

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: To the best of our knowledge, this product is not listed nor does it meet the criteria of a hazardous waste if discarded in its purchased form. However, under RCRA, it is the responsibility of the user to determine at the time of disposal whether a product meets any of the RCRA hazardous waste criteria. This is because product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics under the new Toxicity Characteristics Leaching Procedure (TCLP) 40 Code of Federal Regulations 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: None
CERCLA/SARA Section 313: None above reporting de minimis

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Jennifer Altman, Sr. Regulatory Affairs Specialist

Issue date: 08/05/2014

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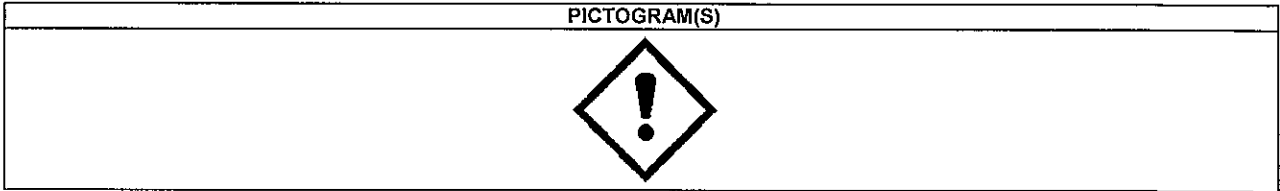
1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite® PL300® Foamboard Construction Adhesive	IDH number:	1421941
Product type:	Water based adhesive	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Telephone:	+1 (800) 624-7767
		MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	ABRASION COULD RELEASE RESPIRABLE PARTICLES OF SILICA QUARTZ, A CANCER HAZARD BY INHALATION. NORMAL USE OF THIS PRODUCT CAUSES NO SUCH RELEASE.
	CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2A



Precautionary Statements

Prevention:	Wash thoroughly after handling. Wear eye and face protection.
Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If eye irritation persists: Get medical attention.
Storage:	Not prescribed
Disposal:	Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	30 - 60
Quartz (SiO2)	14808-60-7	0.1 - 1

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	No specific treatment is necessary since material is not likely to be hazardous by inhalation.
Skin contact:	Wash affected area immediately with soap and water.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If symptoms develop and persist, get medical attention.
Ingestion:	Consult a physician if necessary.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Carbon dioxide, foam, powder Water fog.
Special firefighting procedures:	Use water spray to keep fire exposed containers cool and disperse vapors.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Not available.
Clean-up methods:	Absorb spill with inert material. Shovel material into appropriate container for disposal.

7. HANDLING AND STORAGE

Handling:	Avoid prolonged or repeated skin contact with this material. Keep out of the reach of children.
Storage:	For safe storage, store at or above 0 °C (32°F) Keep from freezing. Store in a cool, dry area. Keep containers closed when not in use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m ³ TWA Total dust.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None

Engineering controls:	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
Respiratory protection:	No personal respiratory protective equipment normally required.
Eye/face protection:	Safety goggles or safety glasses with side shields.
Skin protection:	Suitable protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	pasty
Color:	Blue
Odor:	Mild, acrylic
Odor threshold:	Not available.
pH:	7.0 - 7.5
Vapor pressure:	15 mm hg (20 °C (68°F))
Boiling point/ range:	100 °C (212°F)
Melting point/ range:	Not available.
Specific gravity:	1.224
Vapor density:	Heavier than air
Flash point:	not applicable
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	< 0.6 (Butyl acetate = 1)
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 1 %; 33 g/l (calculated)
Viscosity:	280,000 - 380,000 mPa.s
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen.
Incompatible materials:	None
Reactivity:	Not available.
Conditions to avoid:	Heat. Do not freeze.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin contact

Potential Health Effects/Symptoms

Inhalation: Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.
Skin contact: May cause slight irritation to skin.
Eye contact: May cause slight irritation to eyes on contact.
Ingestion: Not expected to be harmful by ingestion. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Quartz (SiO ₂)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)
Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Delayed Health
CERCLA/SARA Section 313: None above reporting de minimis
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Mary Ellen Roddy, Sr. Regulatory Affairs Specialist

Issue date: 12/15/2014

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Revision Number: 001.0

Issue date: 12/05/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite® PL375™ Heavy Duty Construction Adhesive - VOC	IDH number:	1390601
Product type:	Water based adhesive	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Telephone:	+1 (800) 624-7767
		MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	ABRASION COULD RELEASE RESPIRABLE PARTICLES OF SILICA QUARTZ, A CANCER HAZARD BY INHALATION. NORMAL USE OF THIS PRODUCT CAUSES NO SUCH RELEASE.
	CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2A



Precautionary Statements

Prevention:	Wash thoroughly after handling. Wear eye and face protection.
Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If eye irritation persists: Get medical attention.
Storage:	Not prescribed
Disposal:	Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	30 - 60
Kaolin	1332-58-7	1 - 5
Ethylene glycol	107-21-1	1 - 5

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	If inhaled, immediately remove the affected person to fresh air. Get immediate medical attention.
Skin contact:	Wash affected area immediately with soap and water.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If symptoms develop and persist, get medical attention.
Ingestion:	Consult a physician if necessary.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Use water spray to keep fire exposed containers cool and disperse vapors.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not allow product to enter sewer or waterways.
Clean-up methods:	Scrape up spilled material and place in a closed container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling:	Avoid prolonged or repeated skin contact with this material. Keep out of the reach of children.
Storage:	For safe storage, store at or above 0 °C (32°F). Keep from freezing. Store in a cool, dry area. Keep containers closed when not in use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m ³ TWA Total dust.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
Kaolin	2 mg/m ³ TWA Respirable fraction.	15 mg/m ³ PEL Total dust. 5 mg/m ³ PEL Respirable fraction.	None	None
Ethylene glycol	100 mg/m ³ Ceiling Aerosol.	None	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None

Engineering controls:

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste
Color:	Tan
Odor:	Mild
Odor threshold:	Not available.
pH:	7.2 - 7.8
Vapor pressure:	15 mm hg (20.0 °C (68°F))
Boiling point/range:	100 °C (212°F)
Melting point/ range:	Not available.
Specific gravity:	1.224
Vapor density:	Heavier than air
Flash point:	No flashpoint. Aqueous preparation.
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	< 0.6 (Butyl acetate = 1)
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.1 %; 49 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: Will not occur.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen.

Incompatible materials: This product may react with oxidizing agents.

Reactivity: Not available.

Conditions to avoid: Heat. Do not freeze.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Inhalation, Skin contact

Potential Health Effects/Symptoms

Inhalation: May cause irritation to nose and throat. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.

Skin contact: May cause slight irritation to skin.

Eye contact: May cause slight irritation to eyes on contact.

Ingestion: Not expected to be harmful by ingestion. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Kaolin	Oral LD50 (RAT) = > 5,000 mg/kg Dermal LD50 (RAT) = > 5,000 mg/kg	Nuisance dust
Ethylene glycol	Oral LD50 (RAT) = 5.89 g/kg Dermal LD50 (RABBIT) = 9,530 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Quartz (SiO ₂)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Kaolin	No	No	No
Ethylene glycol	No	No	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Ethylene glycol (CAS# 107-21-1).

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Mary Ellen Roddy, Sr. Regulatory Affairs Specialist

Issue date: 12/05/2014

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Revision Number: 001.2

Issue date: 11/14/2014

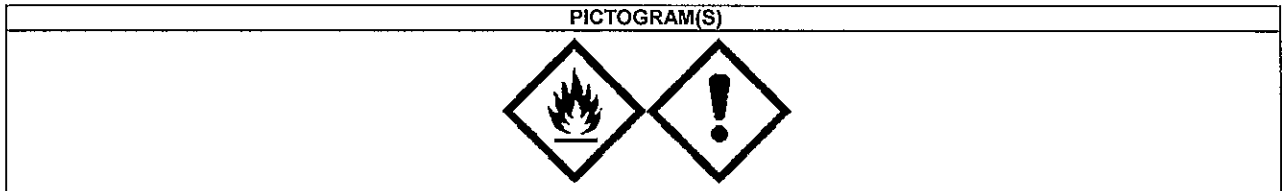
1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite PL400 Subfloor Adhesive	IDH number:	1652275
Product type:	Assembly adhesive, solvent	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Telephone:	+1 (800) 624-7767
		MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
DANGER:	<p>ABRASION COULD RELEASE RESPIRABLE PARTICLES OF SILICA QUARTZ, A CANCER HAZARD BY INHALATION. NORMAL USE OF THIS PRODUCT CAUSES NO SUCH RELEASE.</p> <p>HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION.</p>

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A



Precautionary Statements

Prevention:	<p>Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Wear protective gloves, eye protection, and face protection.</p>
Response:	<p>If on skin (or hair): Take off immediately all contaminated clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.</p>
Storage:	<p>Store in a well-ventilated place. Keep cool.</p>
Disposal:	<p>Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.</p>

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	10 - 30
Kaolin	1332-58-7	10 - 30
Acetone	67-64-1	10 - 30
Pentaerythritol ester of rosin	Proprietary	1 - 5
Methyl acetate	79-20-9	1 - 5
Quartz (SiO ₂)	14808-60-7	0.1 - 1

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	If inhaled, immediately remove the affected person to fresh air. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
Skin contact:	Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Do not induce vomiting, seek medical advice immediately.
Symptoms:	See Section 11.
Notes to physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide. In case of fire, keep containers cool with water spray.
Special firefighting procedures:	Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode. Wear full protective clothing.
Unusual fire or explosion hazards:	Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along floor to an ignition source.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Ventilate area. Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.
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Clean-up methods:

Use noncombustible absorbent material such as sand. Use non-sparking tools for clean-up. Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling:

Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers. Use only in well-ventilated areas. Keep out of the reach of children. Keep away from heat, spark and flame. Containers should be grounded and bonded to the receiving container.

Storage:

For safe storage, store between -20 °C (-4°F) and 50 °C (122°F) Keep away from heat, spark and flame. Keep containers closed when not in use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Kaolin	2 mg/m3 TWA Respirable fraction.	15 mg/m3 PEL Total dust. 5 mg/m3 PEL Respirable fraction.	None	None
Acetone	750 ppm STEL 500 ppm TWA	1,000 ppm (2,400 mg/m3) PEL	None	None
Pentaerythritol ester of rosin	None	None	None	None
Methyl acetate	200 ppm TWA 250 ppm STEL	200 ppm (610 mg/m3) PEL	None	None
Quartz (SiO ₂)	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. When workplace hazards warrant the use of a respirator, appropriate respirators must be used, and a program that follows 29 CFR 1910.134 must be followed.

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Color:
Odor:
Odor threshold:

Liquid or paste
Beige
Acetone-like
Not available.

pH:	7
Vapor pressure:	Not available.
Boiling point/range:	56 - 57 °C (132.8 - 134.6 °F)
Melting point/ range:	< 0 °C (< 32°F)
Specific gravity:	1.44
Vapor density:	2.0
Flash point:	-17 °C (1.4 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	14.4
Solubility in water:	Slightly soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.22 %; 5.67 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
Viscosity:	375,000 mPa.s
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide and irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.
Incompatible materials:	Strong oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Inhalation, Skin contact
-------------------------------------	--------------------------

Potential Health Effects/Symptoms

Inhalation: Irritates the nose, throat and respiratory system. Exposure to high doses may cause central nervous system depression. Such doses may also cause adverse effects in the liver, kidneys, and lungs. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Skin contact: Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

Eye contact: Contact with eyes can cause eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Kaolin	Oral LD50 (RAT) = > 5,000 mg/kg Dermal LD50 (RAT) = > 5,000 mg/kg	Nuisance dust
Acetone	Oral LD50 (RABBIT) = 5,340 mg/kg Oral LD50 (RAT) = 5,800 mg/kg Oral LD50 (RAT) = 9,800 mg/kg Dermal LD50 (RABBIT) = 20,000 mg/kg Inhalation LC50 (RAT, 8 h) = 50.1 mg/l Inhalation LC50 (RAT, 4 h) = 76 mg/l	Blood, Central nervous system, Irritant, Reproductive
Pentaerythritol ester of rosin	None	Irritant
Methyl acetate	Oral LD50 (RABBIT) = 3.7 g/kg	Blood, Central nervous system, Eyes, Irritant
Quartz (SiO ₂)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Kaolin	No	No	No
Acetone	No	No	No
Pentaerythritol ester of rosin	No	No	No
Methyl acetate	No	No	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	No

12. ECOLOGICAL INFORMATION

Ecological information: None expected.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24. If discarded, this product is considered a RCRA ignitable waste, D001.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Adhesives
Hazard class or division: 3
Identification number: UN 1133
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Adhesives
Hazard class or division: 3
Identification number: UN 1133
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: ADHESIVES
Hazard class or division: 3
Identification number: UN 1133
Packing group: II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Fire, Immediate Health, Delayed Health
CERCLA/SARA Section 313: None above reporting de minimis

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s):

7

Prepared by: Mary Ellen Roddy, Sr. Regulatory Affairs Specialist

Issue date: 11/14/2014

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Safety Data Sheet

TYPE 1

Safety Data Sheet dated: 7/28/2015 - version 3

Date of first edition: 5/22/2015

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: TYPE 1

Recommended use of the chemical and restrictions on use

Recommended use: Adhesive

Restrictions on use: N.A.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive

33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Classification of the chemical

No specific hazards are encountered under normal product use.

Label elements

Code	Description
P202	Do not handle until all safety precautions have been read and understood.
P261.B	Avoid breathing dust.
P264.2	Wash skin thoroughly after handling.
P280.I	Wear protective gloves and eye protection.
P501.A	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Quantity	Name	Ident. Numb.	Classification
0.1-1 %	Silica Sand	CAS:14808-60-7	Carc. 1A, H350.A; STOT RE 1, H372.A

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

Date 7/28/2015 Production Name TYPE 1

Page n. 1 of 7

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

N.A.

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Precautions for safe storage, including any incompatibilities

Temperature: N.A.

Incompatible materials:

None in particular.

Precautions as regards storage premises:

Store in adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
Silica Sand	ACGIH			0,025					A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis;

Appropriate engineering controls: N.A.

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

N.A.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Paste white

Odour: Slightly latex like

Odour threshold: N.A.

pH: 8.50

Melting point / freezing point: N.A.

Initial boiling point and boiling range: 100 °C (212 °F)

Flash point: >93,3 °C (199,9 °F)

Evaporation rate: Same as water

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: N.A.

Solubility in water: Dispersible

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

Other information

Substance Groups relevant properties N.A.

Miscibility: N.A.

Fat Solubility: N.A.

Conductivity: N.A.

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Data not Available.

Possibility of hazardous reactions

None.

Conditions to avoid

Stable under normal conditions.

Incompatible materials

None in particular.

Hazardous decomposition products

None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

Silica Sand	a) acute toxicity	LD50 Oral Rat = 500mg/kg
Petroleum distillate	a) acute toxicity	LD50 Skin Rabbit > 2000mg/kg LC50 Inhalation Rat = 4,60000mg/l 4h

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

Substance(s) listed on the IARC Monographs:

Silica Sand Group 1

Substance(s) listed as OSHA Carcinogen(s):

Silica Sand

Substance(s) listed as NIOSH Carcinogen(s):

Silica Sand

Substance(s) listed on the NTP report on Carcinogens:

Silica Sand

12. ECOLOGICAL INFORMATION

Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
0.1-1 %	Silica Sand	CAS: 14808-60-7	LC50 a) Aquatic acute toxicity carp> 10000,00000mg/L 72h

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

14. TRANSPORT INFORMATION

UN number

ADR-UN number: N/A
 DOT-UN Number: N/A
 IATA-Un number: N/A
 IMDG-Un number: N/A

UN proper shipping name

ADR-Shipping Name: N/A
 DOT-Proper Shipping Name: N/A
 IATA-Technical name: N/A
 IMDG-Technical name: N/A

Transport hazard class(es)

ADR-Class: N/A

DOT-Hazard Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

Packing group

ADR-Packing Group: N/A

DOT-Packing group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

Environmental hazards

Marine pollutant: No

Environmental Pollutant: N.A.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N.A.

Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): N/A

DOT-Label(s): N/A

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR-Label: N/A

ADR-Hazard identification number: N/A

ADR-Tunnel Restriction Code: N/A

Air (IATA):

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A

IATA-Subrisk: N/A

IATA-Erg: N/A

IATA-Special Provisions: N/A

Sea (IMDG):

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subrisk: N/A

IMDG-Special Provisions: N/A

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: N/A

IMDG-MFAG: N/A

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

Silica Sand is listed in TSCA Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

no substances listed

Section 304 - Hazardous substances:

no substances listed

Section 313 - Toxic chemical list:

no substances listed

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

no substances listed

CAA - Clean Air Act

CAA listed substances:

no substances listed

CWA - Clean Water Act

CWA listed substances:

no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

Silica Sand Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

Silica Sand

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

Silica Sand

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

Silica Sand

16. OTHER INFORMATION

Code	Description
H350.A	May cause cancer if inhaled.
H372.A	Causes damage to organs through prolonged or repeated exposure if inhaled.

Safety Data Sheet dated: 7/28/2015 - version 3

Product code: 4187

Additional classification information



- HMIS Health: 1 = Slight
- HMIS Health - Is health hazard chronic?: Yes
- HMIS Flammability: 1 = Combustible if heated
- HMIS Reactivity: 0 = Minimal
- HMIS P.P.E.: Safety glasses, gloves
- NFPA Health: 1 = Slight
- NFPA Flammability: 1 = Combustible if heated
- NFPA Reactivity: 0 = Minimal
- NFPA Special Risk: NONE

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
CLP: Classification, Labeling, Packaging.
EINECS: European Inventory of Existing Commercial Chemical Substances.
INCI: International Nomenclature of Cosmetic Ingredients.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION

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Material Safety Data Sheet

Section 1 General Information

Manufacturer:

Zinsser Company, Inc.
173 Belmont Drive
Somerset, NJ 08875
(732) 469-8100

Emergency Telephone: Chemtrec (800) 424-9300

Date: July 18, 2005

Product Name: SureGrip Universal Wallcovering Adhesive

Product Codes: 02871 02872

Section 2 Hazardous Ingredients

<u>Hazardous Component</u>	<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
----------------------------	-------------	---------------------	----------------------

This product contains no hazardous materials as defined by OSHA (29 CFR 1910.1200)

Section 3 Hazard Identification

Emergency Overview: This material is a translucent pink paste with a mild odor. It is water miscible and used as a wallcovering adhesive.

Potential Acute Health Effects:

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: If swallowed, may cause gastrointestinal irritation.

Inhalation: Inhalation is not considered to be a significant route of exposure.

(See also Sections 4, 8, and 11 for related information)

Section 4 First Aid Measures

Eye contact: Flush with water for 15 minutes. Seek medical attention if irritation persists.

Skin contact: Wash material from skin at first opportunity. Contact a physician if symptoms persist.

N/A: Not Applicable N/D: Not Determined N/E: Not Established N/R: Not Required Est.: Estimated

Ingestion: If conscious, give water to drink. Seek medical attention. Do not give anything by mouth to an unconscious person.

Inhalation: If respiratory discomfort is experienced, remove to fresh air. Contact a physician if symptoms persist.

Note to Physician: Treat symptomatically.

Section 5 Fire Fighting Measures

Flash Point (method): > 200° F

Protection of Firefighters: Self-contained breathing apparatus should be worn in fighting all fires involving chemicals.

Fire and Explosion Hazards: None.

Section 6 Accidental Release Measures

Clean Up Methods: For small spills, dike and contain with inert material (sand, earth, etc.) and transfer liquid to containers for recovery or disposal.

For large spills, dike far ahead of the spill. Keep unnecessary people away. Isolate hazard area and deny entry to unauthorized personnel. Stay upwind, keep out of low areas, and ventilate closed spaces before entering. Stop leak if you can do so without risk of injury. Keep spill out of sewer and open bodies of water.

(See also Section 8 for information on Exposure Controls and Personal Protective Equipment)

Section 7 Handling and Storage

Handling: Avoid contact with eyes and skin. Keep out of reach of children.

Storage: Store at moderate temperatures (50° – 100° F). Protect from freezing. Keep container closed when not in use.

Section 8 Exposure Controls / Personal Protection

Respiratory Protection: Respiratory protection is not usually required, however any room where this product is used should have good ventilation (i.e. open windows, exhaust fans, etc.). A good, normal precaution is to wear protective gloves and glasses. No other protection equipment is usually necessary.

N/A: Not Applicable N/D: Not Determined N/E: Not Established N/R: Not Required Est.: Estimated

Personal Protective Equipment (PPE):

Eye Protection: Wear safety glasses, goggles, or face shield to prevent eye contact.

Skin Protection: Wear gloves to prevent prolonged skin contact.

Respiratory Protection: None required under normal intended use conditions. In areas of poor ventilation or if vapor exposure causes discomfort, wear NIOSH approved respirator with organic vapor cartridges.

Protective Clothing: For brief contact, no special precautions other than clean body-covering clothing should be needed. When prolonged or frequent, repeated contact with the material could occur, use protective clothing that is impervious to this material (such as tyvek).

General Hygiene Practices: Wash after handling. Prevent Eye contact. Avoid prolonged skin and inhalation contact. Wash thoroughly before handling food.

Section 9 Physical Data

Appearance: Translucent pink paste.

Odor: Mild odor.

Physical State: Paste.

Specific Gravity (water = 1): 1.01

Boiling Point: >200° F

Melting Point: 32° F

Vapor Pressure: N/D

Vapor Density: N/D

Viscosity: 40,000 – 50,000 cps (@74°F)

pH: 9.5 – 10.0

Solubility in Water: Dilutable in water.

Section 10 Stability and Reactivity

Stability: This product is stable and compatible with all compounds that are compatible with water and water solutions.

Hazardous Polymerization: Hazardous polymerization will not occur.

Section 11 Toxicological Information

Carcinogenicity: NTP: No IARC: No OSHA regulated: No

Section 12 Ecological Information

Chemical Fate and Effects: No data available.

N/A: Not Applicable N/D: Not Determined N/E: Not Established N/R: Not Required Est.: Estimated

Section 13 Disposal Considerations

Recommended Waste Disposal Method: This material is not considered hazardous waste under Federal Hazardous Waste Regulations (40CFR 261). However, state and local requirements for waste disposal may be more restrictive or otherwise differ from federal regulations. Chemical additions, processing or otherwise altering this material may render the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Consult all applicable federal, state, and local regulations regarding the proper disposal of this material.

Section 14 Transportation Information

US DOT Regulated: Not regulated as a hazardous material.

Section 15 Regulatory Information

CERCLA:

The Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification to the National Response Center for releases of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4 (for CERCLA 102).

Components present in this product at a level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS#</u>	<u>Maximum Concentration (Wt. %)</u>
None	N/A	N/A

SARA Title III, section 311/312:

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312).

Components present in this product at a level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS#</u>	<u>Maximum Concentration (Wt. %)</u>
None	N/A	N/A

SARA Title III, section 313:

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313).

Components present in this product at a level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS#</u>	<u>Maximum Concentration (Wt. %)</u>
None	N/A	N/A

N/A: Not Applicable N/D: Not Determined N/E: Not Established N/R: Not Required Est.: Estimated

Disclaimer: Zinsser Company, Inc. believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this material safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials and make no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and data and to comply with all applicable international, federal, state, and local laws and regulations.

N/A: Not Applicable N/D: Not Determined N/E: Not Established N/R: Not Required Est.: Estimated



Print Date: 06-08-2015

CERAMIC TILE ADHESIVE 101
839241PM

SAFETY DATA SHEET

REVISION DATE: 05-27-2015

SUPERSEDES: None

SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

PRODUCT INFORMATION

PRODUCT: CERAMIC TILE ADHESIVE 101
PRODUCT DESCRIPTION: White type I mastic
INTENDED USE: Adhesive
PRODUCT IDENTIFIER: 839241PM

COMPANY INFORMATION

H.B. Fuller Construction Products Inc.
1105 S. Frontenac Street
Aurora, IL 60504
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: This product is not classified as hazardous under GHS criteria.
GHS Precautions:
First Aid Measures: IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. IF IN EYES: Use an eye wash to remove chemical from the eye. IF ON SKIN: Wash with soap and water. IF INHALED: Remove individual to fresh air after an airborne exposure if any symptoms develop.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
Crystalline silica	14808-60-7	1 - 5	Carc. 1A; H350 STOT RE 1; H372	*(see below)

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

SECTION 4: FIRST AID MEASURES

IF IN EYES: Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

IF ON SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

Print Date: 06-08-2015

CERAMIC TILE ADHESIVE 101
839241PM**SAFETY DATA SHEET****SECTION 5: FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS: There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.

SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, Carbon monoxide

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

METHODS FOR CLEAN-UP: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7: HANDLING AND STORAGE

Handling: No special handling instructions due to toxicity.

Storage: Store in a cool, dry place. Protect from freezing
Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE LIMITS:**

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Calcium carbonate	* (see below)	No data available.	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
Crystalline silica	* (see below)	0.025 mg/m ³ TWA (respirable fraction)	((250)/(%SiO ₂ + 5) mppcf TWA (respirable)); ((10)/(%SiO ₂ + 2) mg/m ³ TWA (respirable)); ((30)/(%SiO ₂ + 2) mg/m ³ TWA (total dust))

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

ENGINEERING CONTROL METHODS:

VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures.

EYE PROTECTION: Wear safety glasses when handling this product.

SKIN PROTECTION: Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact.

GLOVES: Not normally required. Use nitrile gloves if conditions warrant.

RESPIRATORY PROTECTION: Respiratory protection may be required to avoid overexposure when

SAFETY DATA SHEET

handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
 Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Semi-solid
COLOR:	White
ODOR:	Mild Solvent
ODOR THRESHOLD:	Not established
pH:	8.8
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	12.00
SPECIFIC GRAVITY:	1.490
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	74.5
VOC, weight percent	0.00

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION
Component Toxicity / Toxicology Data:

COMPONENT NAME	LD50/LC50
Calcium carbonate	ORAL LD50 RAT 6,450 MG/KG
Water	ORAL LD50 RAT > 90 ML/KG
Crystalline silica	ORAL LD50 RAT 500 MG/KG

This product is a mixture. Unless noted, the information below is based on components.

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

SAFETY DATA SHEET

Germ cell mutagenicity: No data available.
Carcinogenicity: Contains a material that may cause cancer.
Reproductive toxicity: No data available.
Specific target organ toxicity-single exposure: No data available.
Respiratory irritation / Narcotic effects: No data available.
Specific target organ toxicity-repeated exposure: No data available.
Target organs potentially affected by exposure: Lungs
Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Lung disease

SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available for this product.
MOBILITY: No data available.
PERSISTENCE: No data available.
BIOACCUMULATION: No data available.

This product has not been tested for ecological effects. Relevant information for components is listed below:

Component:	Ecotoxicity values:
No data available.	Acute Toxicity (Fish): Acute Toxicity (Daphnia): Acute Toxicity (Algae):

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED
IATA: NOT REGULATED

SECTION 15: REGULATORY INFORMATION**INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL: This product contains a component that is not on the DSL. If you are the importer of this product into Canada, contact H.B. Fuller for chemical tracking and notification information.
EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.
KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List

Print Date: 06-08-2015

 CERAMIC TILE ADHESIVE 101
 839241PM

SAFETY DATA SHEET

requirements.

PHILIPPINES: This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.

CHINA IECSC INVENTORY: This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at reg.request@hbfuller.com to request an export review.

FEDERAL REPORTING

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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STATE REPORTING

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Quartz (Carcinogen)	14808-60-7	1 - 5
Formaldehyde (Carcinogen)	50-00-0	< 10 ppm
Ethyl acrylate (Carcinogen)	140-88-5	< 10 ppm
Nickel (Carcinogen)		< 10 ppm
Lead compounds (Carcinogen)		< 10 ppm
Cobalt (Carcinogen)		< 10 ppm
Arsenic compounds (inorganic) (Carcinogen)		< 10 ppm
Methanol (Developmental toxin)	67-56-1	< 10 ppm

Substances of Very High Concern (SVHC) Content:

Unless listed below, this product does not contain SVHC's.

SECTION 16: OTHER INFORMATION

SDS VERSION DATE: 05-27-2015

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842



Print Date: 06-08-2015

SAFETY DATA SHEET

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B. Fuller Construction Products, Inc. from its suppliers, and because H.B. Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B. Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B. Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

Product Data Sheet

GH-57 Universal Wallpaper Paste

Product Numbers: 209864, 209861

Base: Synthetic Polymer

General Properties: Universal Wallpaper Paste makes hanging wallpaper easy. This paste may be used on all surfaces except for poor quality latex paint.

- For all wallpaper
- Longer open time & more slip
- Maximum adhesion
- Eliminates messy water tray
- Hangs up to 4 double rolls

Recommended Uses: For hanging over wallcovering or painted surfaces.

Not Recommended For: Bare Drywall, extremely rough surfaces such as concrete block, stucco, and other rough surfaces.

Non-Compatible Coatings: Teflon or Tedlar Type Surfaces



SPECIFICATION DATA

Percent Solids: Approximately 14%

Coverage: Approx. 250 square feet per gallon

Viscosity: Approximately 14,000 cps

Drying Time: Drying time will vary depending on the temperature, ventilation and humidity of the room.

Storage: Avoid freezing; keep in cool, dry place.

LIMITED WARRANTY

Golden Harvest warrants that it will replace this product free of charge if within 12 months of manufacture it is found defective in material or workmanship. This warranty is in lieu of any other. The exclusive remedy is limited to the replacement of the product and Golden Harvest disclaims all liability for consequential, punitive and special damages. Conditions of use are beyond our control.

Roman Decorating Products • Calumet City, Illinois
Questions? Call 1-800-488-6117.
www.romandecoratingproducts.com

APPLICATION INSTRUCTIONS

Surface Preparation: Surface must be free from grease and other residues, dry, smooth and structurally sound. Check surfaces for loose wallcoverings. Repair all unsound surfaces. Before proceeding with any unusual conditions, consult your adhesive or wallcovering supplier. To check for poor quality latex paint, cut an "x" in the wall and apply clear tape over it. Remove quickly, if there is paint on the tape, you need to prime with a Roman® Primer.

Tinting: N/A

Dilution: Do not dilute.

Application Method: Use only when the room temperature is above 50°F. Apply an even coat covering the entire surface.

Drying Time: Drying time between two vinyls will vary depending on the temperature, ventilation and humidity of the room.

Clean-Up: Before the paste dries, remove excess with warm, clean water. Additional effort may be required if the paste is allowed to contact the surface of embossed or textured vinyls. Paste can be difficult to clean up after it is dry.

WARNING-Roman Decorating Products LLC does not endorse the use of any product in an installation that does not meet a Class A fire rating or any applicable code. Testing by a certified laboratory should be conducted to verify the installation meets a Class A fire rating and to guarantee compliance with all applicable codes. Specifically, if a Roman product is to hang wallpaper over existing wallpaper, it is unlikely to meet these standards.

CAUTION

Do not freeze. Do not take internally. In case of ingestion, seek medical attention. Avoid contact with skin and eyes. Use of skin and eye protection is recommended at all times. If contact with eye occurs, flush with water for 15 minutes. If skin contact occurs, wash with soap and water. Seek medical attention if rash or other symptoms occur. Do not mix with other chemicals. Use in a well ventilated work area. Close container after each use. Keep out of reach of children.

GOLDEN HARVEST UNIVERSAL WALLPAPER PASTE
AND GOLDEN HARVEST UNIVERSAL BORDER PASTE GH-57

Section 1

Manufacturer's Name:
Roman Decorating Products
824 State Street
Calumet City, Illinois 60409

Emergency Assistance:
1-800-488-6117

HMIS Hazard Rating:

FIRE=0 Least=0
HEALTH=1 Slight=1
REACTIVITY=1 Moderate=2
PERSONAL PROTECTION=B High=3
Extreme=4

Reviewed: January 1, 2011

Trade name and Synonyms:

GOLDEN HARVEST UNIVERSAL WALLPAPER PASTE AND
GOLDEN HARVEST UNIVERSAL BORDER PASTE- GH-57

Chemical Name and Synonyms: Copolymer emulsion adhesive
Chemical Family: Synthetic resin emulsion.

Section 2- Ingredients/Identity Information

CAS No.	Chemical Name(s)	OSHA PEL	ACGIH TLV	max %
	No Hazardous Ingredients			

Section 3-Physical/Chemical Characteristics

Appearance and Odor: Opaque white heavy liquid, mild acrid odor
Specific Gravity(water=1): 1.00
Percent Solids by Weight: 10-12
by Volume: 11-12
Solubility in Water: Miscible in all proportions
Boiling Point: 212F
Vapor Density: Same as water
Vapor Pressure: Same as water
Evaporation Point: Same as water
Melting Point: n.a.
Volatile Organic Compounds(VOC,less water): 230 g/l (1.90 lb/gal)
VOC as a percent of the product: 2.5

Section 4-Fire and Explosion Hazard Data

Flash Point(methods used) n.a.
Extinguishing Methods:
Special Fire Fighting Procedures:
Self contained breathing apparatus should be worn in fighting all fires involving general chemicals.
Unusual Fire and Explosion Hazards: None

Section 5-Health Hazard Data

Carcinogenicity: NTP:no IARC:no OSHA regulated: no
Overexposure—Under current OSHA criteria this product is considered non-hazardous.
Emergency First Aid Procedures:
Eyes- Flush with water for 15 minutes, seek medical attention.
Skin- Wash from skin at first opportunity.
Inhalation- No hazardous volatiles
Ingestion- Give water to drink if conscious, seek medical attention.

Section 6-Reactivity Data

This product is stable and compatible with all compounds that are compatible with water and water solutions.
Hazardous polymerization does not occur.

GOLDEN HARVEST UNIVERSAL WALLPAPER PASTE AND
GOLDEN HARVEST UNIVERSAL BORDER PASTE-GH-57

Section 7-Precautions for Safe Handling and Use

Steps to be taken in case the product is released or spilled:

Small spills of 1-2 gallons or less may be diluted 50:1 with water and washed down the drain.

Large spills should be recovered as much as possible and disposed of as non-hazardous liquid waste. Remaining residues can be flushed away as in "small spill" procedure. Consult Federal, State and Local regulations. Product residues may pose a slip hazard; personnel should be careful during clean-up.

Section 8-Control Measures

Respiratory protection is not usually required, however any room where this product is used should have good ventilation, i.e., open windows, exhaust fans, etc. A good, normal precaution is to wear protective gloves and glasses. No other protection equipment is necessary.

Section 9- Special Precautions

Store at moderate temperatures (50-100 F). Protect from freezing. Keep out of the reach of children. Keep container closed when not in use.

SUPPLEMENTAL INFORMATION

Waste Disposal

This product can be handled as a non-hazardous industrial waste.

REGULATORY INFORMATION

Workplace Classifications

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is not a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Transportation Classifications

US DOT Shipping Class --- 60

US DOT Description --- Adhesive Paste NOI

Emergency Planning and Community Right to Know (SARA Title 3)

Section 311/312 Categorizations (40CFR 370)

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

Section 313 Information (40CFR 372)

This product does not contain a chemical which is listed in Section 313 above de minimis concentrations.

CERCLA Information (40CFR 302.4)

Releases of this material to air, land or water are not reportable to the National Response Center under the

Comprehensive Environmental Response, Compensation and Liability Act or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act, Title III Section 304.

RCRA Information

When this product becomes a waste, it is classified as a

non-hazardous waste under criteria of the Resource Conservation and Recovery Act (40CFR 261).

Chemical Control Law Status

All components of this product are listed on the US-EPA Toxic Substance Control Act (TSCA) Chemical Substance Inventory.


All components of this product are listed on the Canadian

Environmental Protection Act Domestic Substances List CEPA-DSL).

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	<h1>Safety Data Sheet</h1>	<p>24 Hour Emergency Phone Numbers Medical/Poison Control: In U.S.: Call 1-800-222-1222</p> <p>Outside U.S.: Call your local poison control center</p> <p>Transportation/National Response Center:</p> <p style="text-align: center;">1-800-535-5053 1-352-323-3500</p> <p><small>NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.</small></p>
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IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

1. Identification

This Material Safety Data Sheet is available in American Spanish upon request.
 Los Datos de Seguridad del Producto pueden obtenerse en Espanol si lo requiere.

Product Name:	Weldwood Original Contact Cement	Revision Date:	6/19/2015
Product UPC Number:	00271, 00272, 00273	Supercedes Date:	7/18/2013
Product Use/Class:	Contact Adhesive	SDS No:	00030503001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)		
Preparer:	Regulatory Department		

2. Hazards Identification

EMERGENCY OVERVIEW: DANGER! Flammable liquid and vapor. Vapors may cause flash fire or explosion. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Keep container closed and away from heat, sparks, and open flame. Store away from caustics and oxidizers. Avoid breathing vapor. Avoid skin and eye contact. Use only with adequate ventilation. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Irritating to eyes, respiratory system and skin. Harmful or fatal if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. May affect the brain or nervous system causing dizziness, headache or nausea.

GHS Classification

Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Carc. 1B, Eye Irrit. 2, Flam. Liq. 2, Muta. 1B, Skin Irrit. 2, STOT RE 2, STOT SE 3 NE, STOT SE 3 RTI

Symbol(s) of Product



Signal Word

Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects . Classified as mutagenic Category 1 if one ingredient is present at or above 0.1% Applies to liquids, Solids (w/w units) and gases (v/v). The substance may also have its own exposure limit. Routes of exposure are dependant on ingredient form.
Carcinogenicity, category 1B	H350	May cause cancer. Classified as carcinogenic Category 1 on the basis of epidemiological and/or animal data. Mixtures are classified as carcinogenic when at least 1 ingredient has been classified as carcinogenic and is present at 0.1% or above Routes of exposure are dependant on ingredient form.
STOT, repeated exposure, category 2	H373	May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do no eat, drink or smoke when using this product.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Toluene	108-88-3	50-75	GHS02-GHS03-GHS07-GHS08	H225-270-302-304-315-332-335-336-373
Methyl ethyl ketone (MEK)	78-93-3	10-25	GHS02-GHS03-GHS07	H225-270-319-332-336
Light aliphatic solvent naphtha	64742-89-8	2.5-10	GHS03-GHS06-GHS08	H270-304-331-340-350
n-Heptane	142-82-5	2.5-10	GHS02-GHS03-GHS07-GHS08	H225-270-304-315-336
Magnesium oxide fume	1309-48-4	1.0-2.5	GHS03	H270

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. NOTE: Only trained personnel should administer artificial respiration or give oxygen.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist. Remove and wash contaminated clothing. DO NOT try to peel the solidified material from the skin or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of this material from the skin. Flush exposed area with water while removing contaminated clothing. Get medical attention if irritation persists. To remove from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water.

FIRST AID - EYE CONTACT: If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Eliminate sources of ignition: heat, electrical equipment, sparks and flames. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Vapors may form explosive mixtures with air. Containers may explode if exposed to extreme heat. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces. Cool fire-exposed containers using water spray.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: NOTE: Review fire hazards before proceeding with clean up. Immediately eliminate sources of ignition. Keep people away from and upwind of spill/leak. Scrape up dried material and place into containers. Prevent product from entering drains. Soak up with inert absorbent material and dispose of as hazardous waste. Read all product instructions before using. Personal protective equipment should include impervious gloves, protective eye wear, and suitable work clothes.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Remove all sources of ignition. Keep away from open flames, hot surfaces and sources of ignition. Provide adequate ventilation. Avoid heat, sparks and open flames. Wear appropriate personal protection. Avoid breathing vapor and contact with eyes, skin and clothing. Use in well ventilated area. Open all windows and doors or use other means to ensure cross-ventilation and fresh air entry during application and drying. Odor is not an adequate warning for hazardous conditions. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion. Wash thoroughly after handling. Do not use in areas where static sparks may be generated. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal. Construction and repair activities can adversely affect indoor air quality. Consult with occupants or a representative (i.e. maintenance, building manager, industrial hygienist, or safety

officer) to determine ways to minimize impact.

STORAGE: Store away from sources of ignition and heat. Do not store at temperatures above 120 degrees F. Store containers away from excessive heat and freezing. Store away from caustics and oxidizers. Keep containers tightly closed.

5 Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Toluene	20 ppm TWA	N.E.	200 ppm TWA	300 ppm Ceiling
Methyl ethyl ketone (MEK)	200 ppm TWA	300 ppm STEL	200 ppm TWA, 590 mg/m ³ TWA	N.E.
Light aliphatic solvent naphtha n-Heptane	N.E. 400 ppm TWA	N.E. 500 ppm STEL	N.E. 500 ppm TWA, 2000 mg/m ³ TWA	N.E. N.E.
Magnesium oxide fume	10 mg/m ³ TWA inhalable fraction	N.E.	15 mg/m ³ TWA fume, total particulate	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: A NIOSH-approved air purifying respirator with an organic vapor cartridge or canister may be necessary under certain circumstances where airborne concentrations are expected to exceed exposure limits. If concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear and appropriate, properly fitted respirator (NIOSH approved) during and after application. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.



SKIN PROTECTION: Solvent-resistant gloves.



EYE PROTECTION: Goggles or safety glasses with side shields.



OTHER PROTECTIVE EQUIPMENT: Provide eyewash and solvent impervious apron if body contact may occur.



HYGIENIC PRACTICES: Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	Tan	Physical State:	Liquid
Odor:	Strong Solvent	Odor Threshold:	Not Established
Density, g/cm³:	0.88 - 0.88	pH:	Not Applicable
Freeze Point, °C:	Not Established	Viscosity (mPa.s):	Not Established
Solubility in Water:	Not Established	Partition Coeff., n-octanol/water:	Not Established
Decomposition Temperature, °C:	Not Established	Explosive Limits, %:	N.I. - N.I.
Boiling Range, °C:	76.7 - 82.2	Auto-Ignition Temperature, °C	Not Established
Minimum Flash Point, °C:	-6.1	Vapor Pressure, mmHg:	No Information
Evaporation Rate:	Faster Than n-Butyl Acetate	Flash Method:	Seta Closed Cup
Vapor Density:	Heavier Than Air		
Combustibility:	Does not support combustion		

(See "Other information" Section for abbreviation legend)

(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Keep away from open flames, hot surfaces and sources of ignition. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Avoid contact with skin, eyes and clothing. Do not smoke.

INCOMPATIBILITY: Open flames, hot surfaces and sources of ignition. Keep away from strong oxidizing agents, heat and open flames. Exothermic reaction with strong acids. Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal decomposition products, i.e., CO_x, NO_x.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Inhalation of vapors may cause irritation of the nose, throat, lungs and respiratory tract. Inhalation of vapors in high concentration may cause shortness of breath (lung edema). Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness.

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Harmful if absorbed through the skin. May cause skin irritation. Prolonged and repeated skin contact may cause dermatitis, drying and defatting due to the solvent properties.

EFFECT OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation. Signs and symptoms may include: pain, tears, swelling, redness and blurred vision.

EFFECT OF OVEREXPOSURE - INGESTION: Harmful or fatal if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause gastrointestinal disturbances with dizziness and central nervous system depression. If ingested, may cause depressed respiration. Aspiration hazard if swallowed. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.

CARCINOGENICITY: No Information

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Skin Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
108-88-3	Toluene	636 mg/kg Rat	8390 mg/kg Rabbit	12.5 mg/L Rat
78-93-3	Methyl ethyl ketone (MEK)	>2737 mg/kg Rat	>5000 mg/kg Rabbit	23.5 mg/L Rat

64742-89-8	Light aliphatic solvent naphtha	5000 mk/kg Mouse	3000 mg/kg Rabbit	> 4.96 mg/L Rat
142-82-5	n-Heptane	5000 mg/kg Rat	3000 mg/kg Rabbit	> 29.29 mg/L Rat
1309-48-4	Magnesium oxide fume	>2000 mg/kg	>2000 mg/kg	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL INFORMATION: Residues and spilled material are hazardous waste due to ignitability. Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste. Liquids cannot be disposed of in a landfill. Do not flush into surface water or sanitary sewer system. Do not empty into drains. Do not re-use empty containers. The container for this product can present explosion or fire hazards, even when emptied. To avoid risk of injury, do not cut, puncture, or weld on or near this container.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT UN/NA Number:	UN1133
DOT Proper Shipping Name:	Adhesives, containing a flammable liquid.
DOT Technical Name:	N.A.
DOT Hazard Class:	3
Hazard SubClass:	N.A.
Packing Group:	III

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Toluene	108-88-3

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

CALIFORNIA PROPOSITION 65 CARCINOGENS

WARNING: This product contains chemicals known to the State of California to cause cancer.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

WARNING: This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class No Information

16. Other Information

Revision Date: 6/19/2015 Supersedes Date: 7/18/2013

Reason for revision: HazCom2012/GHS Conversion

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	2	Flammability:	3	Reactivity:	0	Personal Protection:	X
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VOC Less Water Less Exempt Solvent, g/L:705.5

VOC Material, g/L:704

VOC as Defined by California Consumer Product Regulation, Wt/Wt%:80.4

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

- H225 Highly flammable liquid and vapour.
- H270 May cause or intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H340 May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
- H350 May cause cancer.
- H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02



GHS03



GHS06



GHS07



GHS08



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: FlorCraft Carpet Seam Sealer
PRODUCT CODE: 31D

HMIS CODES: H F R P
1 0 0 B

===== **SECTION I - MANUFACTURER IDENTIFICATION** =====

MANUFACTURERED FOR: TILE PERFECT
ADDRESS: 1105 SOUTH FRONTENAC ST.
AURORA, IL 60504

EMERGENCY PHONE: 800-424-9300 **DATE REVISED:** 05/17/2004
INFORMATION PHONE: 630-978-7766 **DATE PRINTED:** 09/29/2005
NAME OF PREPARER: Michelle Kascak

===== **SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION** =====

COMPONENTS	CAS NUMBER	VAPOR PRESSURE MM HG @ TEMP	WEIGHT PERCENT

This material does not contain any toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

===== **SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS** =====

BOILING POINT: 212 Degrees F. **SPECIFIC GRAVITY (H2O=1):** 1.07
VAPOR DENSITY: As Water **EVAPORATION RATE:** NA
SOLUBILITY IN WATER: Miscible **VOLATILITY/VOL(%):** 30.0% - 32.0%
APPEARANCE/ODOR: White, milky liquid, sweet odor

===== **SECTION IV - FIRE AND EXPLOSION HAZARD DATA** =====

FLASH POINT: NA **METHOD USED:** NA
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: NA **UPPER:** NA

EXTINGUISHING MEDIA: For dry adhesive, use water or carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should be equipped with self-contained breathing apparatus to protect against possible irritating fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: When dried adhesive burns, water, carbon dioxide, carbon monoxide, and smoke are produced. Drums may burst due to steam pressure from extreme temperatures.

===== **SECTION V - REACTIVITY DATA** =====

STABILITY: Stable

CONDITIONS TO AVOID: Borax will coagulate. Avoid materials which react with water.

INCOMPATIBILITY (MATERIALS TO AVOID): See conditions to avoid.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: No data

DOUS POLYMERIZATION: NA

===== SECTION VI - HEALTH HAZARD DATA =====

3 OF ENTRY: Inhalation, ingestion and direct dermal exposure

HEALTH HAZARDS: Inhalation: Adverse health effects from vapors in poorly ventilated areas; may include irritation of the mucous membranes of the nose, throat, respiratory tract and symptoms of headache and nausea.

SIGNS & SYMPTOMS OF EXPOSURE: None expected but excessive inhalation may cause nausea and dizziness.

ACUTE EFFECTS OF OVEREXPOSURE: Headaches, dizziness, eye, nose, throat and lung distress from vapors. Eye contact can cause severe eye irritation, redness, tearing, blurred vision; can cause respiratory irritation and gastric disturbance.

CHRONIC EFFECTS OF OVER EXPOSURE: Prolonged or repeated skin contact may cause irritation and inflammation.

CARCINOGENICITY: NTP: No known effect

IARC MONOGRAPHS: No

OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with large amounts of water lifting eyelids occasionally until irritation subsides. If irritation develops or persist, GET IMMEDIATE ATTENTION.

SKIN: Wash with soap and water. If irritation develops or persist, SEE PHYSICIAN IMMEDIATELY.

INHALATION: Should inhalation problems occur, move victim to fresh air. Aid in breathing if necessary.

INGESTION: Small amounts are not believed to produce adverse health effects. Larger amounts (at least several ounces) should be removed from the stomach by induced vomiting or aspiration.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Contain spill and absorb on inert material and place in containers. Material may also be coagulated with borax for removal.

HAZARDOUS SUBSTANCE SUPERFUND: NA

WASTE DISPOSAL METHOD: Dispose of as per local, state and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in original sealed containers. Protect from temperature extremes. Freezing will damage material

OTHER PRECAUTIONS: Supply sufficient ventilation.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION: NA

VENTILATION: Local exhaust; Use with adequate ventilation. Open doors and windows. Utilize other means to insure fresh air entry and exhaust.

PROTECTIVE CLOTHES/GLOVES: Protective gloves are recommended.

EYE PROTECTION: Safety goggles required

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required

WORK/HYGENIC PRACTICES: Avoid prolonged or repeated skin contact, or wear impervious protective clothing. Thorough washing of skin after work and before eating, drinking, smoking, or using toilet facilities. Wash clothing after use.

===== **SECTION IX - SHIPPING INFORMATION** =====

D.O.T. PROPER SHIPPING NAME: Adhesives

HAZARDOUS SUBSTANCE 49CFR CERCLA: NA

HAZARD CODE: NA

D.O.T. HAZARD CLASS: Not Regulated

D.O.T. LABELS REQUIRED: NA

D.O.T. PLACARDS REQUIRED: NA

POISON CONSTITUENT: NA

BILL OF LADING DESCRIPTION: Adhesives

CC NO: NA

UN/NA CODE: Not-Regulated

CHEMICAL EMERGENCY: CHEMTREC 24 HOURS: 1-800-424-9300

===== **SECTION XI - OTHER REGULATORY INFORMATION** =====

TSCA INVENTORY STATUS: Listed on Inventory: Yes

PROPOSITION 65:

If your business resides in the state of California or if you supply products directly or indirectly into California, we are providing this information to you pursuant to the California Safe Drinking Water and Toxic Act of 1986 (commonly known as proposition 65). This law requires, in part, that "no person in the course of doing business shall knowingly and intentionally expose any individual to chemicals known to the state to cause cancer or reproductive toxicity without first exempt from the warning requirements "an exposure for which the person responsible can show that the exposure poses no significant risk..." (Section 25249.10).

MATERIAL SAFETY DATA SHEET

There may be small, perhaps undetectable amounts, of other naturally occurring chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm. This warning is provided in the absence of definitive testing to prove that these risks do not exist. These amounts are typical quantities and may be below the Proposition 65 level of concern, or could even be zero.

OSHA Standard 29CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you and it is your legal duty to, make all information in this material safety data sheet available to your employees.

The Following ingredients are considered to be classified as per OSHA HazardCommunication Standard (29CFR1910.1200):

NA

===== SECTION X - DISCLAIMER INFORMATION =====

*****THE CRITERIA FOR LISTING COMPONENTS IN THE HAZARDOUS INGREDIENTS SECTIONS IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1% OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0% OR GREATER.**

While this information and recommendations set forth herein are believed to be accurate as of the date hereof, TILE PERFECT MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

The information contained within the MSDS is considered propriety and is a trade secret. Unauthorized distribution or duplication of this information is prohibited.



SECTION 1: Identification and Company Details

Product Name: Latex Seam Sealer
Product Code: AC17

Manufacturer/ Supplier: Roberts Consolidated Industries, Inc.
Address: 300 Cross Plains Blvd.
Dalton, GA 30721

Emergency Phone: (800) 424-9300 (24-hour Response / CHEMTREC)
Product Information: (706) 277-5294

Recommended Use: Adhesive

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture: This product is not classified as hazardous under GHS criteria.

SECTION 3: Composition / Information on Ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, or have been assigned a workplace exposure limit and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First-Aid Measures

Inhalation: Move victim to fresh air. Consult physician if necessary.
Skin Contact: Wash with soap and water. Remove contaminated clothing. Consult physician if necessary.
Eye Contact: Flush with copious amounts of water for at least 15 minutes. Consult physician if necessary.
Ingestion: Do not induce vomiting. Wash mouth with water. Consult physician.
Note to Physician: *Eyes:* Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation. *Skin:* Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. *Ingestion:* Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. *Respiratory:* Treatment is essentially symptomatic. Remove individual with symptoms from exposure and assist in breathing if necessary.

SECTION 5: Fire-Fighting Measures

Extinguishing Media: This product is not flammable. Use fire- extinguishing media appropriate for surrounding materials.
Hazardous Combustion Products: No particular hazards known.
Protection of Firefighters: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

SECTION 6: Accidental Release Measures

Personal Precautions: Use protective gloves, goggles and suitable protective clothing.
Environmental Precautions: Do not allow product to get into drains, soil, or surface water.
Methods of Clean-up: Small spillages: Absorb with sand or other inert absorbent. Large spillages: Dam and absorb. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Wear necessary protective equipment.

SECTION 7: Handling and Storage

Handling Precautions: Provide good ventilation. Do not use in confined spaces without adequate ventilation and/or respirator. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product.
Storage: Keep separate from food, feedstuffs, fertilizers and other sensitive material. Store in closed original container at temperatures between 5°C and 30°C/ 40°F and 86°F. Protect from freezing and direct sunlight.

SECTION 8: Exposure Control / Personal Protection

Exposure Guidelines: Not determined
Engineering Controls: Provide adequate ventilation.
Personal Protective Equipment:
Skin Protection - Permeation resistant gloves (butyl rubber, nitrile rubber, PVC or polyvinyl alcohol).
Eye/Face Protection - Glasses with side shields, chemical splash goggles and/or face shield.

<u>Chemical Name / CAS No.</u>	<u>OSHA Exposure Limits</u>	<u>ACGIH Exposure Limits</u>	<u>Other Exposure Limits</u>
None			

SECTION 9: Physical and Chemical Properties

Appearance: Creamy, off-white liquid
Odor: Slight ammonia odor
Relative Density: 0.9
Odor Threshold: Not available
Solubility: Miscible in water
pH: 10-11
Partition Coefficient: n-octanol/water; Not determined
Melting Point: Not determined
Freezing Point: Not determined
Auto-ignition Temperature: Not determined
Flash Point: Non- flammable > 204 C (400 F) Cleveland Closed Cup
Decomposition Temperature: Not determined
Evaporation Rate: Not determined
Viscosity: Not determined
Flammability (Solid/Gas): Not applicable
Upper/Lower Flammability: Not determined
VOC Content: <1 g/L
Vapor Pressure: Not Determined
Boiling Point: 100°C/ 212°F

SECTION 10: Stability and Reactivity

Chemical Stability: Stable under normal temperature conditions and recommended use.
Conditions to Avoid: Excessive heat, direct sunlight and/or frost.
Materials to Avoid: Water, amines, strong bases, and alcohols.

SECTION 11: Toxicological Information

Acute toxicity: None
Ingestion: Not determined
Inhalation: Not determined
Skin Contact: Not determined.

SECTION 12: Ecological Information

Mobility and Bioaccumulation Potential: Not determined
Degradation: Not determined
Aquatic Toxicity: Not determined
LC50 – 24 hour (Static): Not determined

SECTION 13: Disposal Considerations

Disposal: Dispose of waste and residues in accordance with local authority requirements. Incineration is the preferred method of disposal.
Wastes or Residues: Same as above.

SECTION 14: Transport Information

Road: DOT Proper Shipping Name: **Non-Regulated**
DOT Packing Group: N/A
DOT Label: N/A
UN Number: N/A

Ocean: Proper Shipping Name: **Non-Regulated**
Sea – IMO/IMDG Class: N/A
UN Number: N/A
Label: N/A
Packing Group: N/A
Marine Pollutant: N/A
EMS: N/A

Air: Proper Shipping Name: **Non-Regulated**
Air – ICAO/IATA Class: N/A
UN Number: N/A
Label: N/A
Sub Class: N/A
Packing Group: N/A
Pack Instr. Passenger: N/A
Pack Instr. Cargo: N/A

Status on Substance Lists: The concentrations shown in this document are maximum levels (weight %) to be used for regulations.

TSCA: The components of this product are contained on the chemical substance inventory list
IARC: Not carcinogenic
OSHA PEL's: None

Federal EPA: Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA):
Requires notification of the national response center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components

present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% by Weight	RQ
None	None	None	None

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III: Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQ) in 40 CFR 355. Components present in this product at level which could require reporting under this statute are:

Chemical Name	CAS Number	% by Weight	RQ
None	None	None	None

Section 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known- **None**

NJ RTK
1336-21-6 Ammonium hydroxide

Pennsylvania RTK
1336-21-6 Ammonium hydroxide

SARA 302 Extremely Hazardous Substances
None

Massachusetts RTK
1336-21-6 Ammonium hydroxide

EPA Hazard Classifications:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard
No	No	No	No	No

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDSs that are distributed for this material. Components present in this product at level which could require reporting under the statute are: **None**

Canada DSL: All components are on the DSL list or exempt.

California Proposition 65: Does not contain any listed chemical to the best of our knowledge.

SECTION 16: Other Information

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

HMIS RATING: HEALTH-1, FLAMMABILITY-0, REACTIVITY-0, PERSONAL PROTECTION- B.

Prepared by: Roberts Consolidated Product Safety & Regulatory Compliance Group, (706) 277-5294

The information herein is given in good faith, but no warranty expressed or implied is made. Roberts Consolidated urges users of this product to evaluate its suitability and compliance with local regulations as Roberts Consolidated cannot foresee the final use of the product, nor the final location of usage.

Date of issue: 6/03/15

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Franklin International
MATERIAL SAFETY DATA SHEET

MSDS Name: Titebond II Premium Wood Glue
MSDS Number: 5004
Revision Date: 6/14/04

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Titebond II Premium Wood Glue
CAS Number: none
HMIS Hazard Rating: Health: 1 Fire: 1 Reactivity: 0

Company Identification: Franklin International
2020 Bruck Street
Columbus OH 43207

Contact: Franklin Technical Services
Telephone/Fax: (800) 877-4583 (614) 445-1493
Emergency Phone (24 Hour): Franklin Security
(614) 445-1300
Chemtrec (24 Hour): (800) 424-9300
Chemtrec International: (703) 527-3887

Product Class: **CROSSLINK POLYVINYL ACETATE**
Product Use: wood glue
Product Code: 5000

Division: Construction Adhesives & Sealants

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Percent
Product contains no hazardous ingredients or they are below reportable levels.		

OSHA PELs & ACGIH TLVs are listed in Section 8 where applicable.

SECTION 3 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Cream colored water-based adhesive. Slippery in the wet state.

ROUTES OF ENTRY:

Ingestion: Yes
Inhalation: Yes
Skin: Yes
Eye: Yes

INHALATION:

Vapors and/or aerosols which may be formed at elevated temperature may be irritating to eyes and respiratory tract.

No reported incidents of adverse health affects resulting from

inhalation of vapors at room temperature.

INGESTION:

No hazard expected in normal industrial use. Ingestion is not a likely route of exposure.

SKIN:

Prolonged or repeated skin contact can cause irritation.

EYE:

Substance may cause moderate eye irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None identified.

CARCINOGENICITY:

IARC: No

NTP: No

LA: No

REPRODUCTIVE TOXICITY:

product has not been evaluated for reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

INHALATION:

Remove patient to fresh air, if discomfort persists seek medical attention.

INGESTION:

Call poison control center immediately. Follow their specific instructions. Do not induce vomiting.

SKIN:

Wash with soap and water. Contact a physician if irritation develops or persists.

EYE:

Hold eyelids apart and flush with plenty of water for at least 15 minutes. Seek medical attention.

SECTION 5 - FIRE-FIGHTING MEASURES

Flammability Class (OSHA) IIIB

Flash Point: Not Applicable

Explosive Range: Not Applicable

EXTINGUISHING MEDIA:

Use alcohol foam, carbon dioxide, water spray, or ABC dry chemical when fighting fires involving this product.

HAZARDOUS COMBUSTION PRODUCTS:

Oxides of carbon.

FIRE FIGHTING PROCEDURES:

Wear a NIOSH approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:

Use inert absorbent to dike the spill. Keep away from drains.

CLEAN-UP:

If possible pump liquid into an approved container or spread absorbent over spill and shovel product/absorbent mixture into an approved container. If product has dried scrape up and place in an approved container.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Empty drums should be completely drained, properly bunged and promptly returned to a reconditioner, or properly disposed of.

Use only in well ventilated area.

STORAGE:

Keep from freezing.

Store at temperatures between 50 F and 90 F.

PRECAUTIONARY STATEMENT:

Keep out of the reach of children.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
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ENGINEERING CONTROLS:

Use local exhaust as needed to maintain occupational exposure limits.

OTHER:

Facilities storing or utilizing any chemical should be equipped with an eyewash facility and a safety shower.

RESPIRATORY PROTECTION:

Where exposure limits may be exceeded select a NIOSH approved respirator with appropriate Protection Factor and cartridge for the specific contaminants. Follow requirements for respiratory protection in OSHA 1910.134.

EYE PROTECTION:

Chemical splash goggles (ANSI Z87.1 or approved equivalent).

SKIN PROTECTION:

Where skin contact can occur, wear impervious gloves.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Appearance/Color:	cream
Odor:	Mild
Solubility (in water):	Dispersible in water
pH Value:	3.
Boiling Range/Point:	210.øF
Evaporation Rate:	Slower than n-Butyl Acetate
% Volatile:	52.%
Specific Gravity:	1.09
VOC:	13.7 g/l

SECTION 10 - STABILITY AND REACTIVITY

Stability: This product is stable
Hazardous Polymerization: Hazardous polymerization will not occur

CONDITIONS TO AVOID:

None.

INCOMPATIBILITY:

Strong acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of carbon may be released during combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute and chronic health effects are not expected as long as good industrial hygiene and safety precautions are followed.

SECTION 12 - ECOLOGICAL INFORMATION

This formulation has not been tested for environmental effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Disposal of this product must comply with all applicable federal, state and local regulations.

CONTAINER DISPOSAL:

Disposal of this container should comply with all applicable federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

UN Number	none
UN Pack Group	N/A
UN Class	Nonhaz
ICAO/IATA Class	Nonhazardous
IMDG Class	Nonhazardous
Shipping Name	Nonhazardous

Packaging may not be approved for shipping by air. Please contact Franklin International for further information.

SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic Substances Control Act Inventory):

All components of this product are listed on the TSCA inventory except as exempted.

PENNSYLVANIA:

Special hazardous components required to be listed at .01% or more:
formaldehyde; formaldehyde; 50-00-0

Non-hazardous components required to be listed at 3% or more:

polyvinyl acetate emulsion 113408-93-8; polyvinyl alcohol 25213-24-5

NEW JERSEY:

polyvinyl acetate emulsion 113408-93-8; water 7732-18-5; aluminum chloride 7784-13-6; polyvinyl alcohol 25213-24-5; n-methylolacrylamide 924-42-5

SECTION 16 - OTHER INFORMATION

DISCLAIMER:

While the information and recommendations set forth herein are believed to be accurate as of the data hereof, Franklin International makes no warranty, express or implied, with respect thereto and disclaims all liability from reliance thereon.

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MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name G5 Epoxy Adhesive
Version # 01
Revision date 06-09-2010
CAS # Mixture
Product Code G5
Product use Concrete anchoring adhesive.
Manufacturer/Supplier ITW Red Head
2171 Executive Drive, Suite 100
Addison, IL 60101 US
Telephone Number: (630) 350-0370
Contact Person: Andrew Rourke
Emergency CHEMTREC: (800) 424-9300

2. Hazards Identification

Physical state Solid.
Appearance Paste.
Emergency overview DANGER!

Causes skin and eye burns. Causes severe respiratory tract irritation. Harmful if inhaled, absorbed through skin, or swallowed. May cause sensitization by skin contact. Prolonged exposure may cause chronic effects.

OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

Routes of exposure

Inhalation. Ingestion. Skin contact. Eye contact.

Eyes

Causes eye burns. Risk of corneal damage. Contact may cause irritation, redness, tearing, blurred vision and/or burns.

Skin

Causes skin burns. Harmful if absorbed through the skin. May cause sensitization by skin contact. Contact may cause irritation, redness and/or drying.

Inhalation

Harmful if inhaled. Causes severe respiratory tract irritation. Vapors irritate the respiratory system, and may cause coughing and difficulties in breathing.

Ingestion

Harmful if swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Target organs

Eyes. Skin. Respiratory system. Lungs.

Chronic effects

Can cause kidney, liver, lung and central nervous system damage. Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility. Contains a component that is listed as an IARC 1 (Known Human Carcinogen), a NTP Known Carcinogen and an ACGIH A2 (Suspected Human Carcinogen). Overexposure can cause lung damage - pulmonary toxin.

Potential environmental effects

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Bisphenol A Epoxy Resin (Part A)	25068-38-6	50 - 99
Amine Blend (Part B)	Trade Secret	Trade Secret

4. First Aid Measures

First aid procedures

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.
Notes to physician	Keep victim under observation. In case of shortness of breath, give oxygen. Symptoms may be delayed.
General advice	Take off contaminated clothing and shoes immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria. Material may burn but not ignite readily.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Protection of firefighters	
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. Water runoff can cause environmental damage.
Special protective equipment for fire-fighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Specific methods	In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	Carbon monoxide. Carbon Dioxide. Nitrogen oxides (NO _x). Hydrogen chloride. Silicon oxides.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Collect spillage. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Small Spills: Absorb spill with vermiculite or other inert material. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste. Should not be released into the environment. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Do not allow material to contaminate ground water system.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Wear personal protective equipment. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged exposure. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. When using, do not eat, drink or smoke. Avoid release to the environment.
Storage	Keep container tightly closed. For maximum shelf life, store between 4.4°C (40°F) to 26.7°C (80°F). Do not store above 43.3°C (110°F). Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m ³	Amine Blend Ingredient 2
	TWA	0.025 mg/m ³	Amine Blend Ingredient
		5 ppm	Amine Blend Ingredient

U.S. - OSHA			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	PEL	5 ppm	Amine Blend Ingredient 1
	TWA	0.42 mg/m3	Amine Blend Ingredient 3 (total dust)
		0.14 mg/m3	Amine Blend Ingredient 3 (respirable)
Canada - Alberta			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m3	Amine Blend Ingredient 2
	TWA	0.025 mg/m3	Amine Blend Ingredient 3
		5 ppm	Amine Blend Ingredient 1
Canada - British Columbia			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m3	Amine Blend Ingredient 2
	TWA	0.025 mg/m3	Amine Blend Ingredient 3
		5 ppm	Amine Blend Ingredient 1
Canada - Ontario			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m3	Amine Blend Ingredient 2
	TWA	0.1 mg/m3	Amine Blend Ingredient 3
		5 ppm	Amine Blend Ingredient 1
Canada - Quebec			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m3	Amine Blend Ingredient 2
	STEL	0.1 mg/m3	Amine Blend Ingredient 3
		5 ppm	Amine Blend Ingredient 1
Mexico			
Components	Type	Value	Form
Amine Blend (Part B) (Trade Secret)	Ceiling	0.1 mg/m3	Amine Blend Ingredient 2
	STEL	10 ppm	Amine Blend Ingredient 1
		5 ppm	Amine Blend Ingredient 1
	TWA	0.1 mg/m3	Amine Blend Ingredient 3

Engineering controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal protective equipment

- Eye / face protection** Wear safety glasses with side shields (or goggles) and a face shield.
- Skin protection** Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.
- Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
- General hygiene considerations** Avoid contact with eyes. Avoid contact with skin. Provide eyewash station and safety shower. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

- Appearance** Paste.
- Color** Beige/Gray.
- Odor** Characteristic.
- Odor threshold** Not available.
- Physical state** Solid.
- Form** Paste.
- pH** Not available.
- Melting point** Not available.
- Freezing point** Not available.
- Boiling point** > 212 °F (> 100 °C) Part B
> 400 °F (> 204.4 °C) Part A

Flash point	> 212 °F (> 100 °C)
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	Not available.
Solubility (water)	None.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Density	1.2 g/cm ³ Part A 1.7 g/cm ³ Part B

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Elevated temperatures.
Incompatible materials	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NO _x). Silicon oxides. Hydrogen chloride.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Local effects	Causes skin and eye burns. Causes severe respiratory tract irritation. Harmful if inhaled, absorbed through skin, or swallowed. May cause sensitization by skin contact.
Sensitization	May cause an allergic skin reaction.
Chronic effects	Can cause kidney, liver, lung and central nervous system damage. Overexposure can cause lung damage.
Carcinogenicity	Contains a component that is listed as an IARC 1 (Known Human Carcinogen), a NTP Known Carcinogen and an ACGIH A2 (Suspected Human Carcinogen).
Mutagenicity	This product is not expected to cause mutagenic or genotoxic effects.
Neurological effects	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.
Reproductive effects	Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility.
Teratogenicity	Components in this product have been shown to cause teratogenic effects in laboratory animals.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	Not available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

Product Specific Note:

This product meets the limited quantities exception requirements for the below listed transportation agencies. Under DOT and TDG regulations, this product may be reclassified as a Consumer Commodity (ORM-D). Please see the specific regulations for the shipping and packaging requirements.

DOT

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Labels required	None

Additional information:

Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None

IATA

Basic shipping requirements:

UN number	2735
Proper shipping name	Amines, liquid, corrosive, n.o.s. (Amine Blend (Part B))
Hazard class	8
Packing group	III

IMDG

Basic shipping requirements:

UN number	2735
Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (Amine Blend (Part B))
Hazard class	8
Packing group	III
EmS No.	F-A, S-B

TDG

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Labels required	None

Additional information:

Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None



IATA



IMDG

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA (Superfund) reportable quantity (lbs)

Amine Blend (Part B) 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Drug Enforcement Agency (DEA) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC
E - Corrosive

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains chemicals known to the State of California to cause cancer.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 3*
Flammability: 1
Physical hazard: 0

NFPA ratings Health: 3
Flammability: 1
Instability: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

06-09-2010

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Safety Data Sheet

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Document Group:	23-3000-9	Version Number:	4.00
Issue Date:	05/08/15	Supersedes Date:	05/14/13

SECTION 1: Identification

1.1. Product identifier

3M™ Hi-Strength 90 Cylinder Spray Adhesive, Clear

Product Identification Numbers

62-4994-8030-9, 62-4994-8150-5, 62-4994-8300-6

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, Industrial use

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Liquid: Category 1.

Serious Eye Damage/Irritation: Category 2A.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (central nervous system): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable liquid and vapor.

Causes serious eye irritation.
May cause drowsiness or dizziness.
May displace oxygen and cause rapid suffocation.

Causes damage to organs:
cardiovascular system |

Precautionary Statements

Attention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not use on bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed: Call a POISON CENTER or doctor/physician.
Specific treatment (see Notes to Physician on this label).
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Dimethyl Ether	115-10-6	15 - 40 Trade Secret *
Non-Volatile Components	Trade Secret*	10 - 30 Trade Secret *
Pentane	109-66-0	10 - 30 Trade Secret *
Cyclohexane	110-82-7	10 - 30 Trade Secret *
Acetone	67-64-1	10 - 30 Trade Secret *
Isobutane	75-28-5	5 - 10 Trade Secret *
Propane	74-98-6	5 - 10 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. Get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products**Substance**

Aldehydes
Hydrocarbons
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Pentane	109-66-0	ACGIH	TWA:1000 ppm	
Pentane	109-66-0	OSHA	TWA:2950 mg/m3(1000 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	OSHA	TWA:1050 mg/m3(300 ppm)	
Dimethyl Ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Dimethyl Ether	115-10-6	CMRG	TWA:1000 ppm	

Acetone	67-64-1	ACGIH	TWA:500 ppm;STEL:750 ppm	A4: Not class. as human carcin
Acetone	67-64-1	OSHA	TWA:2400 mg/m3(1000 ppm)	
Propane	74-98-6	ACGIH	Limit value not established:	
Propane	74-98-6	OSHA	TWA:1800 mg/m3(1000 ppm)	
Isobutane	75-28-5	ACGIH	STEL:1000 ppm	
Natural gas	75-28-5	ACGIH	Limit value not established:	

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
 Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
 Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
 Half facepiece or full facepiece air-purifying respirator suitable for organic vapors
 Half facepiece or full facepiece supplied-air respirator
 Organic vapor respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Odor, Color, Grade:	clear, solvent odor
Odor threshold	No Data Available
pH	Not Applicable

Melting point	<i>Not Applicable</i>
Boiling Point	<=68 °F
Flash Point	-50 °F [<i>Test Method: Closed Cup</i>] [<i>Details: Flammable Gas</i>]
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1.2 % volume
Flammable Limits(UEL)	27 % volume
Vapor Pressure	84.7 psia [<i>@ 68 °F</i>]
Vapor Density	>=1.0 [<i>Ref Std: AIR=1</i>]
Density	0.69 g/ml
Specific Gravity	0.69 [<i>Ref Std: WATER=1</i>]
Solubility in Water	Nil
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>Not Applicable</i>
Viscosity	<i>Not Applicable</i>
Hazardous Air Pollutants	0 % weight [<i>Test Method: Calculated</i>]
VOC Less H2O & Exempt Solvents	<=592 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Solids Content	10 - 30 %

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE > 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Dimethyl Ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-	Rat	LC50 > 18 mg/l

	Vapor (4 hours)		
Pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Non-Volatile Components	Dermal	Rabbit	LD50 > 2,000 mg/kg
Non-Volatile Components	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Pentane	Rabbit	Minimal irritation
Isobutane	Professional judgement	No significant irritation
Propane	Rabbit	Minimal irritation
Cyclohexane	Rabbit	Mild irritant
Non-Volatile Components	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Pentane	Rabbit	Mild irritant
Isobutane	Professional judgement	No significant irritation
Propane	Rabbit	Mild irritant
Cyclohexane	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Pentane	Guinea pig	Not sensitizing

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Dimethyl Ether	In Vitro	Not mutagenic
Dimethyl Ether	In vivo	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Pentane	In vivo	Not mutagenic
Pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Isobutane	In Vitro	Not mutagenic
Propane	In Vitro	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Dimethyl Ether	Inhalation	Rat	Not carcinogenic
Acetone	Not Specified	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	Not toxic to female reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	Not toxic to male reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	Not toxic to development	Rat	NOAEL 40,000 ppm	during organogenesis
Acetone	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Acetone	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5.2 mg/l	during organogenesis
Pentane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Pentane	Inhalation	Not toxic to development	Rat	NOAEL 30 mg/l	during organogenesis
Cyclohexane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 6.9 mg/l	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl Ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the	Human	NOAEL Not	

			data are not sufficient for classification		available	
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Pentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Pentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Pentane	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL Not available	not available
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	All data are negative	Mouse	NOAEL Not available	
Propane	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
Propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propane	Inhalation	respiratory irritation	All data are negative	Human	NOAEL Not available	
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 20,000 ppm	30 weeks
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	All data are negative	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for	Rat	NOAEL 2,500	13 weeks

			classification		mg/kg/day	
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are negative	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	All data are negative	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	All data are negative	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	All data are negative	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Pentane	Inhalation	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Ingestion	kidney and/or bladder	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 days
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,500 ppm	13 weeks
Cyclohexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	All data are negative	Rat	NOAEL 8.6 mg/l	30 weeks

Aspiration Hazard

Name	Value
Pentane	Aspiration hazard
Cyclohexane	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Cyclohexane	110-82-7	10 - 30

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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Safety Data Sheet

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Issue Date:	01/16/15	Supersedes Date:	08/05/10

SECTION 1: Identification

1.1. Product identifier

3M(TM) Hi-Tack Spray Adhesive 76

Product Identification Numbers

62-4943-4920-2, 62-4943-4921-0, 62-4943-4950-9, 62-4943-4955-8

1.2. Recommended use and restrictions on use

Recommended use

aerosol adhesive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Aerosol: Category 1.

Serious Eye Damage/Irritation: Category 2B.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (central nervous system): Category 3.

Specific Target Organ Toxicity (respiratory irritation): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable aerosol.

Causes eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May displace oxygen and cause rapid suffocation.

Causes damage to organs:
cardiovascular system |

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed: Call a POISON CENTER or doctor/physician.
Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.
Keep container tightly closed.
Store locked up in a well-ventilated place.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Hazards not otherwise classified

None.

2% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
------------	------------	---------

Dimethyl ether	115-10-6	35 - 45 Trade Secret *
Methyl acetate	79-20-9	20 - 30 Trade Secret *
Non-hazardous components (N.J.T.S Reg No. 04499600-6481P)	Trade Secret*	10 - 20 Trade Secret *
Cyclohexane	110-82-7	7 - 13 Trade Secret *
1,1-Difluoroethane	75-37-6	1 - 5 Trade Secret *
Light petroleum distillates	64742-47-8	0.5 - 1.5 Trade Secret *
Petroleum Naptha	64742-48-9	0.5 - 1.5 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	OSHA	TWA:1050 mg/m3(300 ppm)	
Dimethyl ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Dimethyl ether	115-10-6	CMRG	TWA:1000 ppm	
JET FUELS (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOR	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., Skin Notation
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., Skin Notation
Light petroleum distillates	64742-47-8	CMRG	TWA:165 ppm	
Petroleum Naptha	64742-48-9	Manufacturer determined	TWA:100 ppm	
1,1-Difluoroethane	75-37-6	CMRG	TWA:1000 ppm	
1,1-Difluoroethane	75-37-6	AIHA	TWA:2700 mg/m3(1000 ppm)	
Methyl acetate	79-20-9	OSHA	TWA:610 mg/m3(200 ppm)	
Methyl acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Butyl Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece supplied-air respirator
Organic vapor respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Gas
Specific Physical Form:	Aerosol
Odor, Color, Grade:	clear-amber, mild solvent odor
Odor threshold	No Data Available
pH	No Data Available
Melting point	No Data Available
Flash Point	-40 °F [Test Method: Tagliabue Closed Cup]
Evaporation rate	1.90 [Ref Std: ETHER=1]
Flammability (solid, gas)	Flammable Aerosol: Category 1.
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Density	2.97 [Ref Std: AIR=1]
Density	0.782 g/ml

Specific Gravity	0.782 [Ref Std: WATER=1]
Solubility in Water	Nil
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	Not Applicable
Viscosity	Not Applicable
Hazardous Air Pollutants	0 % weight [Test Method: Calculated]
Volatile Organic Compounds	<=428 g/l [Test Method: calculated SCAQMD rule 443.1] [Details: low solids less exempts]
Volatile Organic Compounds	<=3.57 lb/gal [Test Method: calculated SCAQMD rule 443.1] [Details: low solids less exempts]
Percent volatile	Approximately 85 % weight
VOC Less H2O & Exempt Solvents	<=54.7 % [Test Method: calculated per CARB title 2]
Solids Content	7.1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Dimethyl ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Methyl acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl acetate	Inhalation-Vapor (4 hours)	Rat	LC50 > 49 mg/l
Methyl acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
1,1-Difluoroethane	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
1,1-Difluoroethane	Ingestion	Rat	LD50 > 1,500 mg/kg
Non-hazardous components (N.J.T.S Reg No. 04499600-6481P)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Non-hazardous components (N.J.T.S Reg No. 04499600-6481P)	Ingestion	Rat	LD50 > 5,000 mg/kg
Petroleum Naptha	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
Light petroleum distillates	Dermal	Rabbit	LD50 > 3,160 mg/kg
Petroleum Naptha	Dermal	Rabbit	LD50 > 3,000 mg/kg
Light petroleum distillates	Inhalation-	Rat	LC50 > 3.0 mg/l

	Dust/Mist (4 hours)		
Light petroleum distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Petroleum Naptha	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl acetate	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Non-hazardous components (N.J.T.S Reg No. 04499600-6481P)		No significant irritation
Light petroleum distillates	Rabbit	Mild irritant
Petroleum Naptha	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Methyl acetate	Rabbit	Moderate irritant
Cyclohexane	Rabbit	Mild irritant
Light petroleum distillates	Rabbit	Mild irritant
Petroleum Naptha	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Methyl acetate	Human	Not sensitizing
Light petroleum distillates	Guinea pig	Not sensitizing
Petroleum Naptha	Guinea pig	Not sensitizing

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Dimethyl ether	In Vitro	Not mutagenic
Dimethyl ether	In vivo	Not mutagenic
Methyl acetate	In Vitro	Not mutagenic
Methyl acetate	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In vivo	Some positive data exist, but the data are not sufficient for classification
Light petroleum distillates	In Vitro	Not mutagenic
Petroleum Naptha	In vivo	Not mutagenic
Petroleum Naptha	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Dimethyl ether	Inhalation	Rat	Not carcinogenic
1,1-Difluoroethane	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Light petroleum distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Petroleum Naptha	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Petroleum Naptha	Inhalation	Human and	Some positive data exist, but the data are not sufficient for classification

		animal	
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Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Dimethyl ether	Inhalation	Not toxic to female reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	Not toxic to male reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	Not toxic to development	Rat	NOAEL 40,000 ppm	during organogenesis
Cyclohexane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 6.9 mg/l	2 generation
1,1-Difluoroethane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 25,000 ppm	2 years
1,1-Difluoroethane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 25,000 ppm	2 years
1,1-Difluoroethane	Inhalation	Not toxic to development	Rat	NOAEL 50,000 ppm	during organogenesis
Petroleum Naptha	Inhalation	Not toxic to development	Rat	NOAEL 2.4 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Methyl acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Methyl acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
Methyl acetate	Inhalation	blindness	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Methyl acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
1,1-Difluoroethane	Inhalation	cardiac sensitization	Causes damage to organs	Human and animal	NOAEL Not available	poisoning and/or abuse
1,1-Difluoroethane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL 100,000 ppm	
1,1-Difluoroethane	Inhalation	respiratory irritation	Some positive data exist, but the	Not	NOAEL Not	not available

			data are not sufficient for classification	available	available	
Light petroleum distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Light petroleum distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Petroleum Naptha	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Petroleum Naptha	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Petroleum Naptha	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 6.5 mg/l	4 hours

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 20,000 ppm	30 weeks
Methyl acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
Methyl acetate	Inhalation	endocrine system hematopoietic system liver immune system kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6.1 mg/l	28 days
Cyclohexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	All data are negative	Rat	NOAEL 8.6 mg/l	30 weeks
1,1-Difluoroethane	Inhalation	hematopoietic system kidney and/or bladder respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Petroleum Naptha	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 4.6 mg/l	6 months
Petroleum Naptha	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.9 mg/l	13 weeks
Petroleum Naptha	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 0.6 mg/l	90 days
Petroleum Naptha	Inhalation	bone, teeth, nails, and/or hair blood liver muscles	All data are negative	Rat	NOAEL 5.6 mg/l	12 weeks
Petroleum Naptha	Inhalation	heart	All data are negative	Multiple animal	NOAEL 1.3 mg/l	90 days

3M(TM) Hi-Tack Spray Adhesive 76 01/16/15

				species		
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Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
Light petroleum distillates	Aspiration hazard
Petroleum Naptha	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Cyclohexane	110-82-7	7 - 13

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 1 Special Hazards: None

Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)

Product Identification Numbers

62-4977-2924-4, 62-4977-2928-5, 62-4977-4730-3, 62-4977-4925-9, 62-4977-4929-1, 62-4977-4930-9, 62-4977-4935-8

1.2. Recommended use and restrictions on use

Recommended use

Adhesive aerosol, General Purpose Aerosol adhesive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Aerosol: Category 1.
Serious Eye Damage/Irritation: Category 2A.
Reproductive Toxicity: Category 2.
Simple Asphyxiant.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (central nervous system): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable aerosol.

Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May displace oxygen and cause rapid suffocation.

Causes damage to organs:
cardiovascular system |

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
 o not breathe dust/fume/gas/mist/vapors/spray.
 se only outdoors or in a well-ventilated area.
 ear protective gloves and eye/face protection.
 o not eat, drink or smoke when using this product.
 ash thoroughly after handling.

First Aid Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.
Keep container tightly closed.
Store locked up in a well-ventilated place.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Hazards not otherwise classified

None.

36% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Acetone	67-64-1	20 - 30 Trade Secret *
Non-volatile components (N.J.T.S. Registry No. 04499600-6433P)	Trade Secret*	20 - 30 Trade Secret *
Propane	74-98-6	15 - 25 Trade Secret *
Cyclohexane	110-82-7	10 - 20 Trade Secret *
Petroleum distillates	64742-49-0	10 - 20 Trade Secret *
Hexane	110-54-3	< 0.5

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Aldehydes
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Hexane	110-54-3	ACGIH	TWA:50 ppm	Skin Notation
Hexane	110-54-3	OSHA	TWA:1800 mg/m3(500 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	OSHA	TWA:1050 mg/m3(300 ppm)	
Petroleum distillates	64742-49-0	CMRG	TWA:50 ppm	

Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
Acetone	67-64-1	OSHA	TWA:2400 mg/m3(1000 ppm)	
Propane	74-98-6	ACGIH	Limit value not established:	
Propane	74-98-6	OSHA	TWA:1800 mg/m3(1000 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
 Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
 Gloves made from the following material(s) are recommended: Butyl Rubber
 Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
 Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid aerosol
Specific Physical Form:	Aerosol
Odor, Color, Grade:	Clear, sweet, fruity odor
Odor threshold	No Data Available
pH	No Data Available
Melting point	No Data Available
Boiling Point	Not Applicable
Flash Point	-42.00 °F [Test Method: Tagliabue Closed Cup]

Evaporation rate	1.9 [Ref Std: ETHER=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Density	2.97 [Ref Std: AIR=1]
Density	0.726 g/ml
Specific Gravity	0.726 [Ref Std: WATER=1]
Solubility in Water	Nil
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	Not Applicable
Viscosity	Not Applicable
Hazardous Air Pollutants	<=0.4 % weight [Test Method: Calculated]
VOC Less H2O & Exempt Solvents	<=51 % [Test Method: calculated SCAQMD rule 443.1]
Solids Content	>=22.4 %

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:**Single exposure may cause target organ effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Petroleum distillates	Dermal	Rabbit	LD50 > 3,160 mg/kg

Petroleum distillates	Inhalation-Vapor (4 hours)	Rat	LC50 > 14.7 mg/l
Petroleum distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Non-volatile components (N.J.T.S. Registry No. 04499600-6433P)	Dermal		LD50 estimated to be > 5,000 mg/kg
Non-volatile components (N.J.T.S. Registry No. 04499600-6433P)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hexane	Inhalation-Vapor (4 hours)	Rat	LC50 170 mg/l
Hexane	Ingestion	Rat	LD50 > 28,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Propane	Rabbit	Minimal irritation
Acetone	Mouse	Minimal irritation
Cyclohexane	Rabbit	Mild irritant
Petroleum distillates	Rabbit	Irritant
Non-volatile components (N.J.T.S. Registry No. 04499600-6433P)	Professional judgement	Minimal irritation
Hexane	Human and animal	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Propane	Rabbit	Mild irritant
Acetone	Rabbit	Severe irritant
Cyclohexane	Rabbit	Mild irritant
Petroleum distillates	Rabbit	Mild irritant
Hexane	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Petroleum distillates	Guinea pig	Not sensitizing
Hexane	Human	Not sensitizing

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Propane	In Vitro	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Petroleum distillates	In Vitro	Not mutagenic
Hexane	In Vitro	Not mutagenic
Hexane	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Acetone	Not Specified	Multiple animal species	Not carcinogenic
Petroleum distillates	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Hexane	Dermal	Mouse	Not carcinogenic
Hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Acetone	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5.2 mg/l	during organogenesis
Cyclohexane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 6.9 mg/l	2 generation
Hexane	Ingestion	Not toxic to development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
Hexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 0.7 mg/l	during gestation
Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Propane	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
Propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propane	Inhalation	respiratory irritation	All data are negative	Human	NOAEL Not available	
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	

Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Petroleum distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Petroleum distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Petroleum distillates	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24.6 mg/l	8 hours

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	All data are negative	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are negative	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	All data are negative	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	All data are negative	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	All data are negative	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Cyclohexane	Inhalation	liver	Some positive data exist, but the	Rat	NOAEL 24	90 days

			data are not sufficient for classification		mg/l	
Cyclohexane	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	All data are negative	Rat	NOAEL 8.6 mg/l	30 weeks
Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
Hexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 months
Hexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.76 mg/l	6 months
Hexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 35.2 mg/l	13 weeks
Hexane	Inhalation	auditory system immune system eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	heart skin endocrine system	All data are negative	Rat	NOAEL 1.76 mg/l	6 months
Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Ingestion	endocrine system hematopoietic system liver immune system kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	13 weeks

Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
Petroleum distillates	Aspiration hazard
Hexane	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Cyclohexane	110-82-7	Trade Secret 10 - 20

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 0 Special Hazards: None

Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: *2 Flammability: 4 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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SAFETY DATA SHEET

1. Identification

Product identifier Oatey Purple Primer- NSF Listed for PVC and CPVC

Other means of identification

Product code 1402E

Synonyms Part Numbers: 30755(TV), 30756(TV), 30757(TV), 30758, 30759, 30927

Recommended use Joining PVC Pipes

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards

Acute toxicity, oral Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information
Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Acetone	67-64-1	25-40
Cyclohexanone	108-94-1	25-40
Furan, Tetrahydro-	109-99-9	15-30
Methyl ethyl ketone	78-93-3	15-30

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.

Most important symptoms/effects, acute and delayed Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special information Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

fighting measures

Suitable extinguishing media Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m ³ 50 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m ³ 200 ppm
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m ³ 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL TWA	750 ppm 500 ppm
Cyclohexanone (CAS 108-94-1)	STEL TWA	50 ppm 20 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methyl ethyl ketone (CAS 78-93-3)	TWA	50 ppm
	STEL	300 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm
	TWA	100 mg/m3
Cyclohexanone (CAS 108-94-1)	STEL	25 ppm 735 mg/m3
	TWA	250 ppm 590 mg/m3 200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
	TWA	300 ppm 590 mg/m3 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Translucent liquid.
Color	Purple
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	151 °F (66.11 °C)
Flash point	14.0 - 23.0 °F (-10.0 - -5.0 °C)
Evaporation rate	5.5 - 8
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.8
Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg @ 20 C
Vapor density	2.5
Relative density	0.84 +/- 0.02 @20°C
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	7 lb/gal
VOC (Weight %)	505 g/l SQACMD Method 24

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion May be fatal if swallowed and enters airways. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (Methyl ethyl ketone RQ = 26274 LBS, Acetone RQ = 13130 LBS)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB2, T7, TP1, TP8, TP28
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)
 Class 3
 Subsidiary risk -
Packing group II
Environmental hazards No.
ERG Code 3H
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)
 Class 3
 Subsidiary risk -
Packing group II
Environmental hazards
 Marine pollutant No.
EmS F-E, S-E
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
 All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV

Methyl ethyl ketone (CAS 78-93-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	27-May-2015
Revision date	-
Version #	01
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0

NFPA ratings



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.



MATERIAL SAFETY DATA SHEET

MSDS Number: 1400C

Section 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: OATEY CANADIAN CLEAR CLEANER
Product Nos.: 30766, 31493, 31494, 31495, 31496, 31520, 31521, 31522, 31523
Product Use: Cleaner for cementing plastic pipe
Formula: See Section 3
Synonyms: Cleaner
Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135
Firm Phone No: (216) 267-7100
Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.
Prepared by: Technical Department
Preparation Date: 09/11/2012

Section 2 HAZARDS IDENTIFICATION

Emergency Overview:
Clear liquid with a sharp, penetrating odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Table with 6 columns: INGREDIENTS, %wt/wt, CAS NUMBER, ACGIH TLV TWA, OSHA PEL TWA, OTHER. Rows include Methyl Ethyl Ketone and Acetone.

OSHA Hazard Classification: Flammable, irritant, organ effects

Section 4 FIRST AID MEASURES

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.
Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

Section 5 FIRE FIGHTING MEASURES
Flashpoint / Method: 14 - 23 Degrees F. (-10 to -5 Degrees C) / CCCFP
Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume
Extinguishing Media: Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed containers with water. Water may be ineffective as an extinguishing agent.
Special Fire Fighting Procedure: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored
Unusual Fire And Explosion Hazards: Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back.
Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

Section 6 ACCIDENTAL RELEASE MEASURES
Spill or Leak Procedures: Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

Section 7 HANDLING AND STORAGE
Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.
Other: "Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION
Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.
Hand Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.
Eye Protection: Safety glasses with side shields or safety goggles.

Section 9 PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point: 133 Degrees F / 56 Degrees C
Melting Point: Not applicable
Vapor Pressure: 145 mmHg @ 20 Degrees C
Vapor Density: (Air = 1) 2.5
Volatile Components: 100%

Solubility In Water:	Negligible
pH:	Not applicable
Specific Gravity:	0.81 +/- 0.02 @ 20 Degrees C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0
Appearance:	Clear Liquid
Odor:	Sharp, penetrating odor
Will Dissolve In:	Methyl Ethyl Ketone
Material Is:	Liquid

Section 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

Incompatibility/ Materials To Avoid: Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

Hazardous Polymerization: Will not occur.

Section 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone may be absorbed through the skin causing effects similar to those listed under inhalation.

Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

Chronic Toxicity: Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.

Toxicity Data:

Acetone:	Oral rat LD50: 5,800 mg/kg
	Inhalation rat LC50: 50,100 mg/m3/8 hours
Methyl Ethyl Ketone:	Oral rat LD50: 2,737 mg/kg
	Inhalation rat LC50: 23,500 mg/m3/8 hours
	Skin rabbit LD50: 6,480 mg/kg

Sensitization: None of the components are known to cause sensitization.

Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.

Mutagenicity: Acetone, methyl ethyl ketone are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone has been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

Section 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.
VOC Level: Maximum 550 g/L per SCAQMD Test Method 316A.

Section 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.
RCRA Hazardous Waste Number: U002, U159,
EPA Hazardous Waste ID Number: D001, D035, F003, F0005
EPA Hazard Waste Number: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

Section 14 TRANSPORT INFORMATION

DOT	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
UN/NA Number:	None	UN1993
Proper Shipping Name:	Consumer Commodity	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	ORM-D	3
Packing Group:	None	PGII
Hazard Labels:	None	Flammable Liquid
IMDG		
UN Number:	UN1993	UN1993
Proper Shipping Name:	Flammable Liquid, NOS (Limited Quantity)	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	3	3
Packing Group:	II	II
Label:	None (Limited Quantities are expected from labeling)	Class 3 (Flammable Liquid)
Flashpoint (deg C)	-10 to -5 Degrees C	-10 to -5 Degrees C

2008 North American Emergency Response Guidebook Number: 127

Section 15 REGULATORY INFORMATION

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302 Extremely Hazardous Substances (TPQ): This product does not contain chemicals regulated under SARA Section 302.

Section 313 Toxic Chemicals: This product does not contain chemicals subject to SARA Title III Section 313 Reporting requirements.

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Methyl Ethyl Ketone (70% maximum) of 5,000 lbs, is 7,143 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product does not contain any chemicals subject to California Proposition 65 regulations.

TSCA Inventory Classification: All of the components of this product are listed on the TSCA inventory. Class B, Division 2; Class D, Division 2, Subdivision B; Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16

OTHER INFORMATION

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

Template: tml-cn-e3

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MATERIAL SAFETY DATA SHEET

Supplied By: *Site First Building Products*
7095 Americana Parkway
Reynoldsburg, Ohio 43068
1-800-775-4714
Trade Name: *Roof Kit Seam Primer*

BONDLINE ADHESIVES, INC. MATERIAL SAFETY DATA SHEET
500 N. WOODS AVENUE PAGE 1
EVANSVILLE, IN 47712 812-423-4651 PRODUCT: S4060C ROOFKIT SEAM PRIMER (JHB910 VERSION)
FAX 812-422-2662

1. CHEMICAL PRODUCT & MANUFACTURER

PRODUCT NAME: S4060CT TAPE PRIMER
CHEMICAL FAMILY: HYDROCARBON

FOR CHEMICAL EMERGENCY: CALL CHEMTREC AT 800-424-9300 24 HRS.

MANUFACTURER/DISTRIBUTOR: TELEPHONE:
SAME AS ABOVE SAME AS ABOVE
24 HOUR EMERGENCY: PERS 800-633-8253

2. COMPOSITION & PRODUCT INFORMATION ON HAZARDOUS INGREDIENTS ACGIH

	WT%	CAS#	TLV-8 HR/TWA
TOLUENE(SECTION 313 REPORTABLE)	90.79	108-88-3	100 PPM
HEXANE(SECTION 313 REPORTABLE)	3.95	110-54-003	50 PPM
DIPHENYLMETHANE DIISOCYANATE	0.225	026447-40-5	
POLYMETHYLENE POLYPHENOL ISOCYANATE	0.225	009016-87-9	

3. HAZARDS IDENTIFICATION

HMS CODE: HEALTH 4 FLAMMABILITY 3 REACTIVITY 0
NFPA CODE: HEALTH 3 FLAMMABILITY 3 REACTIVITY 0

POTENTIAL HEALTH EFFECTS

EYE CONTACT: MAY BURN AND IRRITATE EYES AND MUCUS MEMBRANES.

SKIN CONTACT: MAY CAUSE DERMATITIS AND DEFATTING OF THE SKIN. PROLONGED CONTACT WITH ISOCYANATE CAN CAUSE REDDENING, SWELLING, RASH, SCALING OR BLISTERING.

SKIN ABSORPTION: DERMATITIS AND DEFATTING OF THE SKIN. SKIN ABSORPTION IS UNLIKELY DUE TO THE VOLATILITY OF THE PRODUCT IF USED AS ADVISED. ISOCYANATE CAN BE A DERMAL SENSITIZER.

INGESTION: HARMFUL OR FATAL IF SWALLOWED.

INHALATION: MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. INEBRIATION, FOLLOWED BY HEADACHE AND NAUSEA. IN SEVERE CASES DIZZINESS, CONVULSIONS AND UNCONSCIOUSNESS. ANOREXIA AND NERVOUSNESS MAY PERSIST FOR SEVERAL MONTHS FOLLOWING ACUTE OVEREXPOSURE.

CARCINOGEN: NO

TARGET ORGANS: KIDNEY, LIVER

4. FIRST AID MEASURES

INHALATION: REMOVE TO FRESH AIR IF OVERCOME. IF BREATHING HAS STOPPED BEGIN CPR. CALL A PHYSICIAN AT ONCE. CONTAINS ISOCYANATE WHICH IS A PLUMONARY SENSITIZER.

EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES.

PAGE: 2
PRODUCT: S4060C

SKIN CONTACT WASH WITH HAND CLEANER; FOLLOW WITH SOAP AND WATER.

INGESTION: DO NOT INDUCE VOMITING. CALL PHYSICIAN AT ONCE.

NOTE TO PHYSICIAN: CONTAINS PETROLEUM DISTILLATES. CONTAINS ISOCYANATE WHICH MAY CAUSE PULMONARY SENSITIZATION IN SOME INDIVIDUALS AT LEVELS LOWER THAN THE PEL. SENSITIZED INDIVIDUALS SHOULD AVOID EXPOSURE TO ANY ISOCYANATE.

PRIMARY ROUTES OF ENTRY: INHALATION, SKIN

5. FIRE FIGHTING MEASURES FLASHPOINT, TAG CLOSED CUP: -25 F

GENERAL HAZARD: EXTREMELY FLAMMABLE. MAY FORM COMBUSTIBLE OR EXPLOSIVE MIXTURES WITH AIR. CLOSED CONTAINERS MAY EXPLODE IF EXPOSED TO EXTREME HEAT. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL CONSIDERABLE DISTANCES TO IGNITION SOURCES AND FLASH BACK.

FIRE FIGHTING INSTRUCTIONS: WATER SPRAY MAY BE INEFFECTIVE BUT MAY BE USED TO COOL CLOSED CONTAINERS. IF WATER IS USED, USE FOG NOZZLES.

FIRE FIGHTING EQUIPMENT: NFPA CLASS B EXTINGUISHERS (CO₂, FOAM, DRY CHEMICAL) AND SELF CONTAINED BREATHING APPARATUS

COMBUSTION PRODUCTS: SMOKE, NORMAL COMBUSTION PRODUCTS.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: REMOVE ALL SOURCES OF IGNITION, VENTILATE AREA AND REMOVE MATERIAL WITH ABSORBENTS AND/OR NON-SPARKING TOOLS. IF SPILL IN EXCESS OF EPA REPORTABLE QUANTITY ENTERS THE ENVIRONMENT CALL NATIONAL RESPONSE CENTER 800-424-8802 IMMEDIATELY.

WATER SPILL: USE ABSORBENT BOOMS TO DIKE AREA AND MINIMIZE AREA OF CONTAMINATION

7. STORAGE AND HANDLING:

STORAGE TEMPERATURE: AMBIENT
STORAGE PRESSURE: ATMOSPHERIC

GENERAL: KEEP MATERIAL AWAY FROM HEAT, SPARK AND OPEN FLAME. DO NOT STORE IN OPEN OR UNLABELED CONTAINERS. USE WITH ADEQUATE VENTILATION. DO NOT STORE ABOVE 120F. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS. DO NOT CUT, BRAZE OR WELD. FOR INDUSTRIAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN. READ PRODUCT LABEL AND OBSERVE ALL PRECAUTIONS BEFORE USE. ISOCYANATE REACTS WITH WATER TO FORM CARBON DIOXIDE GAS WHICH MAY RUPTURE SEALED CONTAINERS.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: LOCAL EXHAUST: PREFERABLE
MECHANICAL EXHAUST: ACCEPTABLE-USE ONLY
CLASS I GROUP D APPROVED DEVICES.

PERSONAL PROTECTION: OSHA PEL: 50 PPM
RESPIRATORY PROTECTION: VENTILATE TO KEEP VAPORS BELOW TLV.
USE NIOSH APPROVED RESPIRATOR FOR AREAS OF CONCENTRATED VAPOR
EYES: SPLASH GOGGLES FOR LIQUID PRODUCTS
GLOVES: MUST BE IMPERVIOUS TO SOLVENTS

9. PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY: .865
DENSITY:(IN LBS): 7.22
VAPOR DENSITY: 3.0
EVAPORATION RATE (nBuAc=1): 8.1
SOLUBILITY IN WATER: NEGLIGIBLE, BUT WATER WILL LIBERATE CO₂ ; BUILD PRESSURE
BOILING RANGE (F): 150/232
PHYSICAL STATE: LIQUID
% VOLATILE BY VOLUME: 95.5
EXPLOSIVE/FLAMMABLE LIMITS: (LEL): 1 (UEL): 8
FLASHPOINT : TAG CLOSED CUP: -25 F
VAPOR PRESSURE AT 20C (MM OF HG): 140

VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT: 819.8 g/liter

APPEARANCE AND ODOR: CLEAR SYRUP WITH MILD SOLVENT ODOR.

10. STABILITY AND REACTIVITY

GENERAL: THIS PRODUCT IS STABLE AND HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: AVOID STRONG OXIDIZING AGENTS. AVOID ALL SOURCES OF IGNITION. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO AN IGNITION SOURCE AND FLASHBACK.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

11. TOXICOLOGICAL INFORMATION

NOT IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA

12. ECOLOGICAL INFORMATION

NONE KNOWN

13. DISPOSAL CONSIDERATIONS

THIS MATERIAL IS CONSIDERED A HAZARDOUS WASTE FOR DISPOSAL PURPOSES. SEE 40CFR PART 261.7 FOR FURTHER INFORMATION CONCERNING THE DISPOSITION OF EMPTY CONTAINERS. HAZARDOUS WASTES MAY NOT BE LANDFILLED! REFER TO 40CFR PART 261 SUBPART C FOR DEFINITIONS OF HAZARDOUS WASTE.

14. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: ADHESIVE
DOT HAZARD CLASS: 3
UN ID NUMBER: UN1133
APPLICABLE PACKING GROUP NUMBER: II

15. REGULATORY INFORMATION

OSHA STATUS: HAZARDOUS

CERCLA REPORTABLE QUANTITY: NONE

SARA TITLE III:

SECTION 302: EXTREMELY HAZARDOUS SUBSTANCES: NONE

SECTION 311/312: 311-YES 312-YES

SECTION 313: YES

RCRA STATUS: IF DISCARDED IN ITS PURCHASED FORM, THIS PRODUCT IS A RCRA HAZARDOUS WASTE. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR RESIDUE OF THE PRODUCT REMAINS CLASSIFIED A HAZARDOUS WASTE AS PER 40 CFR 261, SUBPART C. STATE OR LOCAL REGULATIONS MAY ALSO APPLY IF THEY DIFFER FROM THE FEDERAL REGULATION.

16. OTHER INFORMATION:

APPROVAL DATE: 09-29-06 (Issued for Canada 05-15-12)

MSDS FORMAT: S4060C MIXED HEXANE ANSI MSDS

THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. INFORMATION IS BASED UPON SUPPLIER-ISSUED MATERIAL SAFETY SHEETS AND MAY BE SUBJECT TO ERROR. IF APPRISED OF CHANGES, UPDATED MSDS WILL BE PROMPTLY ISSUED. USERS MUST MAKE DETERMINATION REGARDING THE SUITABILITY OF THE PRODUCT FOR THEIR OWN PURPOSES PRIOR TO USE.

READ PRODUCT LABEL CAREFULLY BEFORE USE AND FOLLOW ALL PRECAUTIONS.



SAFETY DATA SHEET

Revision Date 09-Sep-2015

Version 2

1. IDENTIFICATION

Product identifier

Product Name FAST ORANGE PUMICE CREAM HAND CLEANER 4.5 LB

Other means of identification

Product Code 35406
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Hand Cleaner or Soap - Heavy Duty
Uses advised against No information available

Details of the supplier of the safety data sheet

<u>Manufacturer Address</u>	<u>Distributor</u>
ITW Permatex 10 Columbus Blvd. Hartford, CT 06106 USA	ITW Permatex Canada 35 Brownridge Road, Unit 1 Halton Hills, ON Canada L7G 0C6 Telephone: (800) 924-6994

Company Phone Number 1-87-Permatex
(877) 376-2839
24 Hour Emergency Phone Number Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label elements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance White

Physical state Cream

Odor Citrus

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

Unknown acute toxicity

15.6009 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

substance(s)

Chemical Name	CAS No	Weight-%	Trade Secret
WATER	7732-18-5	60 - 100	*
PUMICE	1332-09-8	5 - 10	*
ETHOXYLATED C11-C16 ALCOHOL	127036-24-2	1 - 5	*
CASTOR OIL	8001-79-4	1 - 5	*
D-LIMONENE	5989-27-5	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact

None under normal use conditions.

Inhalation

None under normal use conditions.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Advice to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep from freezing.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Eyewash stations

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary.

Respiratory protection	None under normal use conditions.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Cream
Appearance	White
Odor	Citrus
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.0-8.5	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	> 95 °C / > 203 °F	
Evaporation rate	<1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	>1	Air = 1
Relative density	1.05	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	<1%
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Keep from freezing.

Incompatible materials

Strong oxidizing agents

Hazardous Decomposition Products

Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation None known.

Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion May cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
WATER 7732-18-5	> 90 mL/kg (Rat)	-	-
D-LIMONENE 5989-27-5	= 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
D-LIMONENE 5989-27-5	-	Group 2A	-	X

*IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present*

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 266014 mg/kg
ATEmix (dermal) 294753 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

15.6042 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
D-LIMONENE 5989-27-5	-	35: 96 h Oncorhynchus mykiss mg/L LC50 0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
D-LIMONENE 5989-27-5	Toxic

14. TRANSPORT INFORMATION

DOT

Proper shipping name: Not regulated

IATA

Proper shipping name: Not regulated

IMDG

Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed.
ENCS	Not Listed.
IECSC	Complies
KECL	Not Listed.
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
PROPYLENE GLYCOL 57-55-6	X	-	X
LANOLIN 8006-54-0	-	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

Non-controlled

NFPA	Health hazards 1	Flammability 1	Instability 0	-
HMIS	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 09-Sep-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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Cleaner/Degreaser (640-3322)

Faxback Doc. # 2975

TECH SPRAY, INC.
P O BOX 949
88 NORTH HUGHES
AMARILLO TX 79105
(806) 372-8523

MATERIAL SAFETY DATA SHEET
RS 64-3322

Radio Shack Cleaner/Degreaser

Hazardous Description: (For Shipping Purposes Only)
Compressed Gas N.O.S. Non-Flammable Gas UN1956

Hazard Rating Health: 2 Fire: 2 Reactivity: 1
0-Least 1-Slight 2-Moderate 3-High 4-Extreme

* * * * * I--HAZARDOUS COMPONENTS * * * * *

Ingredients	CAS No.	%	Hazard
Dichlorofluoroethane	1717-00-6	52	See Section IX.
Ethanol (Ethyl Alcohol)	64-17-5	27	OSHA PEL 1000ppm ACGIH TLV 1000ppm
PROPELLANT			
Chlorodifluoromethane	75-45-6	20	OSHA PEL 1000ppm ACGIH TLV 1000ppm
Carbon Dioxide	124-38-9	1	OSHA TLV 10,000ppm

* * * * * II--PHYSICAL DATA * * * * *

Boiling Point 35 degrees C/ F pH NA
Density 1.04 % Volatile 100
Solubility in Water NE % Solids 0
Vapor Density (Air=1) .. 4.0 Evaporation Rate (H2O=1) .. >1
Appearance: Clear water--white mobile liquid with slight ethereal odor.

* * * * * III--FIRE AND EXPLOSION HAZARD DATA * * * * *

Flash Point: None to Boiling. See IX. Explosion Limits
LEL: NE UEL: NE
Extinguishing Media: Water, foam, dry chemical, carbon dioxide.
Special Firefighting Procedures:
Firefighters should wear self-contained, positive-pressure breathing apparatus and avoid contact with fumes which could contain hydrochloric and hydrofluoric acid.
Unusual Fire and Explosion Hazards:
Aerosol cans may erupt with force at temperatures above 120 degrees F.

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MATERIAL SAFETY DATA SHEET
RS 64-3322

***** IV--HEALTH HAZARD DATA *****

Effects of Overexposure

INHALATION: Major route of exposure. Vapor is heavier than air and can cause suffocation by reducing the available oxygen for breathing. Breathing high concentrations of vapor could cause light-headedness, giddiness, shortness of breath, and/or confusion, and may lead to narcosis, cardiac irregularities, unconsciousness or even death.

EYES: Liquid contact will irritate eyes and may cause conjunctivitis.

SKIN: Not a corrosive or irritant; however, repeated or prolonged exposure can cause defatting of skin.

INGESTION: Single-dose toxicity is low to moderate. If vomiting does occur, the liquid can be aspirated into lungs, which can cause chemical pneumonia and systemic effects. Human psychotropic, gastrointestinal, and central nervous system effects are possible.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If breathing has stopped, administer artificial respiration. Seek medical attention.

EYES: Flush eyes with water 15 minutes. Lift eyelids occasionally until no evidence of chemical is present. Call physician.

SKIN: Wash promptly with soap and water for 15 minutes while removing contaminated clothing. Get medical attention immediately. Wash clothing before reuse.

INGESTION: If conscious, give 2 to 4 glasses of water and induce vomiting, or remove chemical by gastric lavage. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

NOTE: Do not treat victim with adrenalin. Overexposure, especially if accompanied by anoxia, may cause cardiac irritability and cause respiratory distress. Maintain oxygenation until recovery.

COMMENTS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes called painters' syndrome). Intentional misuse by concentrating and inhaling this product may be harmful or fatal.

***** V--REACTIVITY DATA *****

Stability: STABLE Conditions to Avoid: Contact with open flame, heat.

Incompatibility (materials to avoid):

reactive alkali metals, strong acids & bases.

hazardous Decomposition Products:

hydrogen chloride, phosgene, chlorine, carbon dioxide, and carbon monoxide.

hazardous Polymerization: WILL NOT OCCUR

Conditions to Avoid: None

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MATERIAL SAFETY DATA SHEET
RS 64-3322

***** VI--SPILL OR LEAK PROCEDURES *****

Evacuate area. Ventilate area well and avoid breathing vapors. Vapor concentration will be highest along floor and in low lying areas. Pick up liquid on a suitable absorbant and store in sealed containers. Shut off fire sources. Workers should wear proper equipment when working in a clean up area.

***** VII--WASTE DISPOSAL METHODS *****

Material may be disposed of by a licensed reclaimer or incineration facility. Consult local, state, and federal disposal authorities for approved procedures.

***** VIII--EMPLOYEE PROTECTION *****

Respiratory Protection:

Use NIOSH-approved organic vapor mask when vapor levels exceed TLV.

Ventilation: Do not use in closed space. Ventilation required.

Hands: Solvent-resistant gloves such as Neoprene or PVA.

Eyes: Wear splash-proof safety goggles or glasses.

Special Precautions:

This product is intended for industrial use only.

***** IX--OTHER INFORMATION *****

Note: Toxicity tests have not been completed on chlorodifluoroethane (141b). Thus, no TLV can be assigned for this product at this time. A working TLV of 350ppm can be used until testing is completed.

Flash Point Data: The material exhibited a flash point at 35 degrees C after approximately 10% of material had evaporated.

Prepared By: J. Witcher Date: 4-24-91
NL=Not Listed NIF=No Information Found NE=Not Established
NA=Not Applicable

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SAFETY DATA SHEET

Purple Power Prime-Shine Car Wash with Carnauba Wax

Section 1: Product and Company Identification:

Product Name: Purple Power Prime-Shine Car Wash with Carnauba Wax
Product Use: Car Wash with Wax
Part's: 9210P, 9215P, 9264P, 9220P, 9225P, 9240
Manufacture/Supplier: Aiken Chemical Company, Inc.
P.O. Box 27147, Greenville, SC 29616
12 Shelter Drive, Greer, SC 29650
Phone Number: (864) 968-1250
1-800-828-1860
Emergency Phone: 1-800-424-9300
Date of Preparation: May 29, 2015

Section 2: Hazards Identification:

Hazard Determination System (HDS): Health, Flammability, Reactivity



Emergency Overview:
Warning: May cause skin irritation, defatting, dermatitis and possible stinging or itching.
Potential Health Effects: See Section 11 for more information.
Likely Routes of Exposure: Eye contact, skin contact, ingestion.
Eye: May cause watering, redness, stinging and irritation; which may result in impairment of vision.
Skin: Prolonged or repeated contact can cause irritation, defatting, dermatitis and possible stinging or itching.
Ingestion: Accidental ingestion may cause gastrointestinal irritation, nausea, and vomiting.
Inhalation: Inhalation of mists may cause upper respiratory tract irritation.
Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.
Signs and symptoms: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, edema, drying, de-fatting and cracking of the skin.
Target Organs: Skin, eyes, gastrointestinal tract.
Potential Environmental Effects: See Section 12 from more information.

Section 3: Composition / Information on Ingredients:

Ingredient	CAS#	Percent
Dodecylbenzene Sulfonic Acid (Alternative CAS# 27176-87-01)	68584-22-5	1-5

Section 4: First Aid Measures:

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. If irritation persists, seek medical attention.
Skin Contact: Thoroughly wash all exposed areas with soap and water for at least 15 minutes. Remove any contaminated clothing & wash before reusing. If itching and redness persist, seek medical attention.
Inhalation: Inhalation of mists may cause upper respiratory tract irritation.
Ingestion: If accidentally swallowed, DO NOT induce vomiting. Give large amounts of water or milk. Seek medical attention immediately.
General Advice: In case of accident or if you feel unwell, seek medical advice immediately. Show the label or SDS where possible.
Note to Physicians: Symptoms may not appear immediately.

SAFETY DATA SHEET

Purple Power Prime-Shine Car Wash with Carnauba Wax

Section 5: Fire Fighting Measures:

Flammability: Not Flammable by WHMIS/OSHA Criteria.

Means of Extinguishing:

Suitable extinguishing media: Use water fog, alcohol foam, carbon dioxide or dry chemical.
Note: Water fog or foam may cause frothing of the product.

Unsuitable Extinguishing Media: Not Available.

Products of Combustion: Not Available.

Explosion Data:

Sensitivity to Mechanical Impact: Not Available.

Sensitivity to Static Discharge: Not Available.

Protection of Firefighters: Keep Upwind of fire. Wear full fire-fighting turn-out gear, (full Bunker gear), and respiratory protection (SCBA)

Section 6: Accidental Release Measures:

Personal Precautions: Use personal protection recommended in section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions: Not Available.

Methods for Containment: Contain and/or absorb spill with inert material, (e.g. sand, vermiculite), then place in a suitable container. Use appropriate Personal Protective Equipment, (PPE).

Methods for Clean-up: Scoop up material and place in a disposal container. Provide ventilation.

Other Information: Not Available.

Section 7: Handling and Storage:

Handling: Do not get in eyes, on skin or clothing. Do not swallow. Wash thoroughly after handling.

Storage: Do not allow to freeze.

Section 8: Exposure Controls/Personal Protections:

Exposure Guidelines:

Ingredient

Exposure Limits

	OSHA-PEL	ACGIH-TLV	Percent
Dodecylbenzene Sulfonic Acid:	1mg/m ³	0.2 mg/m ³	< 5%
Sodium Hydroxide:	2 mg/m ³	2 mg/m ³	< 1%

Engineering Controls: Use ventilation adequate to keep exposures, (airborne levels of dust, fume, vapor, etc.), below recommended exposure limits.

Personal Protective Equipment:

Eye/Face Protection: Splash goggles or safety glasses.

Hand Protection: Wear Rubber gloves.

Skin and Body Protection: None normally needed.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: Physical and Chemical Properties:

Appearance and Odor: Clear red liquid with cherry odor

Physical State: Liquid

pH: 9 - 10

Freezing Point: ~0°C (~32°F)

Boiling Point: ~100°C (~212°F)

Flash Point (Method Used): >212°F (PMCC)

Evaporation Rate (Butyl Acetate= 1) : <1.0

Volatility: Not Determined

Pressure (mm Hg.): Not Determined

SAFETY DATA SHEET

Purple Power Prime-Shine Car Wash with Carnauba Wax

Vapor Density (AIR=1):	Not Determined
Specific Gravity:	1.021
Solubility in Water:	Complete
Melting Point:	~100°C (~212°F)
Auto-Ignition Temperature:	Not Determined
Percent Volatile, wt%:	0

Section 10: Stability and Reactivity:

Stability:	Stable under normal storage conditions
Conditions to Avoid:	Mixing or blending with strong oxidizing agents
Incompatibility (Materials to Avoid):	Strong Oxidizing agents
Hazardous Decomposition or Byproducts:	Carbon monoxide, carbon dioxide, nitrogen and sulfur oxides and various hydrocarbons
Hazardous Polymenzation:	Will Not Occur

Section 11: Toxicology Information:

Dodecylbenzene Sulfonic Acid:

Acute Hazards:

Inhalation:	Inhalation of mists may cause upper respiratory tract irritation
Skin Contact:	May cause moderate irritation
Eye Contact:	Direct contact may cause eye irritation with redness and tearing
Ingestion:	Swallowing may cause gastrointestinal disturbances
Chronic Hazards:	None currently known

Medical Conditions

Aggravated By Exposure:

May aggravate an existing dermatitis

Carcinogen:

None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Benzene Sulfonic acid, C10-16-alkyl derivs: LD50 Oral Rat: 1350 mg/kg

Section 12: Ecological Information:

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Bioaccumulation/Accumulation:	Not Available
Mobility in Environment:	Not Available

Section 13: Disposal Considerations:

Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: Transportation Information:

Proper Shipping Name:	Not D.O.T. Regulated
Hazard Class:	N/A
ID Number:	N/A
Packing Group	N/A
IATA:	N/A

Section 15: Regulatory Information:

Chemical Inventories:

TSCA: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

SARA Section 311: Acute Health

SAFETY DATA SHEET

Purple Power Prime-Shine Car Wash with Carnauba Wax

Section 313: Toxic Release Inventory Chemical: None Listed

California Safe Drinking Water Enforcement Act (Prop 65): This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm at levels which would require a warning under the statute.

Pennsylvania (Worker and Community Right-to-Know Act):

Pennsylvania Special Hazardous Substances List: This product contains the following components that appear on the PA list:

Component	CAS#	Amount
Dodecylbenzene Sulfonic Acid	68584-22-5	< 5%

New Jersey Right-to-Know Hazardous Substance List: This product contains the following components that appear on the NJ list:

Component	CAS#	Amount
Dodecylbenzene Sulfonic Acid	68584-22-5	< 5%
Sodium Hydroxide	1310-73-2	< 1%

Massachusetts Substance List: This product contains the following components that appear on the MA list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	< 1%

Section 16: Other Information:

NFPA	Health Hazard	Flammability	Instability
	1	0	0
HMIS	Health Hazard	Flammability	Physical Hazard
	1	0	0

Prepared By: Aiken Chemical Company, Inc
12 Shelter Drive
Greer, SC 29650

Preparation/Revision Date: May 29, 2015

Revision Date:

Revision Note

General Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

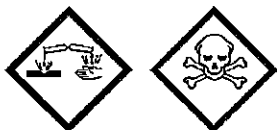
SAFETY DATA SHEET
Klean-Strip Muriatic Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Klean-Strip Muriatic Acid
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Phone Number: (901)775-0100
Web site address: www.wmbarr.com
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892
Intended Use: Cleaning and Surface Preparation
Synonyms: GMA58
Additional Information This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

2. HAZARDS IDENTIFICATION

Corrosive To Metals, Category 1
Acute Toxicity: Inhalation, Category 3
Skin Corrosion/Irritation, Category 1A-1C
Serious Eye Damage/Eye Irritation, Category 1
Specific Target Organ Toxicity (single exposure), Category 3



GHS Signal Word: Danger
GHS Hazard Phrases: H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H331: Toxic if inhaled.
H335: May cause respiratory irritation.
GHS Precaution Phrases: P234: Keep only in original container.
P260: Do not breathe fume/gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
GHS Response Phrases: P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P321: Specific treatment see label.
P363: Wash contaminated clothing before reuse.
P390: Absorb spillage to prevent material damage.
GHS Storage and Disposal P403+233: Store container tightly closed in well-ventilated place.

SAFETY DATA SHEET

Klean-Strip Muriatic Acid

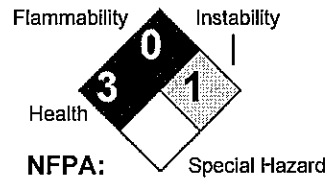
Preparations:

P405: Store locked up.

P501: Dispose of contents/container according to local, state and federal regulations.

Rating System:

HEALTH	*	3
FLAMMABILITY		0
PHYSICAL		0
PPE		H



HMIS:

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

Potential Health Effects
(Acute and Chronic):

Inhalation Acute Exposure Effects:

Inhalation of muriatic acid vapors can cause irritation of respiratory tract, burns, pulmonary edema, and coughing.

Inhalation long term exposure:

Long term exposure to muriatic acid can cause erosion of the teeth.

Skin Contact Acute Exposure Effects:

May cause severe burns, irritation, pain, and ulceration.

Skin contact long term exposure:

May cause dermatitis.

Eye Contact Acute Exposure Effects:

May cause severe burns, eye damage, and blindness.

Eye contact long term exposure:

No effects are known.

Ingestion Acute Exposure Effects:

Poison. May be fatal if swallowed. May cause severe irritation, perforation of the intestinal tract, and burns in mouth, pharynx, and gastrointestinal tract. May cause intense pain, nausea, vomiting, bleeding, circulating collapse, and shock.

Medical Conditions Generally Respiratory system (including asthma and other breathing disorders)

Aggravated By Exposure:

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
7647-01-0	Hydrochloric acid {Hydrogen chloride}	31.0 -35.0 %	MW4025000

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

Page: 3
Printed: 04/16/2015
Revision: 04/16/2015
Supersedes Revision: 03/27/2015

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Inhalation:
If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered. Obtain medical attention immediately.

Skin Contact:
Wash with soap and large quantities of water and remove contaminated clothing, jewelry, and shoes immediately. Wash for 15 minutes. If irritation persists, seek medical attention.

Eye Contact:
Immediately begin to flush with large quantities of water, remove any contact lens. Continue to flush with water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all of the eye and lid tissues. Flushing the eyes with water within several seconds is essential to achieve maximum effectiveness. Seek immediate medical attention.

Ingestion:
Do not induce vomiting. Give milk of magnesia or large amounts of water. Never give anything by mouth to an unconscious person. Call your poison control center, hospital emergency room or physician immediately for instructions. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.

Signs and Symptoms Of Exposure:

See potential health effects.

Note to Physician:

Call your local poison control center for further information.

The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

Fire Fighting Instructions: Keep unnecessary people away, isolate hazard area and deny entry. Wear NIOSH approved positive -pressure self-contained breathing apparatus. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame. Move containers from fire if it can be done without risk.

Flammable Properties and Hazards: Non-flammable

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Small Spills:

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment. Take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. Material may be neutralized with baking soda, soda ash, or dilute caustic soda. Stay upwind, out of low areas, and ventilate closed spaces before entering.

Large Spills:

Evacuation of surrounding area may be necessary for large spills. Wear appropriate personal protective equipment. Completely contain spilled material with dikes, sandbags, etc. Shut off ventilation system if needed. Reprocess or reuse if possible. Neutralize with soda ash or dilute caustic soda. Collect with appropriate absorbent and place into suitable container. Keep out of sewers and water supplies. This material is acidic and may lower the pH of the surface waters with low buffering capacity.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

When mixing, slowly add acid to water to minimize heat generation and spattering. Never add water to acid.

Keep container tightly closed when not in use. Keep container properly labeled.

Precautions To Be Taken in Storing:

Keep container tightly closed when not in use. Store in a cool, dry place away from direct sunlight and heat to avoid container deterioration. Avoid storage at extreme high or low temperatures. Protect from freezing. Keep container properly labeled. Keep separated from incompatible substances.

Store in acid-resistant plastic, glass containers, or rubber-lined steel containers. Do not store in aluminum containers or use aluminum fittings or transfer lines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7647-01-0	Hydrochloric acid {Hydrogen chloride}	CEIL: 5 ppm	CEIL: 2 ppm)	No data.

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

Page: 5

Printed: 04/16/2015

Revision: 04/16/2015

Supersedes Revision: 03/27/2015

**Respiratory Equipment
(Specify Type):**

Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator with acid gas cartridges is required. When an air-purifying respirator is not adequate or for spills and/or emergencies of unknown concentrations, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV.

For occasional consumer use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator. A dust mask does not provide protection against vapors.

Eye Protection:

Safety glasses with side shields. Wearing chemical goggles with a face shield is recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn.

Provide an emergency eyewash station or quick drench shower in the immediate work area.

Protective Gloves:

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with products.

Other Protective Clothing:

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists.

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

**Engineering Controls
(Ventilation etc.):**

Use closed system when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure compliance with applicable exposure limits.

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, burning sensations, or eye-watering -- Stop -- ventilation is inadequate. Leave area immediately.

**Work/Hygienic/Maintenance
Practices:**

A source of clean water should be available in the work area for flushing of eyes and skin.

Wash hands thoroughly after use and before eating, drinking, or smoking. Do not eat, drink, or smoke in the work area. Discard any clothing or other protective equipment that cannot be decontaminated.

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

Page: 6

Printed: 04/16/2015

Revision: 04/16/2015

Supersedes Revision: 03/27/2015

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: Gas Liquid Solid
Appearance and Odor: No data available.
Melting Point: No data.
Boiling Point: 123.00 F
Autoignition Pt: No data.
Flash Pt: No data.
Explosive Limits: LEL: No data. UEL: No data.
Specific Gravity (Water = 1): No data.
Bulk density: 9.660 LB/GA
Vapor Pressure (vs. Air or mm Hg): No data.
Vapor Density (vs. Air = 1): No data.
Evaporation Rate: No data.
Solubility in Water: No data.
Percent Volatile: 99.999 % by weight.

10. STABILITY AND REACTIVITY

Stability: Unstable Stable
Conditions To Avoid - Instability: No data available.
Incompatibility - Materials To Avoid: Incompatible with strong oxidizing agents, strong caustics, alkalis and alkali metals, mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium and rubidium, phosphides of calcium and uranium, lithium silicide, cyanides (which may produce lethal concentrations of hydrocyanic acid), and common and active metals (which produce flammable hydrogen gas).
Hazardous Decomposition Or Byproducts: Thermal decomposition may produce hydrogen chloride vapors.
Possibility of Hazardous Reactions: Will occur Will not occur
Conditions To Avoid - Hazardous Reactions: No data available.

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

Page: 7
Printed: 04/16/2015
Revision: 04/16/2015
Supersedes Revision: 03/27/2015

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Refer to section 2 for acute and chronic effects.
Chronic Toxicological Effects: Long term exposure to muriatic acid can cause erosion of the teeth.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
7647-01-0	Hydrochloric acid {Hydrogen chloride}	n.a.	3	A4	n.a.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Hydrochloric acid
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN1789 **Packing Group:** II



15. REGULATORY INFORMATION

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:
[X] Yes [] No Acute (immediate) Health Hazard
[X] Yes [] No Chronic (delayed) Health Hazard
[] Yes [X] No Fire Hazard
[] Yes [X] No Sudden Release of Pressure Hazard
[X] Yes [] No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7647-01-0	Hydrochloric acid {Hydrogen chloride}	CAA HAP, ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test; CA PROP.65: No

Regulatory Information Statement: All components of this material are listed on the TSCA Inventory or are exempt.

16. OTHER INFORMATION

Revision Date: 04/16/2015
Preparer Name: W.M. Barr EHS Department (901)775-0100
Additional Information About This Product: No data available.

Company Policy or Disclaimer: The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

SAFETY DATA SHEET
Klean-Strip Muriatic Acid

Page: 8

Printed: 04/16/2015

Revision: 04/16/2015

Supersedes Revision: 03/27/2015



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

This industrial Safety Data Sheet is not intended for consumers and does not address consumer use of the product. For information regarding consumer applications of this product, refer to the product label.

Version 1.0 SDS Number: 660000000228 Revision Date: 05/19/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL
 Product code : 200000028236
 : B02906500003

Manufacturer or supplier's details

Company : Colgate-Palmolive Co
 300 Park Avenue
 New York, NY 10022

Telephone : US: Consumer Affairs - 1-800-468-6502

Emergency telephone number : For emergencies involving spill, leak, fire, exposure or accident call CHEMTREC (24hr) at (800) 424-9300 or (703) 527-3887.

Medical Emergency (24HR): For MEDICAL EMERGENCIES involving this product call: (888) 489-3861

Recommended use of the chemical and restrictions on use

Recommended use : A formulated multi-purpose cleaner

SECTION 2. HAZARDS IDENTIFICATION


Emergency Overview

Appearance	liquid
Colour	amber

GHS Classification

Skin irritation : Category 2
 Eye irritation : Category 2A
 Skin sensitisation : Category 1

GHS Label element

Hazard pictograms : 

Signal word : Warning



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

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Version 1.0

SDS Number: 660000000228

Revision Date: 05/19/2015

- Hazard statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
- Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

- Inhalation : No adverse effects due to inhalation are expected.
- Skin : May cause skin irritation upon prolonged contact.
- Eyes : Causes eye irritation on direct contact.
- Ingestion : May be harmful if swallowed in large quantities.
- Aggravated Medical Condition : None known.

Carcinogenicity:

- IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- OSHA** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen



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Version 1.0

SDS Number: 66000000228

Revision Date: 05/19/2015

by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
SODIUM HYDROXIDE	1310-73-2	>= 1 - < 5
CITRONELLA (CYMBOPOGON NARDUS) OIL	8000-29-1	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

- If inhaled : Remove victim to fresh air. Get medical attention, if symptoms persist.
- In case of skin contact : Flush skin with large amounts of water. If irritation develops and persists, get medical attention.
- In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
- If swallowed : Drink 8 ounces of clear water. Get medical attention.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Hazardous combustion products : No hazardous combustion products are known
- Special protective equipment for firefighters : Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protection recommended in Section 8 of the SDS.
- Methods and materials for containment and cleaning up : Cover with inert, absorbent material and remove to disposal container. Spill area may be slippery. Flush with plenty of water.



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Version 1.0

SDS Number: 660000000228

Revision Date: 05/19/2015

SECTION 7. HANDLING AND STORAGE

Conditions for safe storage : Store at controlled room temperature at 20-25°C (68-77°F).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
SODIUM HYDROXIDE	1310-73-2	C	2 mg/m3	ACGIH
		C	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		C	2 mg/m3	OSHA P0

Engineering measures : In an industrial work environment, no special precautions or control measures are required.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Protective measures : In an industrial work environment, if a splash is likely, chemical goggles may be needed. Prolonged skin contact may require protective gloves. For consumer use, no unusual precautions are necessary.

Hygiene measures : In an industrial work environment, avoid eye and prolonged skin contact.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : amber
pH : 11.0
Flash point : > 200 °F
Density : 1.0 g/cm3

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : Hazardous polymerisation does not occur.



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

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Version 1.0

SDS Number: 660000000228

Revision Date: 05/19/2015

Incompatible materials : Strong oxidizing agents
Hazardous decomposition products : None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

SODIUM HYDROXIDE:

Acute oral toxicity : LD50 (Rabbit): 500 mg/kg
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : Remarks: No data available

CITRONELLA (CYMBOPOGON NARDUS) OIL:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: No information available.

Skin corrosion/irritation

Causes skin irritation.

Components:

SODIUM HYDROXIDE:

Remarks: No data available

CITRONELLA (CYMBOPOGON NARDUS) OIL:

Result: Severe skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

SODIUM HYDROXIDE:

Remarks: No data available

CITRONELLA (CYMBOPOGON NARDUS) OIL:

Result: Risk of serious damage to eyes.



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

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Version 1.0

SDS Number: 660000000228

Revision Date: 05/19/2015

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Components:

SODIUM HYDROXIDE:

Exposure routes: Inhalation

Remarks: No data available

Exposure routes: Dermal

Remarks: No data available

CITRONELLA (CYMBOPOGON NARDUS) OIL:

Exposure routes: Inhalation

Remarks: No data available

Exposure routes: Dermal

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: This product has not been tested as a whole. However, this formula was reviewed by expert toxicologists in the Product Safety Assurance Department of Colgate-Palmolive and is determined to be safe for its intended use. This review has taken into consideration available safety-related information including information on individual ingredients, similar formulas and potential ingredient interactions. This review is a component of the hazard determination used to prepare the statements in Section 3 of the SDS.

SECTION 12. ECOLOGICAL INFORMATION

The product has not been tested as a whole for environmental toxicity. However, environmental information on the ingredients in this product have been reviewed by the Environmental, Health and Safety group of Colgate-Palmolive and determined to have an acceptable environmental profile. This evaluation is based on available information on individual ingredients, interactions of ingredients,



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Version 1.0 SDS Number: 660000000228 Revision Date: 05/19/2015

and similar ingredients. Biodegradability claims are supported by data on ingredients (i.e., surfactants are biodegradable) or testing conducted on the final product (i.e., This product is biodegradable).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environment agency for specific rules). Do not dump in sewers, any body of water or on the ground.

SECTION 14. TRANSPORT INFORMATION

DOT : Not regulated.

TDG : Not regulated.

IATA : Not regulated.

IMDG : Not regulated.

International Regulation

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Toxic by ingestion

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
SODIUM HYDROXIDE	1310-73-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

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Version 1.0 SDS Number: 660000000228 Revision Date: 05/19/2015

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

SODIUM HYDROXIDE 1310-73-2

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

SODIUM HYDROXIDE 1310-73-2

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

SODIUM HYDROXIDE 1310-73-2
TRISODIUM NITRILOTRIACETATE 5064-31-3

Pennsylvania Right To Know

WATER Water
Sodium tallate 61790-45-2
SODIUM HYDROXIDE 1310-73-2

New Jersey Right To Know

WATER Water
Sodium tallate 61790-45-2
SODIUM HYDROXIDE 1310-73-2

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : All ingredients in this product are listed on the TSCA Inventory or are not required to be listed on the TSCA Inventory.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)



MURPHY OIL SOAP WOOD CLEANER LIQUID - ORIGINAL

This industrial Safety Data Sheet is not intended for consumers and does not address consumer use of the product. For information regarding consumer applications of this product, refer to the product label.

Version 1.0

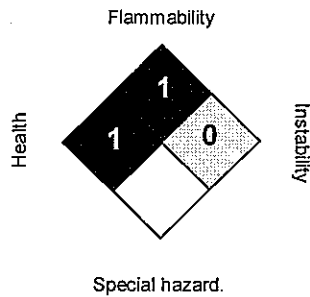
SDS Number: 660000000228

Revision Date: 05/19/2015

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Disclaimer: The information on this sheet is limited to the material identified and is believed by the Colgate-Palmolive Company to be correct based on its knowledge and information as of the date noted. Colgate makes no representation, guarantee or warranty, expressed or implied, as to the accuracy, reliability or completeness of the information and assumes no responsibility for injury, damage or loss resulting from the use of the material.

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MATERIAL SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: KRUD KUTTER® GRAFFITI REMOVER

Synonyms: Not applicable

Molecular Formula: Not applicable

Molecular Weight: Not applicable

Supplier:

Supreme Chemicals of Georgia, Inc.

1535 Oak Industrial Lane, Suite B

Cumming, GA 30041

USA

Emergency Telephone:

(CHEMTREC) 800-424-9300

(Non-emergency Telephone) 800- 466-7126

Intended Use: Cleaning agent to remove graffiti

2 HAZARDS IDENTIFICATION

Emergency Overview

Physical State: Liquid

Color: Clear

Odor: Sweet

WARNING!

May be harmful if inhaled, absorbed through skin, or swallowed.

May cause eye and skin irritation.

Mist or vapors may be irritating to the eyes, nose, throat and lungs.

Potential Health Effects

Inhalation: May be harmful; causes irritation. Exposure irritates the respiratory system and may cause asthmatic breathing and other systemic effects.

Eye Contact: May cause eye irritation. Exposure may cause eye tearing, redness, and discomfort.

Skin: May be harmful; May cause skin irritation. Exposure may cause redness, itching, inflammation and other systemic effects.

Ingestion: Not expected to be an ingestion hazard with prescribed use. Harmful. Exposure may cause vomiting, nausea, diarrhea or other systemic effects.

Chronic Health Effects: May cause blood disorders based on animal data. May cause liver damage based on animal data. May cause kidney damage based on animal data.

Target Organ(s): Eye, skin, blood, central nervous system, liver, kidney

OSHA Regulatory Status: Hazardous; Consumer Product Use: Exempt

3 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous component	CAS-No.	Weight %
benzyl alcohol	100-51-6	< 25
ethylene glycol monobutyl ether	111-76-2	< 15

Components not listed are not hazardous or are below reportable limits

4 FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean contaminated shoes before reuse.

Ingestion: If swallowed, DO NOT induce vomiting, unless directed by medical personnel. Get medical attention. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Water spray, dry chemical, carbon dioxide and alcohol foam

Unsuitable Extinguishing Media: Not applicable

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire & Explosion Hazards: None known

Hazardous Combustion Products: Carbon oxides

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment. See Section 8.

Spill Cleanup Methods: Small Liquid Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Large Spillages: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.

7 HANDLING AND STORAGE

Handling: Personal Precautionary Measures: Wear appropriate personal protective equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: None

Storage: Keep container closed. Keep out of reach of children.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	Source	Type	Exposure Limits	Notes
2-Butoxyethanol (EGBE)	ACGIH	TWA	20 ppm	Eye, upper respiratory irritation
2-Butoxyethanol	OSHA	TWA	50 ppm	Skin designation
2-Butoxyethanol	NIOSH	REL	5 ppm	Skin designation
2-Butoxyethanol	NIOSH	IDLH	700 ppm	Skin designation
2-Butoxyethanol	California OSHA	TWA	25 ppm	Skin designation
2-Butoxyethanol	Alberta	TWA	20 ppm	Skin designation
2-Butoxyethanol (EGBE)	British Columbia	TWA	20 ppm	Skin designation
2-Butoxyethanol	Ontario	TWAEV	20 ppm	Skin designation
2-Butoxyethanol	Quebec	TWA	25 ppm	Skin designation
2-Butoxyethanol	Mexico	TWA	26 ppm	Skin designation
Benzyl alcohol	AIHA OELs	WEELs	10 ppm	----

Engineering Controls: Not generally required when handling product. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: Wear splash goggles and a face shield where a splash hazard exists. Wear a full-face respirator, if needed.

Hand Protection: Wear chemical-resistant gloves. Contact health and safety professionals for additional information.

Skin Protection: Wear disposable coveralls, lab coat, or apron to prevent skin contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

Color: Clear
Odor: Sweet
Physical State: Liquid
pH: No data available
Boiling Point: 212 °C (413° F)
Melting Point: < 1.1 °C (< 30° F)
Flash Point: > 93.3° C (200° F)
Evaporation Rate: < 1 (Water = 1)
Flammability Limit – Upper (%): No data available
Flammability Limit – Lower (%): No data available
Vapor Pressure: 17 mm Hg (@ 20°C) (68° F)
Vapor Density (Air=1): 3.2
Specific Gravity: 1.0 – 1.02
Solubility in Water: Complete
Partition Coefficient (n-Octanol/water): No data available
Autoignition Temperature: Not applicable
Decomposition Temperature: No data available
Volatile Organic Compounds (VOC): No data available
Viscosity: No data available
Percent Volatile: No data available

10 STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: None known
Incompatible Materials: Strong oxidizing agents, strong acids
Hazardous Decomposition Products: Carbon oxides
Possibility of Hazardous Reactions: Will not occur.

11 TOXICOLOGICAL INFORMATION

Toxicity data is available for the components upon request.

Chronic Toxicity: Ethylene Glycol Monobutyl Ether: Long term exposure may cause damage to blood, kidneys and liver.

Listed Carcinogens

Chemical Name	IARC	NTP	OSHA	ACGIH
2-Butoxyethanol	3-Not classifiable in humans Limited data in animals	Not Listed	Not Listed	A3 – Confirmed animal carcinogen with unknown relevance to humans

12 ECOLOGICAL INFORMATION

Krud Kutter® Graffiti Remover is biodegradable.

13 DISPOSAL CONSIDERATIONS

General Information: Dispose in accordance with applicable federal, state, and local regulations.

Disposal Methods: No specific disposal method required.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied. Triple rinse containers and puncture containers before disposing into landfill.

14 TRANSPORT INFORMATION

DOT: Not regulated

TDG: Not regulated

IATA: Not regulated

IMDG: Not regulated

15 REGULATORY INFORMATION

Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: D1A, D2B

Mexico (NOM-018-STPS-2000): Benzyl alcohol: 2-1-0-2; 2-Butoxyetanol: 2-2-0-3

Inventory Status

This product or all components are listed on the following inventory: TSCA

DSL Inventory: No information available

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4):

Component	Reportable Quantity
Glycol ethers	--

SARA Title III

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): Regulated as generic under certain glycol ethers

Section 311/312 (40 CFR 370):

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

Section 313 Toxic Release Inventory (40 CFR 372):

Component	CAS No.	Concentration
Certain glycol ethers	111-76-2	< 15%

Clean Air Act (CCA) Section 112, 1990 Amendments, Statutory Hazardous Air Pollutants: None

Clean Air Act (CAA) Section 112(i) High-Risk Hazardous Air Pollutants (40 CFR 63.74): None

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): None

Clean Water Act Section 307 Toxic Pollutants (40 CFR 401.15): None

Clean Water Act Section 311 Hazardous Chemical (40 CFR 116.4): None

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None

Drug Enforcement Act: None

TSCA: Section 8(d) Health & Safety Data Reporting (40 CFR 716, Subpart B): 2-butoxyethanol

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): None

Massachusetts Right-To-Know List: 2- Butoxyethanol, benzyl alcohol

Minnesota Hazardous Substances List: 2- Butoxyethanol (EGBE), benzyl alcohol

New Jersey Right-To-Know List: 2-Butoxyethanol

Pennsylvania Right-To-Know Substances: 2-Butoxyethanol, benzyl alcohol

16	OTHER INFORMATION
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Hazard Ratings

	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
NFPA	2	1	0	

	Health Hazard	Fire Hazard	Reactivity Hazard
HMIS	2*	1	0

0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe; *- Chronic health effect

Revision Information: Updated all sections of the MSDS.

Prepared by: Supreme Chemicals of Georgia, Inc.

Issue Date: 06/12/07

Supersedes Date: 02/24/06

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the

sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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1 Identification of the substance and manufacturer

Trade name: CONTACT CLEANER
 Product code: 0006201526
 Product category: PC35 Washing and cleaning products (including solvent based products)
 Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178
 Phone: 815-895-9101 www.seymourpaint.com
 Emergency telephone number: CHEMTEL 1-800-255-3924, or 813-248-0585.

2 Hazard(s) identification

Classification of the substance or mixture
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Carc. 2 H351 Suspected of causing cancer.
 GHS Hazard pictograms



GHS04 GHS07 GHS08

Signal word: Warning
 Hazard statements: Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.
 Suspected of causing cancer.
 Precautionary statements: Obtain special instructions before use.
 Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not handle until all safety precautions have been read and understood.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Store locked up.
 Protect from sunlight. Store in a well-ventilated place.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures
 Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:	
127-18-4 perchloroethylene	97.0%

4 First-aid measures

After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
 After eye contact: Rinse opened eye for several minutes under running water.
 After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.
 Most important symptoms and effects: No further relevant information available.
 Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Special hazards: No further relevant information available.
 Protective equipment for firefighters: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
 Methods and material for containment and cleaning up: Ensure adequate ventilation.
 Dispose contaminated material as waste according to section 13.

7 Handling and storage

Precautions for safe handling: Use only in well ventilated areas.
 Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

Trade name: CONTACT CLEANER

(Contd. of page 1)

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

127-18-4 perchloroethylene

PEL (USA)	Long-term value: 100 ppm Ceiling limit value: 200; 300* ppm *5-min peak in any 3 hrs
REL (USA)	Minimize workplace exp. concs.; Pocket Guide App. A
TLV (USA)	Short-term value: 685 mg/m ³ , 100 ppm Long-term value: 170 mg/m ³ , 25 ppm BEI

Ingredients with biological limit values:

127-18-4 perchloroethylene

BEI (USA)	3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene
	0.5 mg/L Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use.
Wash hands after use.
Do not eat or drink while working.

Breathing equipment: Not required.

Hand protection: Nitrile gloves.
Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Not required.

9 Physical and chemical properties

Odor:	Aromatic
Odor threshold:	Not determined.
pH-value:	Not determined.
Melting point/Melting range	Undetermined.
Boiling point:	121 °C (250 °F)
Flash point:	-1 °C (30 °F)
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	Not determined.
Lower Explosion Limit:	Not determined.
Upper Explosion Limit:	Not determined.
Vapor pressure at 20 °C (68 °F):	19 hPa (14 mm Hg)
Vapour density	Not determined.
Evaporation rate	Not applicable.
Partition coefficient: n-octonal/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
VOC content:	
VOC content (less exempt solvents):	0.0 %
MIR Value:	0.04
Solids content:	3.0 %

10 Stability and reactivity

Conditions to avoid:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects:	No data available.
Skin effects:	No irritant effect.
Eye effects:	No irritating effect.
Sensitization:	No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)	
127-18-4 perchloroethylene	2A
NTP (National Toxicology Program)	
127-18-4 perchloroethylene	R

(Contd. on page 3)

Trade name: CONTACT CLEANER

(Contd. of page 2)

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Ecotoxicological effects:
Remark: Toxic for fish
Other adverse effects: No further relevant information available.


13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number
DOT UN1950
DOT UN1950
ADR Aerosols, non-flammable, containing substances in Division 6.1, Packing Group I or II
Transport hazard class(es): 1950 Aerosols, ENVIRONMENTALLY HAZARDOUS
Class
Marine pollutant: 2.2
Special marking (ADR): Yes
Special marking (IATA): Symbol (fish and tree)
Special precautions for user: Symbol (fish and tree)
EMS Number: Warning: Gases
UN "Model Regulation": F-A,S-F
 UN1950, Aerosols, ENVIRONMENTALLY HAZARDOUS, 2.2 (6.1)

15 Regulatory information

SARA Section 355 (extremely hazardous substances):
 None of the ingredients in this product are listed.
SARA Section 313 (Specific toxic chemical listings):
 127-18-4 perchloroethylene
CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.
California Proposition 65 chemicals known to cause cancer:
 127-18-4 perchloroethylene
CANADIAN ENVIRONMENTAL PROTECTION ACT:
WHMIS Symbols for Canada: All hazardous ingredients for this product appear on the Canadian Domestic Substance List.
 A - Compressed gas
 D2B - Toxic material causing other toxic effects

EPA:
 127-18-4 perchloroethylene | L

16 Other information

Contact: Regulatory Affairs
Date of preparation / last revision 02/08/2016 / -

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : LIME-A-WAY
Other means of identification : not applicable
Recommended use : Delimer
Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.8% - 2.3%

Company : Ecolab Inc.
370 N. Wabasha Street
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency telephone : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 08/06/2014

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification****Product AS SOLD**

Skin corrosion : Category 1A
Serious eye damage : Category 1

Product AT USE DILUTION

Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS Label element**Product AS SOLD**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling. Wear protective gloves/
protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN
(or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water/ shower. IF INHALED: Remove victim to fresh
air and keep at rest in a position comfortable for breathing. IF IN
EYES: Rinse cautiously with water for several minutes. Remove
contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/ physician. Wash
contaminated clothing before reuse.
Storage:

SAFETY DATA SHEET

LIME-A-WAY

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: Causes severe skin burns and eye damage.

Precautionary Statements

: **Prevention:**

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
---------------	---------	-------------------

uronium hydrogen sulphate	21351-39-3	10 - 30
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Urea	57-13-6	1 - 5
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oxirane, methyl-, polymer with oxirane	9003-11-6	0.1 - 1
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Product AT USE DILUTION

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

SAFETY DATA SHEET

LIME-A-WAY

- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
- Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Treat symptomatically.

Product AT USE DILUTION

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

See toxicological information (Section 11)

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials:
Carbon oxides
nitrogen oxides (NOx)
Sulfur oxides
Oxides of phosphorus
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

- Personal precautions, : Ensure adequate ventilation. Keep people away from and upwind of

SAFETY DATA SHEET

LIME-A-WAY

protective equipment and emergency procedures : spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.

Storage temperature : 0 °C to 50 °C

Product AT USE DILUTION

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

SAFETY DATA SHEET

LIME-A-WAY

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
Urea	57-13-6	TWA	10 mg/m3	WEEL

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION	
Engineering measures	: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.
Personal protective equipment	
Eye protection	: Safety goggles Face-shield
Hand protection	: Wear the following personal protective equipment: Standard glove type. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Color	: clear, dark green	light blue
Odor	: odorless	odorless
pH	: 0.1 - 0.2, 100 %	0.9 - 1.8

SAFETY DATA SHEET

LIME-A-WAY

Flash point	: not applicable
Odor Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: 100 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapor pressure	: no data available
Relative vapor density	: no data available
Relative density	: 1.132 - 1.162
Water solubility	: soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Autoignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available
Molecular weight	: no data available
VOC	: no data available

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Bases Metals
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

SAFETY DATA SHEET

LIME-A-WAY

Product AS SOLD

- Eyes : Causes serious eye damage.
- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

- Eyes : Causes serious eye damage.
- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

- Eye contact : Redness, Pain, Corrosion
- Skin contact : Redness, Pain, Corrosion
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough

Product AT USE DILUTION

- Eye contact : Redness, Pain, Corrosion
- Skin contact : Redness, Pain, Corrosion
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough

Toxicity

Product AS SOLD

- Acute oral toxicity : no data available
- Acute inhalation toxicity : no data available
- Acute dermal toxicity : no data available
- Skin corrosion/irritation : no data available
- Serious eye damage/eye irritation : no data available
- Respiratory or skin sensitization : no data available
- Carcinogenicity : no data available
- Reproductive effects : no data available

SAFETY DATA SHEET

LIME-A-WAY

Germ cell mutagenicity : no data available
Teratogenicity : no data available
STOT-single exposure : no data available
STOT-repeated exposure : no data available
Aspiration toxicity : no data available

Ingredients

Acute oral toxicity : uronium hydrogen sulphate
LD50 rat: > 2,000 mg/kg

Urea
LD50 rat: 8,471 mg/kg

Ingredients

Acute inhalation toxicity : Urea
4 h LC50 rat: > 2.71 mg/l

oxirane, methyl-, polymer with oxirane
4 h LC50 rat: 0.147 mg/l

Ingredients

Acute dermal toxicity : uronium hydrogen sulphate
LD50 rabbit: > 2,000 mg/kg

Urea
LD50 rat: 8,200 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : no data available
Toxicity to daphnia and other aquatic invertebrates : no data available
Toxicity to algae : no data available

Ingredients

Toxicity to fish : uronium hydrogen sulphate
96 h LC50 Fish: > 6,810 mg/l

Urea
96 h LC50 Fish: 127.9 mg/l

oxirane, methyl-, polymer with oxirane
96 h LC50 Fish: > 100 mg/l

Persistence and degradability

no data available

Bioaccumulative potential

SAFETY DATA SHEET

LIME-A-WAY

no data available

Mobility in soil

no data available

Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

Product AT USE DILUTION

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number : 3265
Description of the goods : Corrosive liquid, acidic, organic, n.o.s.
(uronium hydrogen sulphate)
Class : 8
Packing group : II
Environmentally hazardous : no

Sea transport (IMDG/IMO)

UN number : 3265
Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(uronium hydrogen sulphate)
Class : 8
Packing group : II
Marine pollutant : no

Product AT USE DILUTION

SAFETY DATA SHEET

LIME-A-WAY

Not intended for transport.

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

1907/2006 (EU) :
not determined

United States TSCA Inventory :
On TSCA Inventory

Canadian Domestic Substances List (DSL) :
All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS) :
not determined

New Zealand. Inventory of Chemical Substances :
On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :
not determined

Japan. ISHL - Inventory of Chemical Substances (METI) :
not determined

Korea. Korean Existing Chemicals Inventory (KECI) :
not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
not determined

China. Inventory of Existing Chemical Substances in China (IECSC) :
not determined

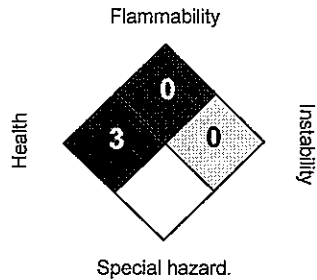
SAFETY DATA SHEET

LIME-A-WAY

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



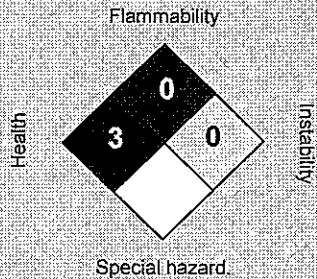
HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date : 08/06/2014
Version : 1.0
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SAFETY DATA SHEET

SAVOGRAN

TSP-PF

Revision: 6/2/2015

Page 1 of 5

1. Product and Company Identification

Product Name : TSP-PF
Product Code : 611N
Recommended Use: Cleaner

Company Identification:

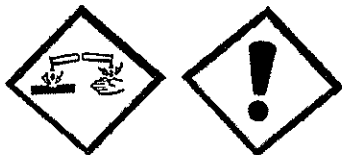
SAVOGRAN
259 LENOX STREET
PO BOX 130
NORWOOD, MA 02062-0130
Information Phone: 781-762-5400
Emergency Phone: 800-424-9300
Website Address: www.savogran.com

Synonyms: 10611,10612,10613,11615

2. Hazards Identification

Classification:

Skin corrosion: Category 1B/Serious eye irritation: Category 2



Label Hazard Statement:

WARNING; Harmful if swallowed. Eye and skin irritant. May cause burns.

Potential Health Effects:

Eye:

Eye contact can cause severe irritation, redness, tearing, blurred vision and may cause transient injury to cornea.

Skin:

Prolonged and/or repeated contact may cause irritation and/or dermatitis. Contact with skin causes irritation and positive burns, especially if the skin is wet or moist.

Ingestion:

May cause irritation, burns to mouth and esophagus, Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

Inhalation:

Inhalation of dust can cause nasal and respiratory irritation.

Chronic Overexposure Information:

NO DATA

SAFETY DATA SHEET

SAVOGRAN

TSP-PF

Revision: 6/2/2015

Page 2 of 5

Teratology and Reproduction Information:

NO DATA

Aggravation of Pre-Existing Conditions:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

OSHA Hazard Communication Standard:

This product is defined as hazardous by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

3. Composition/Information on Ingredients

Component	CAS#	% by Wt.
SQUICARBONATE	533-96-0	90% - 95%
RE GUIDELINES NOT LISTED		
TASILICATE	6834-92-0	0% - 5%
RE GUIDELINES NOT LISTED		
TRASODIUM	64-02-8	0% - 5%
EXPOSURE GUIDELINES NOT LISTED		

4. First Aid Measures

Eyes:

Flood with plenty of water with eye lids held open for at least 15 minutes and get medical attention promptly.

Skin:

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion:

Do NOT induce vomiting. If conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention.

Note to Physicians:

Treat symptomatically. No specific antidote available.

5. Fire Fighting Measures

Flammable Properties:

None

Hazardous Combustion Products:

May form carbon dioxide and carbon monoxide.

SAFETY DATA SHEET

SAVOGRAN

3P-PF

Revision: 6/2/2015

Page 3 of 5

Extinguishing Media:

Not combustible. Use extinguishing method suitable for surrounding fire.

Firefighting Procedures:

Solutions in water are moderately to strong alkaline. Wear full protective clothing.

6. Accidental Release Measures

Small Spill:

Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

Large Spill:

Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

Environmental Precautions:

Do not release into sewers or waterways.

Methods/Materials for Containment and Cleaning Up:

Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

7. Handling and Storage

Handling:

Avoid direct or prolonged contact with skin and eyes. Avoid breathing dusts. Do not ingest.

Storage:

Store in an area that is cool and dry. Moisture can cause caking.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: See Section 3

Engineering Controls:

When a potential for excessive exposure exists, use local ventilation at the point of generation.

Personal Protective Equipment:

Respiratory Protection:

Wear NIOSH/MSHA approved dust respirator, if dust is formed.

SAFETY DATA SHEET

SAVOGRAN

TSP-PF

Revision: 6/2/2015

Page 4 of 5

Skin Protection:

Use dust proof gloves.

Eye Protection:

Use dust proof goggles if dust is irritating eyes.

9. Physical and Chemical Properties

Boiling Point: NA

Melting Point: NO DATA

Freezing Point: NO DATA

Vapor Pressure: NA

Vapor Density: NA

Solubility in Water: MODERATE

Evaporation Rate: NA

Flash Point: NA

Method: NO DATA

Lower explosive limit: NO DATA

Upper explosive limit: NO DATA

Autoignition Temperature: NO DATA

Specific Gravity: 2.021

pH(1% in H₂O): 10-11

Odor: None

Appearance:: White crystalline solid

10. Stability and Reactivity

Chemical Stability (Conditions to Avoid):

Incompatibility:

Solutions in water are highly alkaline and may produce hydrogen gas when in contact with aluminum. Will react with acids to form carbon dioxide.

Hazardous Decomposition Products:

Carbon monoxide and carbon dioxide

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute:

This product has not been tested as a whole.

Subchronic:

This product has not been tested as a whole.

Chronic/Carcinogenicity:

Not listed by ACGIH, IARC, NIOSH, NTP or OSHA

Routes of Exposure:

Inhalation, Ingestion

SAFETY DATA SHEET

SAVOGRAN

SP-PF

Revision: 6/2/2015

Page 5 of 5

12. Ecological Information

Environmental Fate: This product has not been tested as a whole.

13. Disposal Considerations

Waste Disposal Method:

Small quantities may be deposited in general trash and residue flushed down drain with water. Large spills must be disposed of in accordance with local state and federal regulations.

14. Transport Information

Land Transport (DOT):

Not Regulated

15. Regulatory Information

U.S. Federal Regulations:

TSCA: The intentional ingredients of this product are listed.

OSHA: The intentional regulated ingredients of this product are listed.

CERCLA: SARA Hazard Category: None

Section 313: Not Listed

Reportable Quantity: None of the chemicals in this material have an RQ

State Regulations:

NO DATA

Volatile Organic Compounds: None

16. Other Information:

NFPA Ratings: 2,0,0

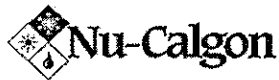
Manufacturer Disclaimer:

Judgement of potential hazards of this product is based on information available about individual components listed under section 3 - Ingredients. Direct testing of mixture has not been done. Information given herein is believed to be accurate and is given in good faith. However, no warranty either expressed or implied is made. It is strongly suggested that users confirm in advance of need that the information is current and applicable to their situations.

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MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product name NU-BRITE (4291-01, 4291-05, 4291-08, 4891-08)
CAS # Mixture
Product Use Coil Cleaner / Degreaser
Manufacturer Nu-Calgon
2008 Altom Court
St. Louis, MO 63146 US
Phone: 314-469-7000 / 800-554-5499
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Emergency overview DANGER
CAUSES EYE BURNS. CAUSES SKIN BURNS.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes Causes chemical burns. May cause blindness.

Skin Causes chemical burns. Harmful contact may not cause immediate pain.

Inhalation May cause respiratory tract irritation or chemical burns.

Ingestion Harmful if swallowed. Causes chemical burns to mouth, throat and stomach.

Target organs Eyes. Respiratory system. Skin.

Chronic effects Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

Signs and symptoms The product causes burns of eyes, skin and mucous membranes.

Potential environmental effects Components of this product have been identified as having potential environmental concerns.

3. Composition/Information on Ingredients

Components	CAS #	Percent
Sodium hydroxide	1310-73-2	15 - 40
Alkyl polyglycoside	110615-47-9	1 - 5

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical advice immediately.

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician Treat patient symptomatically.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Use of an impervious apron is recommended. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties Not flammable by WHMIS criteria.

Extinguishing media

Suitable extinguishing media Dry chemical. Water spray. Carbon dioxide. Foam.

Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	No.
Sensitivity to static discharge	No.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling	Ensure adequate ventilation. Do not get in eyes, on skin or on clothing. Use good industrial hygiene practices in handling this material. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid breathing vapours or mists of this product.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls/Personal Protection

Occupational exposure limits		
US. ACGIH Threshold Limit Values		
Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m ³
Exposure limits	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.	
Engineering controls	General ventilation normally adequate.	
Personal protective equipment		
Eye/Face protection	Wear chemical goggles.	
Hand protection	Rubber gloves. Confirm with a reputable supplier first.	
Skin and body protection	As required by employer code. Rubber apron recommended.	
Respiratory protection	Avoid breathing mists or vapours. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.	
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.	

9. Physical and Chemical Properties

Appearance	Liquid
Colour	Blue
Form	Liquid
Odour	Characteristic, Mild

Odour threshold	Not available.
Physical state	Liquid.
pH	14 (Concentrate)
Freezing point	0 °C (32 °F)
Boiling point	100 °C (212 °F)
Pour point	Not available.
Evaporation rate	Not available
Flash point	None to boiling
Auto-ignition temperature	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Flammability Limits in Air, Lower, % by Volume	Not available
Heat of combustion	Not available.
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	1.242 ± 0.005
Partition coefficient (n-octanol/water)	Not available
Solubility (Water)	Complete
Relative density	Not available.
Viscosity	Not available.
VOC	Not available
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	Reacts violently with acids. This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Hazardous vapours may be produced when mixed with chlorinated detergents or sanitizers. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Toxicological data

Components	Species	Test results
Alkyl polyglycoside (CAS 110615-47-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Sodium hydroxide (CAS 1310-73-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1350 mg/kg

Components	Species	Test results
<i>Inhalation</i> LC50	Not available	
<i>Oral</i> LD50	Not available	
Effects of acute exposure		
Eye contact	Causes chemical burns. May cause blindness.	
Skin contact	Causes chemical burns. Harmful contact may not cause immediate pain.	
Inhalation	May cause respiratory tract irritation or chemical burns.	
Ingestion	Harmful if swallowed. Causes chemical burns to mouth, throat and stomach.	
Sensitisation	Non-hazardous by WHMIS criteria.	
Chronic effects	Non-hazardous by WHMIS criteria.	
Carcinogenicity	Non-hazardous by WHMIS criteria.	
Mutagenicity	Non-hazardous by WHMIS criteria.	
Reproductive effects	Non-hazardous by WHMIS criteria.	
Teratogenicity	Non-hazardous by WHMIS criteria.	
Name of Toxicologically Synergistic Products	Not available.	

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicological data

Components	Species	Test results
Sodium hydroxide (CAS 1310-73-2)		
<i>Aquatic</i>		
Crustacea	EC50 Water flea (<i>Ceriodaphnia dubia</i>)	34.59 - 47.13 mg/l, 48 hours
Fish	LC50 Western mosquitofish (<i>Gambusia affinis</i>)	125 mg/l, 96 hours

Persistence and degradability	Not available.
Bioaccumulation/accumulation	Not available
Mobility in environmental media	Not available.
Environmental effects	Not available.
Aquatic toxicity	Not available.
Partition coefficient	Not available.
Chemical fate information	Not available.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN3266
Proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Hazard class	8
Packing group	II
Special provisions	16
Packaging exceptions	<1L - Limited Quantity

TDG



15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada WHMIS Ingredient Disclosure: Threshold limits

Sodium hydroxide (CAS 1310-73-2) 1 %

WHMIS status Controlled
WHMIS Classification Class E - Corrosive Material
WHMIS labeling



Inventory status

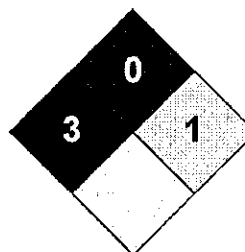
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 18-August-2014
Effective date 15-August-2014
Expiry Date 15-August-2017
Prepared by Nu-Calgon Technical Service Phone: (314) 469-7000

Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.

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MATERIAL SAFETY DATA SHEET

REVISION DATE: 08-28-2013

SUPERSEDES: None

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.
1105 S. Frontenac Street
Aurora, IL 60504
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT INFORMATION

PRODUCT NUMBER: FLORCRAFT WALL-BASE ADHESIVE
PRODUCT DESCRIPTION: Mastic
PRODUCT IDENTIFIER: 836870PM

SECTION 2: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

PHYSICAL STATE: Semi-solid
COLOR: Tan
ODOR: Odorless

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY

EYE: No irritation hazard in normal industrial use.

SKIN: Can cause minor skin irritation, defatting, and dermatitis.

INHALATION: Can cause minor respiratory irritation. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

INGESTION: Ingestion is not an anticipated route of exposure. No hazard in normal industrial use.

LONG-TERM (CHRONIC) HEALTH EFFECTS

TARGET ORGAN(S): Lungs

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: Lung disease

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT
Kaolin clay	1332-58-7	30 - 50

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

SECTION 4: FIRST AID MEASURES

IF IN EYES: None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

MATERIAL SAFETY DATA SHEET

IF ON SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.
IF VAPORS INHALED: Remove to fresh air. Call a physician if symptoms persist.
IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	Non flammable
AUTOIGNITION TEMPERATURE:	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
UPPER EXPLOSIVE LIMIT (% in air):	Not established
EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide Nitrogen containing gases

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

CLEAN-UP: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7: HANDLING AND STORAGE

Handling: No special handling instructions due to toxicity.

Storage: Store in a cool, dry place.
 Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION:	Wear safety glasses when handling this product.
SKIN PROTECTION:	Avoid skin contact by wearing chemically resistant gloves.
GLOVES:	Not normally required. Use nitrile gloves if conditions warrant.
RESPIRATORY PROTECTION:	Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).
VENTILATION:	Use local exhaust ventilation or other engineering controls to minimize exposures.

EXPOSURE LIMITS:

Chemical Name	ACGIH EXPOSURE LIMITS	OSHA PEL
Kaolin clay	2 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

MATERIAL SAFETY DATA SHEET

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Semi-solid
COLOR:	Tan
ODOR:	Odorless
ODOR THRESHOLD:	Not established
WEIGHT PER GALLON (lbs.):	10.90
SPECIFIC GRAVITY:	1.300
pH:	9.0
FLASH POINT:	Non flammable
BOILING POINT (deg. C):	Not established
FREEZING/MELTING POINT (deg. C):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
EVAPORATION RATE:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
VOC, weight percent	0.37
VOC, EPA Method 24, less water and exempt solvents (theoretically determined)	10g/liter of material

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide Nitrogen containing gases

SECTION 11: TOXICOLOGICAL INFORMATION

COMPONENT	LD50 ORAL	LC50 INHALATION	LD50 DERMAL
Kaolin clay	Not established		

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14: TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

DOT: NOT REGULATED
 IATA: NOT REGULATED

SECTION 15: REGULATORY INFORMATION
INVENTORY STATUS

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from

MATERIAL SAFETY DATA SHEET

EUROPEAN REACH: DSL requirements.
 As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

PHILIPPINES: This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at 651-236-5858 (USA) or 450-655-1306 x227 (Canada) to request an export review.

FEDERAL REPORTING

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

STATE REPORTING

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Quartz (Carcinogen)	14808-60-7	0.01 - 0.1
Ethyl acrylate (Carcinogen)	140-88-5	0.001 - 0.01
Dibromoacetonitrile (Carcinogen)	3252-43-5	0.001 - 0.01
Acrylamide (Carcinogen)	79-06-1	< 10 ppm
1,4-Dioxane (Carcinogen)	123-91-1	< 10 ppm
C.I. Direct blue 15 (Carcinogen)	2429-74-5	< 10 ppm
Acrylonitrile (Carcinogen)	107-13-1	< 10 ppm
Acrylamide (Developmental toxin)	79-06-1	< 10 ppm
Acrylamide (Male reproductive toxin)	79-06-1	< 10 ppm

SECTION 16: ADDITIONAL INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

MATERIAL SAFETY DATA SHEET

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B. Fuller Construction Products, Inc. from its suppliers, and because H.B. Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B. Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B. Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

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Print Date: 03-12-2015

 TEC SS WALL BASE ADHESIVE
 835083PM

SAFETY DATA SHEET

REVISION DATE: 02-13-2015

SUPERSEDES: 02-10-2015

SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER
PRODUCT INFORMATION

PRODUCT: TEC SS WALL BASE ADHESIVE
PRODUCT DESCRIPTION: Mastic
INTENDED USE: Adhesive
PRODUCT IDENTIFIER: 835083PM

COMPANY INFORMATION

H.B. Fuller Construction Products Inc.
 1105 S. Frontenac Street
 Aurora, IL 60504
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION
GHS Hazard Symbols:


GHS Signal Word: Warning
GHS Classification: Serious Eye Damage/Eye Irritation Category 2
GHS Hazard Phrases: Causes serious eye irritation.
GHS Precautions:
Safety Precautions: Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
Butyl acrylate/vinyl benzene polymer	25767-47-9	10 - 30	Eye Irrit. 2; H319	

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

SECTION 4: FIRST AID MEASURES

SAFETY DATA SHEET

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS: There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.

SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, Carbon monoxide Nitrogen containing gases

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

METHODS FOR CLEAN-UP: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7: HANDLING AND STORAGE

Handling: No special handling instructions due to toxicity.

Storage: Store in a cool, dry place. Protect from freezing
 Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Kaolin clay	* (see below)	2 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

ENGINEERING CONTROL METHODS:

VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures.

EYE PROTECTION: Wear safety glasses with side shields when handling this product.
 Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with

Print Date: 03-12-2015

 TEC SS WALL BASE ADHESIVE
 835083PM

SAFETY DATA SHEET

SKIN PROTECTION: splashing or spraying liquid, or airborne material. Have an eye wash station available.
 Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact.
 GLOVES: Not normally required. Use nitrile gloves if conditions warrant.
 RESPIRATORY PROTECTION: Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
 Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Semi-solid
COLOR:	Tan
ODOR:	Odorless
ODOR THRESHOLD:	Not established
pH:	9.0
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	10.90
SPECIFIC GRAVITY:	1.300
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
VOC, weight percent	0.37
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	10g/liter of material

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide Nitrogen containing gases

SECTION 11: TOXICOLOGICAL INFORMATION

Component Toxicity / Toxicology Data:

COMPONENT NAME	LD50/LC50
Diethyleneglycol dibenzoate	ORAL LD50 RAT 2,830 MG/KG

This product is a mixture. Unless noted, the information below is based on components.

SAFETY DATA SHEET

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.
Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.
Respiratory / skin sensitization: No data available. .
Germ cell mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive toxicity: No data available.
Specific target organ toxicity-single exposure: No data available.
Respiratory irritation / Narcotic effects: No data available.
Specific target organ toxicity-repeated exposure: No data available.
Target organs potentially affected by exposure: Lungs
Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Lung disease

SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available for this product.
MOBILITY: No data available.
PERSISTENCE: No data available.
BIOACCUMULATION: No data available.

This product has not been tested for ecological effects. Relevant information for components is listed below:

Component:	Ecotoxicity values:
Urea	Acute Toxicity (Fish): 96 Hr LC50 Poecilia reticulata: 16200 - 18300 mg/L Acute Toxicity (Daphnia): 24 Hr EC50 Daphnia magna Straus: >10000 mg/L; 48 Hr EC50 Daphnia magna: 3910 mg/L [Static] Acute Toxicity (Algae): Not established

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED
IATA: NOT REGULATED

SECTION 15: REGULATORY INFORMATION**INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

Print Date: 03-12-2015

SAFETY DATA SHEET

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.
KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.
PHILIPPINES: This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.

If you need more information about the inventory status of this product call 651-236-5858.

 This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at reg.request@hbfuller.com to request an export review.

FEDERAL REPORTING

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

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STATE REPORTING

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List		CAS	Percent
Quartz	(Carcinogen)	14808-60-7	0.01 - 0.1
Ethyl acrylate	(Carcinogen)	140-88-5	0.001 - 0.01
Dibromoacetonitrile	(Carcinogen)	3252-43-5	0.001 - 0.01
Acrylamide	(Carcinogen)	79-06-1	< 10 ppm
1,4-Dioxane	(Carcinogen)	123-91-1	< 10 ppm
C.I. Direct blue 15	(Carcinogen)	2429-74-5	< 10 ppm
Acrylonitrile	(Carcinogen)	107-13-1	< 10 ppm
Acrylamide	(Developmental toxin)	79-06-1	< 10 ppm
Acrylamide	(Male reproductive toxin)	79-06-1	< 10 ppm

Substances of Very High Concern (SVHC) Content:

Unless listed below, this product does not contain SVHC's.

4-Nonylphenol, ethoxylated

SECTION 16: OTHER INFORMATION

SDS VERSION DATE: 02-13-2015

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.



TEC SS WALL BASE ADHESIVE
835083PM

Print Date: 03-12-2015

SAFETY DATA SHEET

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B. Fuller Construction Products, Inc. from its suppliers, and because H.B. Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B. Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B. Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

SAFETY DATA SHEET

1. Identification

Material name: DYMONIC WHITE
Material: 955806 323

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S Sealants
3735 Green Road
Cleveland OH 44122
US

Contact person: EH&S Department
Telephone: 216-292-5000
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Carcinogenicity	Category 1A
Toxic to reproduction	Category 2

Unknown toxicity - Health

Acute toxicity, oral	14.47 %
Acute toxicity, dermal	30.9 %
Acute toxicity, inhalation, vapor	98.27 %
Acute toxicity, inhalation, dust or mist	86.33 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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Unknown toxicity - Environment

Acute hazards to the aquatic environment	80.64 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement:	May cause cancer. Suspected of damaging fertility or the unborn child. Harmful to aquatic life.
Precautionary Statement:	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	If exposed or concerned: Get medical advice/attention.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
Calcium Carbonate (Limestone)	1317-65-3	10 - 30%
Calcium salt	7778-18-9	10 - 30%
Titanium dioxide	13463-67-7	3 - 7%
White mineral oil	8042-47-5	1 - 5%
Petroleum distillates	64742-47-8	1 - 5%
Toluene	108-88-3	1 - 5%
Paraffin	8002-74-2	0.5 - 1.5%
Methyl isobutyl ketone	108-10-1	0.1 - 1%
Aluminum oxide	1344-28-1	0.1 - 1%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Calcium Carbonate (Limestone) - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium Carbonate (Limestone) - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Inhalable fraction.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Calcium salt - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
White mineral oil - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (2011)
White mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
Toluene	TWA	20 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	200 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)

Paraffin - Fume.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
Methyl isobutyl ketone	TWA	20 ppm	US. ACGIH Threshold Limit Values (2011)
	STEL	75 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	100 ppm 410 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum oxide - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Total dust.	TWA	0.3 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)

Chemical name	type	Exposure Limit Values	Source
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)

Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt - Inhalable	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium salt - Inhalable fraction.	TWAEV	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium salt - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
White mineral oil - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
White mineral oil - Mist.	TWAEV	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)

White mineral oil - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Petroleum distillates	TWAEV	525 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Toluene	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Toluene	TWAEV	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Toluene	TWA	50 ppm 188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Methyl isobutyl ketone	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
	STEL	75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Methyl isobutyl ketone	TWAEV	50 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	75 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Methyl isobutyl ketone	STEL	75 ppm 307 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	TWA	50 ppm 205 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the

			Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWAEV	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Toluene (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Toluene (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
Toluene (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Methyl isobutyl ketone (methyl isobutyl ketone: Sampling time: End of shift.)	1 mg/l (Urine)	ACGIH BEL (03 2013)

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information:	Use personal protective equipment as required.
Eye/face protection:	Wear goggles/face shield.
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	No data available.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

9. Physical and chemical properties**Appearance**

Physical state:	solid
Form:	Paste
Color:	White
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	No data available.
Evaporation rate:	Slower than n-Butyl Acetate
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.286
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	Alcohols. Amines. Strong acids. Strong bases. Water, moisture.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes mild skin irritation.
Eye contact:	Eye contact is possible and should be avoided.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral	
Product:	ATEmix: 40,135.46 mg/kg
Dermal	
Product:	ATEmix: 7,910.98 mg/kg
Inhalation	
Product:	No data available.

Repeated dose toxicity	
Product:	No data available.

Skin Corrosion/Irritation	
Product:	No data available.

Serious Eye Damage/Eye Irritation	
Product:	No data available.

Specified substance(s):

Calcium salt	in vivo (Rabbit, 72 hrs): Not irritating
Titanium dioxide	in vivo (Rabbit, 24 - 72 hrs): Not irritating
White mineral oil	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Petroleum distillates	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Toluene	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Paraffin	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Methyl isobutyl ketone	in vivo (Rabbit, 24 - 72 hrs): Slightly irritating (Not Classified)
Aluminum oxide	in vivo (Rabbit, 24 hrs): Not irritating

Respiratory or Skin Sensitization

Product:	No data available.
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Carcinogenicity**Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Titanium dioxide	Overall evaluation: Possibly carcinogenic to humans.
Methyl isobutyl ketone	Overall evaluation: Possibly carcinogenic to humans.
Crystalline Silica (Quartz)/ Silica Sand	Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Crystalline Silica (Quartz)/ Sand	Known To Be Human Carcinogen.
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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro**
Product: No data available.**In vivo**
Product: No data available.**Reproductive toxicity****Product:** Suspected of damaging fertility or the unborn child.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:**

Fish

Product:	No data available.
Specified substance(s):	
Calcium salt	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): > 1,970 mg/l Mortality
Titanium dioxide	LC 50 (Mummichog (<i>Fundulus heteroclitus</i>), 96 h): > 1,000 mg/l Mortality
Petroleum distillates	LC 50 (Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>), 96 h): 2.9 mg/l Mortality
Toluene	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): 71.7 - 82.8 mg/l Mortality
Methyl isobutyl ketone	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): 496 - 514 mg/l Mortality

Aquatic Invertebrates

Product:	No data available.
Specified substance(s):	
Calcium salt	LC 50 (Water flea (<i>Daphnia magna</i>), 24 h): > 1,970 mg/l Mortality LC 50 (Water flea (<i>Ceriodaphnia dubia</i>), 24 h): > 1,940 mg/l Mortality LC 50 (Water flea (<i>Ceriodaphnia dubia</i>), 48 h): > 1,970 mg/l Mortality LC 50 (Water flea (<i>Ceriodaphnia dubia</i>), 48 h): > 1,910 mg/l Mortality
Titanium dioxide	EC 50 (Water flea (<i>Daphnia magna</i>), 48 h): > 1,000 mg/l Intoxication
Toluene	LC 50 (Water flea (<i>Daphnia magna</i>), 24 h): 240 - 420 mg/l Mortality EC 50 (Water flea (<i>Daphnia magna</i>), 48 h): < 9.83 mg/l Intoxication
Methyl isobutyl ketone	LC 50 (Water flea (<i>Daphnia magna</i>), 24 h): 4,280 mg/l Mortality

Chronic hazards to the aquatic environment:**Fish**

Product:	No data available.
Specified substance(s):	
Titanium dioxide	LC 0 (<i>Coregonus autumnalis migratorius</i> G., 30 d): 3 mg/l experimental result
White mineral oil	NOAEL (<i>Oncorhynchus mykiss</i> , 28 d): >= 1,000 mg/l QSAR
Petroleum distillates	NOAEL (<i>Oncorhynchus mykiss</i> , 28 d): 0.098 mg/l QSAR
Toluene	NOAEL (<i>Pimephales promelas</i> , 32 d): 4 mg/l experimental result
Paraffin	NOAEL (<i>Oncorhynchus mykiss</i> , 28 d): >= 1,000 mg/l QSAR
Aluminum oxide	NOAEL (<i>Pimephales promelas</i> , 28 d): 4.7 mg/l experimental result

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation Product: No data available.

BOD/COD Ratio Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF) Product: No data available.

Specified substance(s):
Toluene Green algae (*Selenastrum capricornutum*), Bioconcentration Factor (BCF): 3,016 (Static)

Partition Coefficient n-octanol / water (log Kow) Product: No data available.

Specified substance(s):
Toluene Log Kow: 2.73

Methyl isobutyl ketone Log Kow: 1.31

Mobility in Soil: No data available.

Other Adverse Effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information**US Federal Regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Benzene	Blood respiratory tract irritation Central nervous system Flammability Cancer Skin Aspiration Eye

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Toluene	1000 lbs.
Methyl isobutyl ketone	5000 lbs.
Benzene	10 lbs.
Methanol	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Toluene	1000 lbs.
Methyl isobutyl ketone	5000 lbs.
Benzene	10 lbs.
Methanol	5000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Calcium Carbonate (Limestone)	500 lbs
Calcium salt	500 lbs
Titanium dioxide	500 lbs
White mineral oil	500 lbs
Petroleum distillates	500 lbs
Toluene	500 lbs
Paraffin	500 lbs
Methyl isobutyl ketone	500 lbs
Aluminum oxide	500 lbs
Crystalline Silica (Quartz)/ Silica Sand	500 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>
Toluene

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u>
Calcium Carbonate (Limestone)
Calcium salt
Titanium dioxide
White mineral oil
Petroleum distillates
Toluene

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Calcium Carbonate (Limestone)
Calcium salt
Titanium dioxide
White mineral oil
Petroleum distillates
Toluene
Crystalline Silica (Quartz)/ Silica Sand
Benzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Calcium Carbonate (Limestone)
Calcium salt
Titanium dioxide
White mineral oil
Petroleum distillates
Toluene

US. Rhode Island RTK

Chemical Identity

Toluene

Other Regulations:

Regulatory VOC (less water and exempt solvent):	57 g/l
VOC Method 310:	2.61 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are

not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing:

One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date: 07/28/2015

Version #: 1.0

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

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SAFETY DATA SHEET

Date Issued: 2/6/15

Page 1 of 5

SECTION 1 – COMPANY and PRODUCT IDENTIFICATION

MANUFACTURER

GARDNER-GIBSON CORPORATION
4161 East 7th Avenue
Tampa, FL 33605

EMERGENCY TELEPHONE NUMBER
1-800-424-9300 CHEMTREC

Product Information
813-248-2101
gardner-gibson.com

Product Class

Acrylic latex sealant used in building construction.

Product Code Number
0338-GA (1 quart)

Trade Name

Leak Stopper Clear Patch

SECTION 2 – HAZARDS IDENTIFICATION

Product Classification: No need for classification according to GHS criteria.

Effects of acute toxicity:

EYES: Direct contact may cause irritation.

SKIN: May cause irritation to sensitive skin or open wounds.

INHALATION: May cause irritation to respiratory passages.

INGESTION: May cause nausea.

Precautions:

Wear suitable protective clothing, gloves and eye protection.

If the product adheres to exposed skin, irritation may occur when the product dries.

Use with local exhaust ventilation.

Do not take internally. Wash hands before eating or drinking.

SECTION 3 – COMPOSITION / INFORMATION on INGREDIENTS

INGREDIENT	Content (By Weight)	TLV PPM	PEL - TWA PPM
2,2,4-Trimethyl-1,3-pentanediol Monoisobutyrate CAS # 25265-77-4	1.0 - 2.0%	N.E.	N.E.
2-Amino-2-methyl-1-propanol CAS # 124-68-5	1.0 - 2.0%	N.E.	N.E.
All nonhazardous ingredients in this waterborne product are trade secret.	96.0 - 98.0%	N.A.	N.A.

There are no ingredients in this product of unknown acute toxicity.

N.E. = Not Established

N.A. = Not Applicable

SAFETY DATA SHEET

Leak Stopper Clear Patch

Page 2 of 5

SECTION 4 – FIRST-AID MEASURES

Inhalation: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. If signs/symptoms of difficulty in breathing continue, get immediate medical attention.

Skin: Rinse skin immediately with plenty of clean water for 5 to 10 minutes. Remove contaminated clothing. If skin irritation occurs get medical advice/attention.

Eye(s): Rinse cautiously with water for several minutes. Remove contact lenses if present and if it is easy to do so. Continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion: If swallowed, do not induce vomiting. If conscious, give 2 to 3 glasses of water and seek medical advice/attention immediately.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical, foam, or water spray

Unusual Fire and Explosion Hazards: None known

Special Fire Fighting Procedures: Water can be used to cool fire-exposed containers. Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Observe all personal protective equipment recommendations described in Section 8. Wipe up or scrape up spilled material and contain for disposal. Final cleaning may require use of hot water and/or detergents. Dispose of saturated absorbent or cleaning materials appropriately.

SECTION 7 – HANDLING and STORAGE

Precautions for safe handling: Keep away from extreme heat. Do not get in eyes, on skin, on clothing. Do not swallow product. Wash thoroughly after handling. Use with adequate ventilation.

Conditions for safe storage: Store in a cool, dry place in the original container. Keep container closed when not in use. Store the product away from strong oxidizing chemicals. Avoid extreme heat. Store above 7 °C (45 °F). Product will freeze below 0 °C (32 °F).

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Use with adequate ventilation.

Skin Protection: Chemical resistant gloves are recommended for prolonged exposure.

Eye Protection: Wear safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: None required.

SAFETY DATA SHEET

Leak Stopper Clear Patch

Page 3 of 5

SECTION 9 – PHYSICAL and CHEMICAL PROPERTIES

Appearance (Physical state, color):	Thick fluid paste, milky-white when wet, dries clear
Odor:	Mild, acrylic-like
Odor Threshold:	No information is available.
pH:	7.5 – 8.5
Melting point:	No data is available.
Initial Boiling Point & Boiling Range:	100 °C to 244 °C (212 °F to 471 °F)
Flash Point:	>94 °C (>201 °F)
Evaporation Rate:	Slower than Ether
Flammability:	Nonflammable
Upper/Lower Flammability Limits:	No data is available.
Vapor Pressure:	17.5 mm Hg @ 20 °C (68 °F)
Vapor Density:	Heavier than air
Density:	1.06 g/cm ³ (8.8 Lbs/gal) 21 °C (70 °F)
Solubility (in water):	Dispersible in water
Partition coefficient (n-octanol/water):	No data is available.
Auto-ignition temperature:	No data is available.
Decomposition temperature:	>250 °C (482 °F)
Viscosity (Brookfield RV, 5 rpm):	300,000 cP ±60,000 @ 21 °C (70 °F)

SECTION 10 – STABILITY and REACTIVITY

Reactivity: No hazardous reactions if stored and handled as prescribed.

Chemical Stability: The product is stable if stored and handled as prescribed.

Hazardous decomposition products: Carbon dioxide, carbon monoxide, and hydrocarbons.

Hazardous polymerization: Will not occur. The product is chemically stable.

SECTION 11 – TOXICOLOGICAL INFORMATION

Primary routes of exposure: Routes of entry for the product into the human body are accidental ingestion, accidental eye contact, and prolonged skin contact. Inhalation of the vapor released from the product as it dries is dependent upon the absence of proper ventilation during use of the product.

Acute Toxicity/Effects:

EYES: Direct contact may cause irritation.

SKIN: May cause irritation to sensitive skin or open wounds.

INHALATION: May cause irritation to respiratory passages.

INGESTION: May cause nausea/gastrointestinal distress.

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

SAFETY DATA SHEET

Leak Stopper Clear Patch

Page 4 of 5

SECTION 11 – TOXICOLOGICAL INFORMATION (continued from page 3)

No human toxicological studies (Oral, Inhalation or Dermal) have been conducted on this compounded product.

No animal toxicological studies (Oral, Inhalation or Dermal) have been conducted on this compounded product.

Chronic Toxicity/Effects:

EYES: No data available.

SKIN: No data available.

INHALATION: No data available.

INGESTION: No data available.

SECTION 12 – ECOLOGICAL INFORMATION

Ecological Fate: * No data available.

Persistence/Degradability: * No data available.

Bioaccumulation Potential: * No data available.

Mobility in Soil: * No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of unused product and/or empty containers in accordance with local, regional, national, and/or international regulations.

Do not discharge into drains/surface waters/groundwater or open ground/soil.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name: Not Regulated by D.O.T.

DOT Hazard Class: None

DOT UN/NA Number: None

Packing Group: None

IMO/IMDG – International Maritime Transport Shipping Name: Not Regulated.

IATA – International Air Transportation Association: Not Regulated.

Do not transport this product on passenger seats or inside the passenger compartment of any vehicle. Transport product in the cargo area of the vehicle and secure it on and under protective cloths or plastic wrap to prevent damage due to accidental spills.

SECTION 15 – REGULATORY INFORMATION

SARA Title III – No substances are contained in this product subject to the reporting requirements of EPCRA Section 313 of the Super Fund Amendments and Reauthorization Act, 40 CFR Part 372.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

California Proposition 65 Chemical Warning (California Health and Safety Code #25249.5 et seq): This product contains chemicals known to the state of California to cause cancer, birth defects or reproductive harm.

SAFETY DATA SHEET

Leak Stopper Clear Patch

Page 5 of 5

SECTION 16 – OTHER INFORMATION

Hazardous Materials Identification System (HMIS)

Health 1	Flammability 0	Physical Hazard 0	Personal Protection Equipment (PPE) B – Safety glasses and gloves
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Legend: 0 = Insignificant 1 = Slight 2 = Moderate 3 = High

Other Precautions: Keep out of the reach of children.
Protect from freezing.

Disclaimer/Statement of Liability:

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to verify the suitability and completeness of such information for a particular use. Gardner-Gibson does not accept liability for any loss or damage that may occur from the use of this information.

Prepared by: Morton Jones
2-6-15
Product # 0338-GA

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MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.4
09/10/2007

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured By: Waterford Plant
260 Hudson River Rd
Waterford NY 12188

Revised: 09/10/2007

Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
CHEMTREC 1-800-424-9300

Chemical Family/Use: Sealant
Formula: Mixture

HMIS

Flammability: 0 Reactivity: 0 Health: 1

NFPA

Flammability: 0 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! May be harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May cause central nervous system depression. May cause adverse reproductive effects. Adverse reproductive effects reported in animals.

Form: Solid Color: White Odor: Ammonia

POTENTIAL HEALTH EFFECTS

INGESTION

May be harmful if swallowed. May cause central nervous system effects. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

SKIN

Skin irritation is possible after contact with the uncured product. Uncured product contact will irritate lips, gums and tongue. May be absorbed through skin and produce effects as listed under "Ingestion".

INHALATION

Causes mild respiratory tract irritation. Applies in uncured state. May also cause other effects as listed under "Ingestion".

EYES

Eye irritation on contact with the uncured product.

MEDICAL CONDITIONS AGGRAVATED

Pre-existing skin or respiratory diseases.

SUBCHRONIC (TARGET ORGAN)

Skin; Central nervous system



Material Safety Data Sheet

Version: 1.4
09/10/2007

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

CHRONIC EFFECTS / CARCINOGENICITY

This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

ROUTES OF EXPOSURE

Inhalation; Dermal; Eyes; Oral.; Absorption through skin.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
A. HAZARDOUS		
DISTILLATES, PETROLEUM, HYDROTREATED	64742-47-8	5 - 10 %
Hexamethyldisilazane	999-97-3	1 - 5 %
Methyl trimethoxysilane	1185-55-3	1 - 5 %
B. NON-HAZARDOUS		
Treated Filler	68611-44-9	10 - 30 %
Polydimethylsiloxane	63148-62-9	10 - 30 %
Methoxy polydimethylsiloxane	68037-58-1	30 - 60 %

4. FIRST AID MEASURES

INGESTION

Do not induce vomiting. If victim is conscious, give 1-3 glasses of water to drink. Never give anything by mouth to an unconscious person. Get medical attention if irritation persists.

SKIN

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. Get medical attention if irritation persists.

INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYES

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.4
09/10/2007

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

NOTE TO PHYSICIAN
None known.

5. FIRE-FIGHTING MEASURES

FLASH POINT: > 93.3 °C; 200 °F
METHOD: estimated
IGNITION TEMPERATURE: Unknown
FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable
FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable
SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE
Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA
All standard extinguishing agents are suitable.

SPECIAL FIRE FIGHTING PROCEDURES
Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Avoid contact with skin and eyes. Keep container tightly closed. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. Product releases methanol during application and curing. Product releases ammonia during application and curing.

STORAGE
Store away from heat, sources of ignition, and incompatibles. Keep out of the reach of children.

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Eyewash stations; Showers; Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

PROTECTIVE GLOVES

Cloth gloves.

EYE AND FACE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

Component	CAS RN	Source	Value
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Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average

OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT - C & F:	Not applicable
VAPOR PRESSURE (20 C) (MM HG):	Not applicable
FREEZING POINT:	Not applicable
MELTING POINT:	Not applicable
PHYSICAL STATE:	Solid
ODOR:	Ammonia
COLOR:	White
EVAPORATION RATE (BUTYL ACETATE=1):	< 1
SPECIFIC GRAVITY (WATER=1):	1.05
DENSITY:	ca. 1.05 g/cm ³
ACID / ALKALINITY (MEQ/G):	Unknown
pH:	Not applicable
VOLATILE ORGANIC CONTENT (VOL):	2.2 %(m)
SOLUBILITY IN WATER (20 C):	Insoluble



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.4
09/10/2007

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

SOLUBILITY IN ORGANIC SOLVENT (STATE OF SOLVENT): PARTIAL IN TOLUENE
VOC EXCL. H2O & EXEMPTS (G/L): 27

10. STABILITY AND REACTIVITY

STABILITY
Stable

HAZARDOUS POLYMERIZATION
Will not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS
Methanol; Carbon dioxide (CO₂); Formaldehyde; Carbon monoxide; Ammonia; Silicon dioxide.

INCOMPATIBILITY (MATERIALS TO AVOID)
None known.

CONDITIONS TO AVOID
Vapor and/or liquid react with water to form ammonia.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL
Remarks: Unknown

ACUTE DERMAL
Remarks: Unknown

ACUTE INHALATION
Remarks: Unknown

OTHER
Contains dibutyltin compound(s) - May impair fertility. May cause harm to unborn child.

SENSITIZATION
No data available

SKIN IRRITATION
No data available

EYE IRRITATION
No data available

MUTAGENICITY
Unknown

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant

OTHER EFFECTS OF OVEREXPOSURE

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

No data available

DISTRIBUTION

No data available

CHEMICAL FATE

No data available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Further Information:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. REGULATORY INFORMATION

Inventories

Canada DSL Inventory	y (Positive listing)
Korea Existing Chemicals Inventory (KECI)	y (Positive listing)
China Inventory of Existing Chemical Substances	y (Positive listing)
Australia Inventory of Chemical Substances (AICS)	y (Positive listing)
Philippines Inventory of Chemicals and Chemical	y (Positive listing)



**GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant**

Substances (PICCS)
EU list of existing chemical substances y (Positive listing)
Canada NDSL Inventory n (Negative listing)
Japan Inventory of Existing & New Chemical Substances (ENCS) n (Negative listing)
TSCA list y (Positive listing)
For inventories that are marked as quantity restricted or special cases, please contact Momentive.

US Regulatory Information

SARA (311,312) HAZARD CLASS
Acute Health Hazard; Chronic Health Hazard

SARA (313) CHEMICALS

Canadian Regulatory Information

WHMIS HAZARD CLASS
D2A VERY TOXIC MATERIALS, D2B TOXIC MATERIALS

Other

SCHDLE B/HTSUS: 3214.10 Mastic Based on Rubber

ECCN: EAR99

CALIFORNIA PROPOSITION 65
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

OTHER

C = ceiling limit NEGL = negligible EST = estimated NF = none found NA = not applicable
UNKN = unknown NE = none established REC = recommended ND = none determined
V = recommended by vendor SKN = skin TS = trade secret R = recommended
MST = mist NT = not tested STEL = short term exposure limit ppm = parts per million
ppb = parts per billion By-product= reaction by-product, TSCA inventory status not required under 40 CFR part 720.30(h-2)., These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.



Material Safety Data Sheet

Version: 1.4
09/10/2007

GE5010 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured By: Waterford Plant
260 Hudson River Rd
Waterford NY 12188

Revised: 09/10/2007

Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
CHEMTREC 1-800-424-9300

Chemical Family/Use: Silicone Rubber
Formula: Mixture

HMIS

Flammability: 0 Reactivity: 0 Health: 1

NFPA

Flammability: 0 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! May be harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May cause central nervous system depression.

Form: Solid Color: Black Odor: Ammonia

POTENTIAL HEALTH EFFECTS

INGESTION

May be harmful if swallowed. May cause central nervous system effects. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

SKIN

Skin irritation is possible after contact with the uncured product. Uncured product contact will irritate lips, gums and tongue. May be absorbed through skin and produce effects as listed under "Ingestion".

INHALATION

Causes mild respiratory tract irritation. Applies in uncured state. May also cause other effects as listed under "Ingestion".

EYES

Eye irritation on contact with the uncured product.

MEDICAL CONDITIONS AGGRAVATED

Pre-existing skin or respiratory diseases.

SUBCHRONIC (TARGET ORGAN)

Skin; Central nervous system



Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

CHRONIC EFFECTS / CARCINOGENICITY

This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

ROUTES OF EXPOSURE

Inhalation; Dermal; Eyes; Oral.; Absorption through skin.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
<u>A. HAZARDOUS</u>		
DISTILLATES, PETROLEUM, HYDROTREATED	64742-47-8	1 - 5 %
Hexamethyldisilazane	999-97-3	1 - 5 %
Methyl trimethoxysilane	1185-55-3	1 - 5 %
<u>B. NON-HAZARDOUS</u>		
Methoxy polydimethylsiloxane	68037-58-1	60 - 90 %
Polydimethylsiloxane	63148-62-9	10 - 30 %
Treated Filler	68611-44-9	10 - 30 %

4. FIRST AID MEASURES

INGESTION

Do not induce vomiting. If victim is conscious, give 1-3 glasses of water to drink. Never give anything by mouth to an unconscious person. Get medical attention if irritation persists.

SKIN

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. Get medical attention if irritation persists.

INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYES

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

NOTE TO PHYSICIAN
None known.

5. FIRE-FIGHTING MEASURES

FLASH POINT: > 93 °C; 199 °F
METHOD: estimated
IGNITION TEMPERATURE: Unknown
FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable
FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable

SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE
Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA
All standard extinguishing agents are suitable.

SPECIAL FIRE FIGHTING PROCEDURES
Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Avoid contact with skin and eyes. Keep container tightly closed. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. Product releases methanol during application and curing. Product releases ammonia during application and curing.

STORAGE
Store away from heat, sources of ignition, and incompatibles. Keep out of the reach of children.

**GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Eyewash stations; Showers; Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

PROTECTIVE GLOVES

Cloth gloves.

EYE AND FACE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

Component	CAS RN	Source	Value
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Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average

OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT - C & F:	Not applicable
VAPOR PRESSURE (20 C) (MM HG):	Not applicable
FREEZING POINT:	Not applicable
MELTING POINT:	Not applicable
PHYSICAL STATE:	Solid
ODOR:	Ammonia
COLOR:	Black
EVAPORATION RATE (BUTYL ACETATE=1):	< 1
SPECIFIC GRAVITY (WATER=1):	1.05
DENSITY:	ca. 1.048 g/cm ³
ACID / ALKALINITY (MEQ/G):	Unknown
pH:	Not applicable
VOLATILE ORGANIC CONTENT (VOL):	2.2 %(m)
SOLUBILITY IN WATER (20 C):	Insoluble



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

SOLUBILITY IN ORGANIC SOLVENT (STATE OF SOLVENT): PARTIAL IN TOLUENE
VOC EXCL. H2O & EXEMPTS (G/L): 27

10. STABILITY AND REACTIVITY

STABILITY

Stable

HAZARDOUS POLYMERIZATION

Will not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

Methanol; Carbon dioxide (CO₂); Carbon monoxide; Ammonia; Silicon dioxide.

INCOMPATIBILITY (MATERIALS TO AVOID)

None known.

CONDITIONS TO AVOID

Vapor and/or liquid react with water to form ammonia.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL

Remarks: Unknown

ACUTE DERMAL

Remarks: Unknown

ACUTE INHALATION

Remarks: Unknown

OTHER

None.

SENSITIZATION

No data available

SKIN IRRITATION

No data available

EYE IRRITATION

No data available

MUTAGENICITY

Unknown

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant

OTHER EFFECTS OF OVEREXPOSURE

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive., Methanol released during curing.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

No data available

DISTRIBUTION

No data available

CHEMICAL FATE

No data available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Further Information:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. REGULATORY INFORMATION

Inventories

Canada DSL Inventory	y (Positive listing)
Korea Existing Chemicals Inventory (KECI)	y (Positive listing)
China Inventory of Existing Chemical Substances	y (Positive listing)
Australia Inventory of Chemical Substances (AICS)	y (Positive listing)
Philippines Inventory of Chemicals and Chemical	y (Positive listing)



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg) Silicone Rubber Sealant

Substances (PICCS)

EU list of existing chemical substances y (Positive listing)

Canada NDSL Inventory n (Negative listing)

Japan Inventory of Existing & New Chemical Substances (ENCS) n (Negative listing)

TSCA list y (Positive listing) Listed on TSCA

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

US Regulatory Information

SARA (311,312) HAZARD CLASS

Acute Health Hazard; Chronic Health Hazard

SARA (313) CHEMICALS

58-36-6, 10, 10'-oxybisphenoxarsine

Canadian Regulatory Information

WHMIS HAZARD CLASS

D2A VERY TOXIC MATERIALS, D2B TOXIC MATERIALS

Other

SCHDLE B/HTSUS: 3214.10.00.10 Mastic based on rubber

ECCN: EAR99

CALIFORNIA PROPOSITION 65

WARNING! This product contains a chemical known in the State of California to cause cancer. 108-88-3, Toluene.

16. OTHER INFORMATION

OTHER

C = ceiling limit applicable UNKN = unknown determined V = recommended by vendor recommended MST = mist NT = not tested STEL = short term exposure limit ppm = parts per million ppb = parts per billion By-product= reaction by-product, TSCA inventory status not required under 40 CFR part 720.30(h-2)., These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

NEGL = negligible EST = estimated
NF = none found NA = not
REC = recommended ND = none
TS = trade secret R =



MOMENTIVE
performance materials

Material Safety Data Sheet

Version: 1.3
09/10/2007

GE5030 12C-Crtrg (0.730 Lbs-0.331 Kg)
Silicone Rubber Sealant



Safety Data Sheet
Commercial Grade Mortar Repair Tube
© Akona Manufacturing LLC.
Version 1.0

Akona Manufacturing, LLC.
2025 Centre Point Boulevard, Suite 300
Mendota Heights, MN 55120-1221

Emergency Telephone Number: 651-688-9116
Information Telephone Number: 651-905-8137

Revision Date
May 2015

Section 1: Product Identification

Product Type: Sealant & Adhesive

Akona Product Name:

Akona Commercial Grade Mortar Repair

Section 2: Hazard Identification

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance: Gray paste
Physical State: Textured paste
Odor: Mild acrylic

Section 3: Hazardous Ingredients/Composition

Chemical Name	CAS No	Weight-%
Calcium Carbonate	1317-65-3	<40
Acrylic Emulsion	MIXTURE	<30
Crystalline silica	14808-60-7	<10
Benzoate Ester	Proprietary	<7
Titanium dioxide	13463-67-7	<1.0
Non-hazardous Ingredients*	Proprietary	<15
Ammonium Hydroxide	7664-41-7	<0.12
Carbon Black	1333-86-4	<0.05
Petroleum Hydrocarbon	64742-48-9	<0.75

* Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). (Calcium Carbonate, Titanium Dioxide, Carbon Black and Silica) Inhalation of particulates unlikely due to product's physical state. (Carbon Black) May be present in colors other than White.



Section 4: First Aid Measures

First Aid Measures

General Advice:

Provide this SDS to medical personnel for treatment.

Eye Contact:

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice.

Skin Contact:

Wash with soap and water for at least 15 minutes. Get medical attention if symptoms persist. Remove and wash contaminated clothing.

Inhalation:

Remove to fresh air if breathing is difficult, leave area to obtain fresh air. If breathing remains difficult, get medical attention.

Ingestion:

Do not induce vomiting unless directed by medical personnel. If vomiting occurs, lean patient forward to maintain an open airway and prevent aspiration. Get immediate medical attention.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms:

Prolonged or repeated skin contact may result in dermatitis (red, dry skin). Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness and discomfort. Irritating to mouth, throat, and stomach if ingested. May cause gastrointestinal irritation, nausea, diarrhea, and vomiting. Overexposure to vapors during application and curing may mildly irritate respiratory tract and result in coughing and sneezing.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians:

Provide general supportive measures and treat symptomatically.
Medical Conditions Aggravated By Exposure: Dermatitis or other pre-existing skin conditions may be aggravated by overexposure to this product.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media:

Carbon dioxide (CO₂). Dry chemical. Water spray (fog). Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: Not determined.



Specific Hazards Arising from the Chemical:

Product is combustible & may ignite if exposed to high temperature or direct flame.

Hazardous combustion products:

Carbon, titanium & iron oxides, depending upon formulation.

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear protective clothing as described in Section 8 of this safety data sheet.

Other Information:

Small Spills: 1 drum or less – Level D Equipment (gloves, chemical resistant apron, boots and eye protection).

Large Spills: Rubber gloves, rubber boots, face shield & Tyvek suit as a minimum. Minimum level of PPE for releases in which the oxygen level is < 19.5% or is unknown, should be Level B: triple gloves (rubber gloves & nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing & boots, hard hat & self-contained breathing apparatus.

For Emergency Responders: Restrict access to spill area.

Environmental precautions:

Minimize use of water to prevent environmental contamination. Prevent spill or rinse from contaminating storm drains, sewers, soil or groundwater. Do not allow discharge containing this material to enter streams, ponds, estuaries, oceans or other waters unless in accordance w/ requirements of National Pollutant Discharge Elimination System (NPDES) permit & permitting authority has been notified in writing prior to discharge. Do not allow discharge containing this material to enter sewer systems w/o previously notifying local sewage treatment plant authority. For information, contact State Water Board or EPA Regional Office.

Other: U.S. regulations may require reporting of spills of this material reaching surface waters if sheen is formed.

Methods and Material for Containment and Cleaning up



Methods for Containment:

Prevent further leakage or spillage if safe to do so. Use absorbent material to contain spill.

Methods for Cleaning Up:

Sweep up absorbed material and shovel into suitable containers for disposal. Wash area with soap and water. For waste disposal, see section 13 of the SDS.

Section 7: Handling and Storage

Precautions for Safe Handling

Advice on Safe Handling:

Avoid breathing vapors. Use only with adequate ventilation. Open windows & doors to ensure fresh air cross-ventilation during application and curing. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes or clothing. While handling product keep out of reach of children and pets. Do not eat or drink while handling this material. See section 6 of this SDS for clean up instructions.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions:

Keep tightly closed in a dry and cool place. Close container after each use. Store containers away from excessive heat & freezing. Do not store at temperatures above 120°F (49°C). Protect from direct sunlight. Store away from incompatible materials. To maximize shelf life, store at temperatures below 80°F (26°C).

Incompatible Materials:

Strong oxidizing agents. Strong bases.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

Exposure guidelines / protective equipment are for routine handling and accidental spills

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Carbonate 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust



Crystalline silica 14808-60-7	TWA: 0.025 mg/m ³ respirable fraction	(vacated) TWA: 0.1 mg/m ³ respirable dust : (30)/(%SiO ₂ + 2) mg/m ³ TWA total dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
Ammonium Hydroxide 7664-41-7	STEL: 35 ppm TWA: 25 ppm	TWA: 50 ppm TWA: 35 mg/m ³ (vacated) STEL: 35 ppm (vacated) STEL: 27 mg/m ³	IDLH: 300 ppm TWA: 25 ppm TWA: 18 mg/m ³ STEL: 35 ppm STEL: 27 mg/m ³
Carbon Black 1333-86-4	TWA: 3 mg/m ³ inhalable fraction	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
Petroleum Hydrocarbon 64742-48-9	ACGIH TWA: 5 mg/m ³ ; ACGIH STEL: 10 mg/m ³	-	-

Appropriate Engineering Controls

Engineering Controls:

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection:

Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations & standards.



Skin and Body Protection:

Skin: Wear chemical impervious gloves (eg: Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations and standards.

Body: Use protection appropriate for task (eg: lab coat, coveralls, Tyvek suit). If necessary, refer to OSHA Technical Manual (Sec. VII: Personal Protective Equipment) or appropriate Standards of Canada. Use foot protection, as described in appropriate regulations and standards.

Respiratory Protection:

If mists or sprays are created, use appropriate respiratory protection. Oxygen levels below 19.5% considered IDLH by OSHA. In such instances, use full-facepiece pressure demand SCBA or a full facepiece, supplied air respirator w/ auxillary self-contained air supply.

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State: Textured paste
Appearance: Gray paste
Color: Gray
Odor: Mild acrylic
Odor Threshold: Not determined

<u>Property</u>	<u>Note: The information below is not intended for use in preparing product specifications</u>	<u>Remarks - Method</u>
pH:	7.0-9.0	
Melting Point/Freezing Point:	< 0°C / < 32°F	
Boiling Point/Boiling Range:	Not established	
Flash Point:	> 93.33°C / > 200°F	
Evaporation Rate:	Not determined	
Flammability (Solid, Gas):	Not determined	
Upper Flammability Limits:	Unknown	
Lower Flammability Limits:	Unknown	
Vapor Pressure:	Not established	
Vapor Density:	Heavier than air	
Relative Density (Specific Gravity):	~1.50 – 2.00	@ 25°C (77°F)
Water Solubility:	Appreciable before cure	



Solubility in Other Solvents:	Not determined
Partition Coefficient:	Not determined
Autoignition Temperature:	Unknown
Decomposition Temperature:	Not determined
Kinematic Viscosity:	Not determined
Dynamic Viscosity:	Not determined
Explosive Properties:	Not determined
Oxidizing Properties:	Not determined
VOC Content (%):	<1.5%
VOC Content:	<25 g/L

Section 10: Stability and Reactivity

Reactivity

Cures upon contact with air.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to avoid

Incompatible Materials. Excessive heat or cold.

Incompatible Materials

Strong oxidizing agents. Strong bases.

Hazardous Decomposition Products

Thermal decomposition can generate irritating dust, fumes and toxic gases (carbon, titanium, and iron oxides, depending upon formulation).

Section 11: Toxicological Information

Information on Likely Routes of Exposure

Product Information

Eye Contact:

Eye contact may result in tearing, redness & pain.

Skin Contact:

Prolonged and frequent contact may cause redness and irritation. Repeated skin contact may cause dermatitis.



Inhalation:

Overexposure to vapors during application & curing may mildly irritate respiratory tract and result in coughing & sneezing.

Ingestion:

May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Crystalline silica 14808-60-7	= 500 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat) -	-	-
Ammonium Hydroxide 7664-41-7	= 350 mg/kg (Rat)	-	= 5.1 mg/L (Rat) 1 h = 2000 ppm (Rat) 4 h
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Petroleum Hydrocarbon 64742-48-9	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	-

Information on Physical, Chemical and Toxicological Effects

Symptoms:

Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Sensitization:

Not known to be human skin or respiratory sensitizers.

Carcinogenicity:

The table below indicates whether each agency has listed any ingredient as a carcinogen. Titanium dioxide is a possible carcinogen when it appears as a respirable dust. Carbon black is a possible carcinogen when it appears as a respirable dust. Crystalline Silica is considered to be a human carcinogen when in respirable form (dust / powder). Trace residual Formaldehyde present in base emulsion viewed as possible cancer hazard.



Chemical Name	ACGIH	IARC	NTP	OSHA
Crystalline silica 14808-60-7	A2	Group 1	Known	X
Titanium dioxide 13463-67-7		Group 2B		X
Carbon Black 1333-86-4	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Target Organ Effects:

Acute: Eyes & Skin.

Chronic: Skin.

Numerical Measures of Toxicity

Not determined

Section 12: Ecological Information

Ecotoxicity

PRACTICES SHOULD BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

Product not tested for aquatic or animal toxicity. Release of product to terrestrial, atmospheric & aquatic environments should be avoided.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ammonium Hydroxide 7664-41-7		0.44: 96 h Cyprinus carpio mg/L LC50 0.26 - 4.6: 96 h Lepomis macrochirus mg/L LC50 1.17: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.73 - 2.35: 96 h Pimephales promelas mg/L LC50 5.9: 96 h Pimephales promelas		25.4: 48 h Daphnia magna mg/L LC50



		mg/L LC50 static 1.5: 96 h Poecilia reticulata mg/L LC50 1.19: 96 h Poecilia reticulata mg/L LC50 static		
Carbon Black 1333-86-4				5600: 24 h Daphnia magna mg/L EC50
Petroleum Hydrocarbon 64742-48-9		2200: 96 h Pimephales promelas mg/L LC50		2.6: 96 h Chaetogammarus marinus mg/L LC50

Persistence and Degradability

Not tested for persistence & biodegradability

Bioaccumulation

Not tested for bio-accumulation potential

Mobility

Not tested for mobility in soil

Chemical Name	Partition Coefficient
Ammonium Hydroxide 7664-41-7	-1.14

Other Adverse Effects

Environmental Exposure Controls: Should be maintained so as to prevent release to the environment (atmospheric release, release to waterways & spills).

Ozone

Not expected to produce any ozone depletion

Section 13: Disposal Considerations

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.



US EPA Waste Number
Not applicable.

Section 14: Transportation

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated
IATA Not regulated
IMDG Not regulated

Section 15: Regulatory Information

International Inventories

TSCA Listed
DSL Listed
NDSL Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium Hydroxide 7664-41-7	100 lb.	100 lb.	RQ 100 lb final RQ RQ 45.4 kg final RQ



Safety Data Sheet
Commercial Grade Mortar Repair Tube
 © Akona Manufacturing LLC.
 Version 1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 – Threshold Values %
Ammonium Hydroxide 7664-41-7	7664-41-7	<0.12	1.0

CWA (Clean Water Act)

Component	CWA – Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants	CWA – Hazardous Substances
Ammonium Hydroxide 7664-41-7 (<0.12)	100 lb.			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Crystalline silica - 14808-60-7	Carcinogen
Titanium dioxide - 13463-67-7	Carcinogen
Carbon Black - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Calcium Carbonate 1317-65-3	X	X	X
Crystalline silica 14808-60-7	X	X	X
Titanium dioxide 13463-67-7	X	X	X
Ammonium Hydroxide 7664-41-7	X	X	X
Carbon Black	X	X	X



1333-86-4

Section 16: Other Information

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	1	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	1	0	Not determined


Additional information on the products is available at. www.akonallc.com

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products. Before using any product, read its label and safety data sheet.

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	<h1>Safety Data Sheet</h1>	<p>24 Hour Emergency Phone Numbers:</p> <p>Medical/Poison Control: In U.S.: Call 1-800-222-1222 Outside U.S.: Call your local poison control center</p> <p>Transportation/National Response Center: 1-800-535-5053 1-352-323-3500</p> <p>NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.</p>
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IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

1. Identification

This Material Safety Data Sheet is available in American Spanish upon request.
 Los Datos de Seguridad del Producto pueden obtenerse en Espanol si lo requiere.

Product Name:	3.0 Kitchen, Bath & Plumbing Sealant - Crystal Clear	Revision Date:	5/8/2015
Product UPC Number:	00795	Supersedes Date:	6/25/2012
Product Use/Class:	Caulking Compound	SDS No:	00010079001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non-emergency matters)		
Preparer:	Regulatory Department		

2. Hazards Identification

EMERGENCY OVERVIEW: Under normal use conditions, this product is not expected to cause adverse health effects. High concentration of vapors may cause irritation to eyes and respiratory system.

GHS Classification
 Eye Irrit. 2, Skin Irrit. 2

Symbol(s) of Product



Signal Word
 Warning

GHS HAZARD STATEMENTS

Skin Irritation, category 2 H315 Causes skin irritation.
 Eye Irritation, category 2 H319 Causes serious eye irritation.

ABEL PRECAUTIONARY STATEMENTS

Wear protective gloves/protective clothing/eye protection/face protection.
 P352 IF ON SKIN: Wash with plenty of water/...
 P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P313 If eye irritation persists: Get medical advice/attention.
 P362 Take off contaminated clothing.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Proprietary Phthalate Esters	Proprietary	25-50	GHS07	H332
Cyclotetrasiloxane, octamethyl-, reaction prods. with silica	68583-49-3	2.5-10	GHS07	H315-319-335
3-(trimethoxysilyl)propylamine		1.0-2.5	GHS07	H315-319
Organosilane Ester	2768-02-7	1.0-2.5	GHS02-GHS07	H225-332
Proprietary Phthalate Esters	Proprietary	1.0-2.5	GHS06	H331
Silica, amorphous	7631-86-9	1.0-2.5	GHS07	H332

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Material is not likely to present an inhalation hazard at ambient conditions. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Wash thoroughly after handling.

STORAGE: Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Store away from caustics and oxidizers.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Proprietary Phthalate Esters	N.E.	N.E.	N.E.	N.E.
Cyclotetrasiloxane, octamethyl-, reaction prods. with silica	N.E.	N.E.	N.E.	N.E.
3-(trimethoxysilyl)propylamine	N.E.	N.E.	N.E.	N.E.
Organosilane Ester	N.E.	N.E.	N.E.	N.E.
Proprietary Phthalate Esters	N.E.	N.E.	N.E.	N.E.
Silica, amorphous	N.E.	N.E.	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
 Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required.



SKIN PROTECTION: Wear nitrile or neoprene gloves. Natural rubber, butyl rubber and polyvinyl chloride gloves are not suitable protection against phthalates such as diisodecyl phthalate and diisononyl phthalate; neoprene is recommended.



EYE PROTECTION: Goggles or safety glasses with side shields.



OTHER PROTECTIVE EQUIPMENT: Not required under normal use.



HYGIENIC PRACTICES: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	Clear	Physical State:	Paste
Odor:	Slight	Odor Threshold:	Not Established
Density, g/cm3:	1.03 - 1.04	pH:	Not Applicable
Freeze Point, °C:	Not Established	Viscosity (mPa.s):	Not Established
Solubility in Water:	Not Established	Partition Coeff., n-octanol/water:	Not Established
Decomposition Temperature, °C:	Not Established	Explosive Limits, %:	N.I. - N.I.
Boiling Range, °C:	N.I. - N.I.	Auto-Ignition Temperature, °C	Not Established
Minimum Flash Point, °C:	93.3	Vapor Pressure, mmHg:	No Information
Evaporation Rate:	Slower Than n-Butyl Acetate	Flash Method:	Seta Closed Cup
Vapor Density:	Heavier Than Air		
Combustibility:	Does not Support Combustion		

(See "Other information" Section for abbreviation legend)
 (If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Excessive heat and freezing.

INCOMPATIBILITY: Incompatible with strong bases and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal decomposition products, i.e., COx, NOx.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Under normal use conditions, this product is not expected to cause adverse health effects. During application and cure, this product releases methanol. Methanol may affect the brain or nervous system causing dizziness, headache or nausea. Inhalation of vapors in high concentration may cause mild irritation of respiratory system (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Prolonged or repeated contact with skin may cause mild irritation.

EFFECT OF OVEREXPOSURE - EYE CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Inhalation, Skin Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
68515-49-1	Proprietary Phthalate Esters	>60000 mg/kg Rat	16000 mg/kg Rabbit	>12.54 mg/L Rat
68583-49-3	Cyclotetrasiloxane, octamethyl-, reaction prods. with silica	>5000 mg/kg Rat	N.I.	N.I.
13822-56-5	3-(trimethoxysilyl)propylamine	2968 mg/kg Rat	11292 mg/kg Rabbit	N.I.
2768-02-7	Organosilane Ester	11000 mg/kg Rat	3259.2 mg/kg Rabbit	>20 mg/L
68515-48-0	Proprietary Phthalate Esters	2550 mg/kg Rat	>3160 mg/kg Rabbit	> 4.4 mg/L Rat
7631-86-9	Silica, amorphous	>3300 mg/kg Rat	>5000 mg/kg Rabbit	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL METHOD: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape

up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT Proper Shipping Name:	Not Regulated.	Hazard SubClass:	N.A.
DOT Technical Name:	N.A.	DOT UN/NA Number:	N.A.
DOT Hazard Class:	N.A.		
Packing Group:	N.A.		

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA12(b) components exist in this product in concentrations at or above their thresholds.

CALIFORNIA PROPOSITION 65 CARCINOGENS

This product does not contain any chemicals known to the State of California to cause cancer.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

WARNING: This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

International Regulations: As follows -

CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class Consumer Commodity.

16. Other InformationRevision Date: 5/8/2015 Supersedes Date: 6/25/2012

Reason for revision: HazCom2012/GHS Conversion

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	1	Flammability:	1	Reactivity:	0	Personal Protection:	X
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VOC Less Water Less Exempt, g/L:24.7

VOC, Material, g/L:25

VOC as Defined by California Consumer Product Regulation, Wt/Wt%:2.3

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02



GHS06




GHS07



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

	<h1>Safety Data Sheet</h1>	<p>24 Hour Emergency Phone Numbers:</p> <p>Medical/Poison Control: In U.S.: Call 1-800-222-1222 Outside U.S.: Call your local poison control center</p> <p>Transportation/National Response Center: 1-800-535-5053 1-352-323-3500</p> <p>NOTE: The National ResponseCenter emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.</p>
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IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

1. Identification

This Material Safety Data Sheet is available in American Spanish upon request.
 Los Datos de Seguridad del Producto pueden obtenerse en Espanol si lo requiere.

Product Name:	100% Silicone Window & Door Clear	Revision Date:	5/19/2015
Product UPC Number:	08641	Supercedes Date:	No Information
Product Use/Class:	Caulking Compound	SDS No:	00008687001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non-emergency matters)		
Preparer:	Regulatory Department		

2. Hazards Identification

EMERGENCY OVERVIEW: Under normal use conditions, this product is not expected to cause adverse health effects. High concentration of vapors may cause irritation to eyes and respiratory system.

GHS Classification
 Not a hazardous substance or mixture.

Symbol(s) of Product
 Not a hazardous substance or mixture.

Signal Word
 Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Hydrotreated middle distillate	64742-46-7	10-25	GHS06	H331

Silica, amorphous
 Silanetriol, methyl-, triaceta

7631-86-9
 4253-34-3

2.5-10 GHS07
 2.5-10 GHS07

H332
 H302-312-315-319-332

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Material is not likely to present an inhalation hazard at ambient conditions. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Wash thoroughly after handling. Remove contact lenses before using. Do not handle contact lenses until all sealant has been cleaned from fingertips, nails and cuticles. Residual sealant may transfer to contact lenses and cause severe eye irritation.

STORAGE: Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Store away from caustics and oxidizers.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Hydrotreated middle distillate	N.E.	N.E.	N.E.	N.E.
Silica, amorphous	N.E.	N.E.	N.E.	N.E.
Silanetriol, methyl-, triaceta	N.E.	N.E.	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection**RESPIRATORY PROTECTION:** No personal respiratory protective equipment normally required.**SKIN PROTECTION:** Wear nitrile or neoprene gloves.**EYE PROTECTION:** Goggles or safety glasses with side shields.**OTHER PROTECTIVE EQUIPMENT:** Not required under normal use.**HYGIENIC PRACTICES:** Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.**9. Physical and Chemical Properties**

Appearance:	Clear	Physical State:	No Information
Odor:	Acetic Acid	Odor Threshold:	Not Established
Density, g/cm³:	0.96 - 0.96	pH:	Not Established
Freeze Point, °C:	Not Established	Viscosity (mPa.s):	Not Established
Solubility in Water:	Not Established	Partition Coeff., n-octanol/water:	Not Established
Decomposition Temperature, °C:	Not Established	Explosive Limits, %:	N.I. - N.I.
Boiling Range, °C:	N.I. - N.I.	Auto-Ignition Temperature, °C	Not Established
Minimum Flash Point, °C:	93.3	Vapor Pressure, mmHg:	No Information
Evaporation Rate:	Slower Than n-Butyl Acetate	Flash Method:	Seta Closed Cup
Vapor Density:	Heavier Than Air		
Combustibility:	Does not Support Combustion		

(See "Other information" Section for abbreviation legend)

(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity**STABILITY:** Stable under recommended storage conditions.**CONDITIONS TO AVOID:** Oxidizing agents. Excessive heat and freezing.**INCOMPATIBILITY:** Incompatible with strong bases and oxidizing agents.**HAZARDOUS DECOMPOSITION PRODUCTS:** Normal decomposition products, i.e., CO_x, NO_x.**11. Toxicological Information****EFFECT OF OVEREXPOSURE - INHALATION:** Under normal use conditions, this product is not expected to cause adverse health effects. During application and cure, this product releases methanol. During application and cure, this product releases acetic acid. Inhalation of vapors in high concentration may cause mild irritation of respiratory system (nose, mouth, mucous membranes).**EFFECT OF OVEREXPOSURE - SKIN CONTACT:** Under normal use conditions, this product is not expected to cause adverse health effects. Prolonged or repeated contact with skin may cause mild irritation.**EFFECT OF OVEREXPOSURE - EYE CONTACT:** Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation.**EFFECT OF OVEREXPOSURE - INGESTION:** Under normal use conditions, this product is not expected to cause adverse health

effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however ingestion of large amounts may cause injury. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Inhalation, Skin Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
64742-46-7	Hydrotreated middle distillate	7400 mg/kg Rat	>2000 mg/kg Rabbit	4.6 mg/L Rat
7631-86-9	Silica, amorphous	>3300 mg/kg Rat	>5000 mg/kg Rabbit	>20 mg/L
4253-34-3	Silanetriol, methyl-, triaceta	1602 mg/kg Rat	1060 mg/kg Rabbit	11.6 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL METHOD: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT Proper Shipping Name:	Not Regulated	Hazard SubClass:	N.A.
DOT Technical Name:	N.A.	DOT UN/NA Number:	N.A.
DOT Hazard Class:	N.A.		
Packing Group:	N.A.		

15. Regulatory Information

U.S. Federal Regulations:

GERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.



MATERIAL SAFETY DATA SHEET

Page 1 of 6

DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT

1. Product And Company Identification	
Supplier HENRY COMPANY 999 N. Sepulveda Blvd., Suite 800 El Segundo, CA 90245-2716 Company Contact: Technical Services Telephone Number: (800) 486-1278 Web Site: www.henry.com www.bakor.com	Manufacturer HENRY COMPANY 999 N. Sepulveda Blvd., Suite 800 El Segundo, CA 90245-2716 Company Contact: Technical Services Telephone Number: (800) 486-1278 Web Site: www.henry.com www.bakor.com
Supplier Emergency Contacts & Phone Number CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666	Manufacturer Emergency Contacts & Phone Number CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666
Issue Date: 10/24/2011	
Product Name: DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT	
Product Code: DI150	

2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent Of Total Weight
petroleum asphalt	8052-42-4		30 - 50
attapulgit	12174-11-7		1 - 5
Bentonite	1302-78-9		1 - 5
cellulose fiber	9004-34-6		5 - 10
stoddard solvent	8052-41-3		5 - 15
water	7732-18-5		20 - 40
Substances in this product have been pre-registered in accordance with the REACH Regulation - (EC) No. 1907/2006. See Section 15 for additional information. Stoddard Solvent (general CAS# 8052-41-3) is more specifically identified by CAS# 64742-88-7.			

EMERGENCY OVERVIEW	
CAUTION! Combustible Liquid. Central nervous system depressant. Vapor may cause light-headedness, headache, nausea, loss of coordination and respiratory tract irritation. Causes skin irritation.	
Appearance/Odor: Black liquid, strong petroleum solvent odor	

3. Hazards Identification
Primary Routes(s) Of Entry Inhalation
Eye Hazards May cause eye irritation (burning, tearing, redness or swelling).
Skin Hazards May cause skin irritation and contact dermatitis upon prolonged contact.



MATERIAL SAFETY DATA SHEET

Page 2 of 6

DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT

3. Hazards Identification - Continued

Ingestion Hazards

May be harmful if swallowed. May cause gastric distress, vomiting and diarrhea.

Inhalation Hazards

Exposure to vapors may cause respiratory tract irritation. Inhalation of vapors or mists may cause central nervous depression, light-headedness, headache, nausea and loss of coordination.

:/Carcinogenicity Effects

Some of the ingredients of this product comprising over 0.1% are classified as carcinogenic according to OSHA, the National Toxicology Program (NTP), International Agency for Research on Cancer (IARC) or the American Conference of Environmental Industrial Hygienists (ACGIH).

4. First Aid Measures

Eye

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Skin

Remove contaminated clothing and shoes. Wash affected areas with soap and water.

Ingestion

Get medical attention immediately. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious victim. Call a physician or poison control center immediately.

Inhalation

Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.

Note To Physician

Aspiration of liquid into the lungs during swallowing or vomiting can cause lung inflammation, serious lung damage and even death from chemical pneumonitis.

5. Fire Fighting Measures

Flash Point: 105 °F

Flash Point Method: Setaflash

Lower Explosive Limit: 0.9

Upper Explosive Limit: 6.0

Fire And Explosion Hazards

Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Extinguishing Media

Chemical foam, carbon dioxide (CO₂), water fog or dry chemical.

Fire Fighting Instructions

Firefighters should wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

Collect and dispose in accordance with applicable regulations.

7. Handling And Storage

Handling And Storage Precautions

Keep containers tightly closed. Store in a cool, dry, well-ventilated area. Do not handle or store near strong oxidants or strong acids. Use only with adequate ventilation.

**DI150 - WET OR DRY SURFACE FIBERED PLASTIC
ROOF CEMENT****8. Exposure Controls/Personal Protection****Engineering Controls**

Use with adequate general and local exhaust ventilation. When used outdoors, stay well away from building air intakes or close and seal the intakes to prevent product from entering building.

Eye/Face Protection

Safety glasses with side shields or goggles recommended.

Skin Protection

Use with chemical-protective gloves to prevent skin contact.

Respiratory Protection

This product is an encapsulated mixture which reduces the likelihood of exposure to hazardous particulates. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

The level of respiratory protection needed should be based on the evaluation of chemical exposures by a health or safety professional. If required, use a NIOSH-approved air purifying respirator with organic vapor cartridge and particulate filter or supplied air respirator.

Occupational Exposure Limits for individual ingredients (if available) are listed below.

Ingredient(s) - Exposure Limits

petroleum asphalt

ACGIH TLV-TWA 0.5 mg/m³ (inhalable fraction, as benzene-soluble aerosol)

bentonite

ACGIH TLV-TWA 10 mg/m³ (total dust)

ACGIH TLV-TWA 3 mg/m³ (respirable dust)

OSHA PEL-TWA 15 mg/m³ (total dust)

OSHA PEL-TWA 5 mg/m³ (respirable dust)

cellulose fiber

ACGIH TLV-TWA 10 mg/m³

stoddard solvent

ACGIH TLV-TWA 100 ppm

OSHA PEL-TWA 500 ppm

9. Physical And Chemical Properties**Appearance**

Black Liquid

Odor

Strong Petroleum Solvent Odor

Chemical Type: Mixture

Physical State: Liquid

Boiling Point: 310-400 °F

Specific Gravity: 1.01

Vapor Pressure: 2@68°F

Vapor Density: >1

pH Factor: not applicable

Solubility: insoluble in water

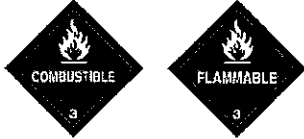
Evaporation Rate: <1

DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT

<p>10. Stability And Reactivity</p> <p>Stability: Stable Hazardous Polymerization: Will not occur</p> <p><u>Incompatible Materials</u> Avoid contact with strong oxidizing agents and acids.</p> <p><u>Hazardous Decomposition Products</u> Toxic and irritating gases, vapors or fumes, carbon monoxide (CO), carbon dioxide (CO2).</p>
<p>11. Toxicological Information</p> <p><u>Chronic/Carcinogenicity</u> None of the ingredients present in this product, at concentrations equal to or greater than 0.1%, have been determined to be carcinogenic by IARC, NTP, OSHA, or ACGIH.</p> <p><u>Miscellaneous Toxicological Information</u> Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.</p> <p><u>Ingredient(s) - Toxicological Data</u> cellulose fiber LD50 (oral, rat): >2000 mg/kg LC50 (rat): >5800 mg/m3 (4-hour exposure) stoddard solvent oral-rat LD50: >5000 mg/kg dermal-rabbit LD50: >3000 mg/kg inhal-rat LC50: >5500 mg/m3 (880 ppm) inhal-rat LC50: >1300 ppm</p>
<p>12. Ecological Information</p> <p>No specific information available.</p>
<p>13. Disposal Considerations</p> <p>Dispose in accordance with applicable federal, state and local government regulations.</p>
<p>14. Transport Information</p> <p>Ground or Water Domestic Voyage</p> <p>Not restricted if shipped in containers <450L (119 gallons) Restricted if shipped in containers >450L (119 gallons)</p> <p>US NA1993, Combustible liquid, n.o.s., (Petroleum Distillates mixture), Combustible liquid, III Canada UN1999, Tars liquid, 3, III</p> <p>Unless departs >flash point:</p> <p>Both UN3256, Elevated Temperature liquid, flammable, n.o.s., (Petroleum Distillates mixture), 3, III</p> <p>IMDG IMDG Code 2.3.2.5 - exempted from marking, labeling & testing of packages</p> <p>IATA UN1999, Tars liquid, 3, III</p>

DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT

DOT (Pictograms)



15. Regulatory Information

U.S. Regulatory Information

Asphalt may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm.

Ingredient(s) - State Regulations

petroleum asphalt

- New Jersey - Workplace Hazard
- Pennsylvania - Workplace Hazard
- Massachusetts - Hazardous Substance
- New York City - Hazardous Substance

attapulgate

- California - Proposition 65

cellulose fiber

- Pennsylvania - Workplace Hazard

stoddard solvent

- New Jersey - Workplace Hazard
- Pennsylvania - Workplace Hazard
- Massachusetts - Hazardous Substance
- New York City - Hazardous Substance

Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: B3 - Combustible Liquid, D2A - Very Toxic

Ingredient(s) - Canadian Regulatory Information

stoddard solvent

- WHMIS - Ingredient Disclosure List

European Union (EU) Regulatory Information

REACH Pre-registration Information:

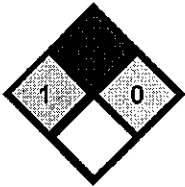
Substance (CAS#)	Reference Number
Asphalt (8052-42-4)	05-2114366982-36-0000
Stoddard Solvent (64742-88-7)	05-2114367025-53-0000
Bentonite (1302-78-9)	05-2114501887-43-0000
Cellulose (9004-34-6)	05-2114366989-22-0000
Attapulgate (12174-11-7)	NA-Naturally Occurring Substance
Water (7732-18-5)	NA-Naturally Occurring Substance

DI150 - WET OR DRY SURFACE FIBERED PLASTIC ROOF CEMENT

WHMIS - Canada (Pictograms)



NFPA



HMIS

HEALTH	1
HAZARD	2
REACTIVITY	0
PERSONAL PROTECTION	

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 11/24/2008

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be consulted
for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)
Bonide Wasp & Hornet Killer (Aerosol)

ID # 4392
Date: May 27, 2008

Section I

Bonide Products, Inc.	(800) 424-9300
6301 Sutliff Rd.	(315) 736-8231
Oriskany, NY 13424	

Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Tetramethrin (CAS# 7696-12-0)	N/E	N/E		0.1
Permethrin (CAS# 52645-53-1)	N/E	N/E		0.25
Piperonyl butoxide (CAS# 51-03-6)	N/E	N/E		0.5

Section III - Physical/Chemical Ingredients

APPEARANCE: Liquid
pH: NA
DENSITY: 6.55 lbs/gal
PHYSICAL STATE: Liquid
VISCOSITY: 20.3 cp @ 22°C
STABILITY: Stable
SOLUBILITY (H₂O): NA
ODOR: Odorless to faint deodorized kerosene odor.
HAZARDOUS POLYMERIZATION: Will not occur.

Section IV - Fire and Explosion Data

FLAMMABLE PROPERTIES: FLASH POINT: 192°F 89°F TCC

FIRE AND EXPLOSION HAZARDS: Flammable. Contents under pressure. Keep away from heat, sparks and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, or Water.
FIRE FIGHTING INSTRUCTIONS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear.

Section V - Health Hazard Information

EMERGENCY OVERVIEW: Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. This product is toxic to fish and aquatic invertebrates. Flammable. Contents under pressure.

PRIMARY ROUTE (S) OF ENTRY: Skin contact.

EYES: Causes moderate eye irritation.

SKIN: Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

CHRONIC (CANCER INFORMATION): See Section 11 for carcinogenic/oncogenic effects of piperonyl butoxide and permethrin.

Section VI - First Aid Measures

EYES: Flush with plenty of water. Call a physician if irritation persists.

SKIN: Wash thoroughly with soap and water.

Section VII - Accidental Release Measures

Soak up with an absorbent material and dispose of in trash.

Section VIII - Handling and Storage

HANDLING PRECAUTIONS:

Avoid contact with eyes or clothing. Do not use in commercial food/feed handling establishments, restaurants, or other sites where food/feed is commercially prepared or processed. Not for use in USDA meat and poultry plants.

STORAGE PRECAUTIONS:

Do not store near heat or open flame. Store in a cool, dry area away from children.

WORK/HYGIENIC PRACTICES:

Wash thoroughly with soap and water after handling.

Dielectric breakdown (non-conductive up to 47,300 volts).

Section IX - Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Use in a well-ventilated area.

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: Chemical-resistant gloves.

Section X - Toxicological Information

ACUTE STUDIES: Acute toxicity data is bridged from a similar product; Tetraperm Wasp & Hornet Killer FEQ 24, EPA Reg. 432-776, which contains 0.15% Tetramethrin, 0.375% Permethrin, and 0.75% Piperonyl Butoxide.

EYE EFFECTS: Moderately irritating.

SKIN EFFECTS: IRRITATION: Slightly irritation.

ABSORPTION: LD50 > 18.92 /mgL (for DOT classification)

SENSITIZATION: Positive

ACUTE ORAL EFFECTS: LD50 > 5,000 mg/kg

ACUTE INHALATION EFFECTS: 4-hour LD50 > 4.73 mg/L

CHRONIC (CANCER INFORMATION): A statistically significant increase in the incidence of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day of permethrin technical over 85 weeks.

A statistically significant increase in the number of benign liver tumors appeared in mice fed piperonyl butoxide technical at doses which far exceed any anticipated daily human intake. Independent and industry toxicological experts who have reviewed the data agree that the findings of the study do not indicate a health risk to human beings.

CARCINOGENICITY:

NTP: No IARC: No OSHA: No

Section XI - Ecological Information

OTHER ENVIRONMENTAL INFORMATION:

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water.

Section XII - Disposal Consideration

Replace cap. Wrap container in several layers of newspaper and discard in trash. Do not incinerate or puncture. Can be disposed of with other recyclables where local law permits.

Section XIII - Transport Information

PROPER SHIPPING NAME: Aerosols, Nonflammable

HAZARD CLASS: 2.2

DOT IDENTIFICATION NUMBER: UN1950

DOT SHIPPING LABEL: Nonflammable gas

Section XIV - Regulatory Information**SARA TITLE III NOTIFICATIONS AND INFORMATION****SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION**

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372:

<u>CAS NUMBER</u>	<u>INGREDIENT NAME</u>	<u>PERCENT BY WEIGHT</u>
7696-12-0	Tetramethrin	=0.1
52645-53-1	Permethrin	=0.25
51-03-6	Piperonyl butoxide	=0.5

This information must be included on all MSDS's that are copied and distributed for this material.

REGULATED INGREDIENTS:

INGREDIENT: Tetramethrin

CAS NUMBER: 7696-12-0

PERCENT BY WEIGHT: = 0.1

REGULATIONS: SARA Section 313 Toxic Chemical

INGREDIENT: Permethrin

CAS NUMBER: 52645-53-1

PERCENT BY WEIGHT: = 0.25

REGULATIONS: Massachusetts Hazardous Substance
New Jersey Workplace Hazardous Substance
SARA Section 313 Toxic Chemical

INGREDIENT: Piperonyl butoxide

CAS NUMBER: 51-03-6

PERCENT BY WEIGHT: = 0.5

REGULATIONS: SARA Section 313 Toxic Chemical

INGREDIENT: Carbon dioxide

CAS NUMBER: 124-38-9

PERCENT BY WEIGHT: > 2

REGULATIONS: Illinois Toxic Substance
Massachusetts Hazardous Substance
New Jersey Workplace Hazardous
Pennsylvania Workplace Hazardous Substance

Section XV - Other Information**HMIS HAZARD RATING:**

HEALTH: 1 Slight

FIRE: 2 Moderate

PROTECTION: B

NFPA HAZARD RATING:

HEALTH: 1 Slight

FIRE: 2 Moderate

PROTECTION: B

MSDS IDENTIFICATION CODE/NUMBER: 4392

KEEP OUT OF REACH OF CHILDREN

ABBREVIATION KEY

N/A: NOT AVAILABLE OR APPLICABLE

TLV: THRESHOLD LIMIT VALUE

STEL: SHORT TERM EXPOSURE LIMIT

N/E: NOT ESTABLISHED

TWA: TIME WEIGHTED AVG./ 8 HOUR WORKDAY

D.O.T.: DEPARTMENT OF TRANSPORTATION

ND: Not Determined

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

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SAFETY DATA SHEET

Revision Date 18-Jan-2016

Version 4

1. IDENTIFICATION

Product identifier

Product Name ULTRA COPPER GASKET MAKER 3 OZ.

Other means of identification

Product Code 81878

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Sealant

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA

Distributor

ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

Company Phone Number

1-87-Permatex
(877) 376-2839

24 Hour Emergency Phone Number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address

mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2

Label elements

Emergency Overview

Warning

Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer



Appearance Copper

Physical state Paste

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see supplemental first aid instructions on this label)

IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing if eye irritation persists: Get medical advice/attention
 ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Not applicable

Unknown acute toxicity

16.3812 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

substance(s)

Chemical Name	CAS No	Weight-%	Trade Secret
POLY (DIMETHYLSILOXANE), HYDROXY TERMINATED	70131-67-8	30 - 60	*
POLYDIMETHYLSILOXANE	63148-62-9	10 - 30	*
VINYL OXIMINOSILANE	2224-33-1	3 - 7	*
IRON OXIDE	1309-37-1	1 - 5	*
2-BUTANONE OXIME	96-29-7	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Get medical advice/attention if you feel unwell.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Dry chemical, Foam

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Flood with water to complete polymerization and scrape off floor. Sweep up and shovel into suitable containers for disposal. Slippery, can cause falls if

walked on.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Protect from moisture.

Incompatible materials Strong oxidizing agents, Water, Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
IRON OXIDE 1309-37-1	TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ fume and total dust iron oxide (vacated) TWA: 5 mg/m ³ respirable fraction regulated under Rouge	IDLH: 2500 mg/m ³ Fe dust and fume TWA: 5 mg/m ³ Fe dust and fume

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Paste
Appearance Copper
Odor Mild
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7-8	
Melting point / freezing point	No information available	
Boiling point / boiling range	Not Applicable	Polymerization
Flash point	> 93 °C / > 200 °F	Tag Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg @ 80°F	
Vapor density	3.0	Air = 1
Relative density	1.05	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	<3%
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Excessive heat.

Incompatible materials

Strong oxidizing agents, Water, Acids

Hazardous Decomposition Products

Carbon oxides

Nitrogen oxides (NOx)

Formaldehyde

May release 2-butanone oxime (ethyl methyl ketoxime) at elevated temperature

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.

Ingestion Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
POLY (DIMETHYLSILOXANE), HYDROXY TERMINATED 70131-67-8	-	> 16 mL/kg (Rabbit)	> 8750 mg/m ³ (Rat) 7 h
POLYDIMETHYLSILOXANE 63148-62-9	> 17 g/kg (Rat)	> 2 g/kg (Rabbit)	-
IRON OXIDE 1309-37-1	> 10000 mg/kg (Rat)	-	-
2-BUTANONE OXIME 96-29-7	= 930 mg/kg (Rat)	= 0.2 mg/kg (Rabbit)	= 20 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
IRON OXIDE 1309-37-1	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 33322 mg/kg

ATEmix (dermal) 5426 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

98.9602 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-BUTANONE OXIME 96-29-7	83: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	777 - 914: 96 h <i>Pimephales</i> <i>promelas</i> mg/L LC50 flow-through 760: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 320 - 1000: 96 h <i>Leuciscus idus</i> mg/L LC50 static	750: 48 h <i>Daphnia magna</i> mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
2-BUTANONE OXIME 96-29-7	0.65

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	Not applicable

14. TRANSPORT INFORMATION**DOT**

Proper shipping name: Not regulated

IATA

Proper shipping name: Not regulated

IMDG

Proper shipping name: Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed.
ENCS	Not Listed.
IECSC	Complies
KECL	Not Listed.
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
IRON OXIDE 1309-37-1	X	X	X
2-Ethylhexanoic acid 149-57-5	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 18-Jan-2016

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

1. Identification

Product identifier Hercules Real Tuff

Other means of identification

SDS number 7324E

Synonyms Part Numbers: 15605, 15615, 15620, 15625, 15630, 15632, 15635, 15640

Recommended use Multipurpose thread sealant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name HCC Holdings, Inc. an Oatey Affiliate

Address 4700 West 160th Street
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Petroleum distillates, solvent refined heavy paraffinic	64741-88-4	15-40
Talc	Mixture	15-40
Polyfluoroethylene	9002-84-0	10-30
Titanium dioxide	13463-67-7	5-10
Castor Oil, Oxidized	68187-84-8	1-5
SOYBEAN LECITHIN	8002-43-5	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Storage	Use water spray to cool unopened containers.
Spill/leak instructions	
Extinguishing methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Other fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Petroleum distillates, solvent refined heavy paraffinic (CAS 64741-88-4)	PEL	5 mg/m ³	Mist.
		2000 mg/m ³	
		500 ppm	
Titanium dioxide (CAS 13463-67-7)	PEL	15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3 20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Petroleum distillates, solvent refined heavy paraffinic (CAS 64741-88-4)	TWA	5 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Petroleum distillates, solvent refined heavy paraffinic (CAS 64741-88-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3	

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eyeface protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Paste.

Physical state Solid.

Form Solid.

Color White.

Odor Odorless

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	< 1
Relative density	1.56
Solubility(ies)	
Solubility (water)	slightly soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	20000 - 50000 cP
Other information	
VOC (Weight %)	6 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Petroleum distillates, solvent refined heavy paraffinic (CAS 64741-88-4)

Silica, amorphous, fumed (CAS 112945-52-5)

Titanium dioxide (CAS 13463-67-7)

US. New Jersey Worker and Community Right-to-Know Act

Titanium dioxide (CAS 13463-67-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Silica, amorphous, fumed (CAS 112945-52-5)

Titanium dioxide (CAS 13463-67-7)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Titanium dioxide (CAS 13463-67-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 30-July-2014
 Revision date 10-December-2014
 Version # 02
 HMIS® ratings Health: 0
 Flammability: 0
 Physical hazard: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

C

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C

1. Identification

Product identifier Propane

Other means of identification

SDS number WC002

Product code UN1075

Recommended use Portable fuel.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Worthington Cylinder Corporation

Address 300 E. Breed St., Chilton, WI 5301
United States

Contact person Ann Stiefvater

E-mail address Ann.Stiefvater@worthingtonindustries.com

Telephone number 1-920-849-1740

Emergency telephone number 1-703-527-3887 International / CHEMTREC 1-800-424-9300 Domestic

2. Hazard(s) identification

Physical hazards Flammable gases Category 1
Gases under pressure Liquefied gas

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable gas. Contains gas under pressure; may explode if heated.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage Protect from sunlight. Store in a well-ventilated place.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) May displace oxygen and cause rapid suffocation.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Propane	74-98-6	87.5-100
Ethane	74-84-0	0-7
Propylene	115-07-1	0-5
Butane	106-97-8	0-2.5

Additives

Chemical name	CAS number	%
Ethyl Mercaptan	75-08-1	<0.005

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100 F/38 C and 110 F/43 C, not exceeding 112 F/44 C). Keep immersed for 20 to 40 minutes. Seek medical assistance.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Ingestion is not a typical route of exposure for gases or liquefied gases.

Most important symptoms/effects, acute and delayed

Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.

Indication of immediate medical attention and special treatment needed

Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO2, water spray, fog, or foam.

Unsuitable extinguishing media

None known.

Hazards arising from fire

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Protective equipment and actions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Handling

Move container from fire area if it can be done without risk.

Spill/instructions

Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

General fire hazards

Extremely flammable gas.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away.

Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel.

Environmental precautions

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater.

7. Handling and storage

Precautions for safe handling

Eliminate all sources of ignition. Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Do not breathe gas. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Store in accordance with local, regional, national, and international regulations. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a cool, dry, well-ventilated place. Keep container tightly closed and sealed until ready for use. Protect cylinders from damage.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	Ceiling	25 mg/m3 10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	TWA	0.5 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	Ceiling	1.3 mg/m3 0.5 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear approved safety glasses or goggles.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear protective clothing appropriate for the risk of exposure.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance	Colorless gas.
Physical state	Gas.
Form	Compressed liquefied gas.
Color	Colorless.
Odor	Rotten egg.

Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	-306.4 °F (-188 °C)
Initial boiling point and boiling range	-43.6 °F (-42 °C) 14.7 psia
Flash point	-155.2 °F (-104.0 °C)
Evaporation rate	Not applicable.
Flammability (solid, gas)	Extremely flammable gas.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	2.15 %
Explosive limit - upper (%)	9.6 %
Vapor pressure	127 psig (21°C / 70°F)
Vapor density	Not available.
Relative density	0.504 (liquid) 1.5 (vapor) (air=1) @ 15°C / 60°F
Solubility(ies)	
Solubility (water)	Slightly soluble in water.
Partition coefficient (n-octanol/water)	1.77
Auto-ignition temperature	809.6 °F (432 °C)
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Molecular weight	45 g/mol
Percent volatile	100 %

10. Stability and reactivity

Reactivity	Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Strong acids. Halogens.
Hazardous decomposition products	Carbon oxides. Hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not likely, due to the form of the product.
Inhalation	High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.
Skin contact	Contact with liquefied gas may cause frostbite.
Eye contact	Contact with liquefied gas may cause frostbite.
Symptoms related to the physical, chemical and toxicological characteristics	Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.

Information on toxicological effects

Acute toxicity	High concentration: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.
----------------	--

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 1442 mg/l, 15 Minutes
Propylene (CAS 115-07-1)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Additives	Species	Test Results

Ethyl Mercaptan (CAS 75-08-1)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Mouse	4420 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	682 mg/kg

Skin corrosion/irritation Contact with liquefied gas might cause frostbites, in some cases with tissue damage.

Serious eye damage/eye irritation Direct contact with liquefied gas may cause eye damage from frostbite.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

 Propylene (CAS 115-07-1) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability The product is readily biodegradable.

Bioaccumulative potential The product is not expected to bioaccumulate.

Partition coefficient n-octanol / water (log Kow)

 Propane (CAS Mixture) 1.77

 Butane (CAS 106-97-8) 2.89

 Propane (CAS 74-98-6) 2.36

 Propylene (CAS 115-07-1) 1.77

Mobility in soil May evaporate quickly.

Mobility in general May evaporate quickly.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 °F

Waste from residues / unused products Dispose in accordance with all applicable regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1075
UN proper shipping name Petroleum Gases, liquefied
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant No
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions 19, T50
Packaging exceptions 306
Packaging non bulk 304
Packaging bulk 314, 315

IATA

UN number UN1075
UN proper shipping name Petroleum Gases, liquefied
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Environmental hazards No
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1075
UN proper shipping name Petroleum Gases, liquefied
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Environmental hazards
Marine pollutant No
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This product is a compressed or liquefied gas and when transported in bulk is covered under IGC code.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Butane (CAS 106-97-8)	LISTED
Ethyl Mercaptan (CAS 75-08-1)	LISTED
Propane (CAS 74-98-6)	LISTED
Propylene (CAS 115-07-1)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - Yes
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Propylene	115-07-1	0-5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

- Butane (CAS 106-97-8)
- Ethyl Mercaptan (CAS 75-08-1)
- Propane (CAS 74-98-6)
- Propylene (CAS 115-07-1)

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

- Butane (CAS 106-97-8)
- Ethyl Mercaptan (CAS 75-08-1)
- Propane (CAS 74-98-6)
- Propylene (CAS 115-07-1)

US. New Jersey Worker and Community Right-to-Know Act

- Butane (CAS 106-97-8)
- Ethyl Mercaptan (CAS 75-08-1)
- Propane (CAS 74-98-6)
- Propylene (CAS 115-07-1)

US. Pennsylvania Worker and Community Right-to-Know Law

- Butane (CAS 106-97-8)
- Ethyl Mercaptan (CAS 75-08-1)
- Propane (CAS 74-98-6)
- Propylene (CAS 115-07-1)

US. Rhode Island RTK

- Butane (CAS 106-97-8)
- Ethyl Mercaptan (CAS 75-08-1)
- Propane (CAS 74-98-6)
- Propylene (CAS 115-07-1)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

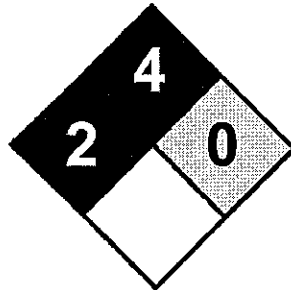
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-May-2014
Revision date 25-March-2015
Version # 03
NFPA Ratings



Disclaimer

All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.



MATERIAL SAFETY DATA SHEET

Section 1: Product and Company Identification

Product: MAP-Pro™ Premium Hand Torch Fuel	Company: Worthington Cylinder Corporation
Description: Propylene	Address: 200 Old Wilson Bridge Road
Date Issued: February 26, 2008	Columbus, Ohio 43085
Last Revised: Original	Information: 614-438-7960
	Emergency: CHEMTREC – (800) 424-9300

Section 2: Hazardous Ingredients and Exposure Limits

Ingredient	CAS Number	Weight %	OSHA PEL (ppm)	ACGIH TLV (ppm)
Propylene	115-07-1	99.5 – 100	Not Established	500
Propane	74-98-6	0 – 0.5	1000	1000

Section 3: Physical and Chemical Properties

Boiling Point: -54 °F	Vapor Pressure: 109.73 psig @ 70 °F
Melting Point: -301 °F	Vapor Density (air=1): 1.5 @ 32 °F
Specific Gravity: 0.52 (liquid)	Solubility in Water: Slight
Molecular Weight: 42	Percent Volatile by Weight: 100
Appearance: Colorless gas	Odor: Hydrocarbon

Section 4: Fire and Explosion Data

Flash Point: -162 °F
Auto Ignition: 927 °F
Lower Explosion Limit: 2.0% by volume in air
Upper Explosion Limit: 11.0% by volume in air
General Fire Hazards: Liquid releases vapors that readily form a flammable mixture with air. Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Vapors are heavier than air and may travel long distances to a point of ignition. Container may explode in heat or flame.
Hazardous Combustion Products: Carbon monoxide, carbon dioxide and various non-combusted hydrocarbons.
Extinguishing Media: Dry chemical, foam, carbon dioxide, Halon or water.
Unusual Fire Hazards: Use extreme caution when fighting liquefied petroleum gas fires. Heated containers may rupture violently and suddenly without warning due to vessel overpressure (BLEVE-boiling liquid expanding vapor explosions). If safe to do so stop the flow of gas and allow the flame to burn out. Extinguishing the flame before shutting off the supply can cause formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use water to cool equipment, surfaces and containers exposed to fire and excessive heat.

Section 5: Reactivity Data

Chemical Stability: Stable



MATERIAL SAFETY DATA SHEET

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.
Incompatibility: Strong oxidizers such as nitrates, perchlorates, chlorine and fluorine.
Hazardous Polymerization: Does not polymerize except under special conditions (extreme temperature, pressure, oxidizers).
Conditions to Avoid: Sources of heat, sparks or flame.

Section 6: Hazards Identification

Overview: This product contains propylene a colorless liquid that rapidly turns into a gas at standard atmospheric temperatures and pressure. Propylene has a slight hydrocarbon odor. In commerce propylene is packaged as a liquified gas under pressure. Propylene is extremely flammable and explosive. At high concentrations it acts as a simple asphixiant by diluting and displacing oxygen, particularly in confined spaces. Direct contact with liquefied product may cause freeze burns and frostbite. Use this product only in well ventilated areas and, where appropriate, proper respiratory protection and personal protective equipment should be worn.

Primary Entry Routes: Inhalation

Target Organs: Respiratory system

Potential Health Effects:

- **Inhalation:** Product is an anesthetic at high concentrations. Inhalation may cause central nervous system depression producing dizziness, drowsiness, headache, and similar narcotic symptoms. Extremely high concentrations can cause asphyxiation and death by displacing oxygen from the breathing atmosphere.
- **Eyes:** Vapor is generally non-irritating to the eyes. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.
- **Skin:** Vapor is generally non-irritating to the skin. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.

Ingestion: Ingestion is not likely.

Conditions Aggravated by Exposure: Chronic diseases or disorders of the respiratory system.

Toxicological Information: Propylene is an anesthetic and is mildly irritating to the mucous membranes. At high concentrations propylene acts as a simple asphixiant without significant potential for systemic toxicity. High concentrations can cause death due to oxygen depletion. Toxicity data can be found in the Registry of Toxic Effects of Chemical Substances available on-line from the National Institute for Occupational Safety and Health (NIOSH).

Carcinogenic Effects: Propylene is not identified as being carcinogenic by the International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP), ACGIH or OSHA.

Section 7: First Aid Measures

Eye Contact: Flush eyes with plenty of water for at least 15 minutes while occasionally lifting the eyelids. Seek medical attention.

Skin Contact: Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation or redness develops. In case of frostbite, place affected area in warm water or wrap in blankets if warm water is not available. DO NOT USE HOT WATER. Seek immediate medical attention.

Inhalation: Remove to fresh air. Administer oxygen or artificial respiration if necessary. Seek immediate medical attention.

Ingestion: Risk of ingestion is extremely low. Seek immediate medical attention in cases of ingestion or oral exposure.



MATERIAL SAFETY DATA SHEET

Section 8: Personal Protective Equipment

Engineering Controls: Good industrial hygiene practice requires that engineering controls be used where feasible to reduce workplace concentrations of hazardous materials.

Ventilation: Use adequate ventilation to keep gas and vapor concentrations of this product below the occupational exposure and flammability limits, particularly in confined spaces. Use mechanical ventilation that is explosion proof.

Respiratory Protection: Maintain oxygen levels above 19.5% in the workplace. Respirators must be worn if ambient concentrations of contaminants exceed prescribed exposure limits. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134). Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen. When required, only NIOSH approved respirators should be used.

Protective Clothing: Protective clothing should be worn to prevent skin contact. Protective gloves should be worn as required for welding or burning. Use insulated gloves where there is the possibility of liquid contact.

Eye Protection: Use safety glasses or goggles as required for welding or burning. Use splash-proof goggles or faceshield where there is the possibility of liquid contact.

Section 9: Handling and Storage

Handling Precautions: Keep away from flame, sparks and excessive temperatures. Use only in well-ventilated areas.

Storage Requirements: Store in a cool, dry, well-ventilated area away from sources of ignition, strong oxidizers or other incompatible materials. Post "No Smoking or Open Flame" signs in the storage and use areas. Protect cylinders against physical damage. Do not cut, drill, grind or weld on empty cylinders since they may contain explosive residues. Do not attempt to refill cylinders.

Spill Response Procedures: Evacuate area of all unnecessary personnel. Remove or shut off all sources of ignition. Ventilate the area thoroughly.

Disposal: Waste disposal must be in accordance with appropriate Federal, State and local regulations.

DOT Requirements: Product is classified as a Hazardous Substance under 49 CFR 172.101.

Shipping Name: Propylene

Hazard Class: 2.1 (Flammable Gas)

ID Number: UN 1077

Packing Group: Not Applicable

Marking: Propylene, UN 1077

Label: Flammable Gas

Placard: Flammable Gas / UN1077

Hazardous Substance/RQ: Not Applicable

Shipping Description: Propylene, 2.1 (Flammable Gas), UN 1077

Packaging References: 49 CFR 173.304, 173.306, 173.314 and 173.315

Section 10: Regulatory Information

US Federal Regulations:

- OSHA Hazardous Communication (29 CFR Part 1910.1200): This product is hazardous as defined in OSHA's Hazard Communication standard.
- OSHA Process Safety Management (29 CFR Part 1910.119): This product may be subject to OSHA's Process Safety Management of Highly Hazardous Chemicals standard.
- CERCLA Reportable Quantities (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.
- Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under 40 CFR Part 355.



MATERIAL SAFETY DATA SHEET

- SARA 311/312 Hazard Class (40 CFR Part 370): The following hazard categories apply to this product:
 - Acute Health Hazard
 - Fire Hazard
 - Sudden Release of Pressure
- SARA 313 (40 CFR Part 372): Propylene is subject to the Toxic Release Reporting requirements of 40 CFR Part 372.
- TSCA Inventory Status: Propylene is listed on the TSCA Inventory.
- Chemical Accident Prevention Provisions (40 CFR Part 68): Propylene is subject to the reporting requirements of 40 CFR Part 68.

State Regulations:

- California Proposition 65: Propylene is not on the California Proposition 65 lists.
- The following States are known to have specific regulations applicable to ingredients in this product:
 - Massachusetts
 - Minnesota
 - New Jersey
 - Pennsylvania
 - Rhode Island

Other Regulations:

- Canada DSL/NDSL Inventory: Propylene is listed on the Domestic Substances List.

Section 11: Other Information

Hazard Ratings:

NFPA: H-1, F-4, R-1
HMIS®: H-1, F-4, PH-1
WHIMS: A, B1

The HMIS ratings displayed on this MSDS are from the HMIS Third Edition. There have been significant changes made to the system. "PH" stands for "Physical Hazard" as defined in the OSHA Hazardous Communication Standard and replaces the former code "R" for "Reactivity."

Disclaimer: All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.

MATERIAL SAFETY DATA SHEET

Radiator Specialty Company

1900 WILKINSON BLVD. CHARLOTTE, NC 28208 (704) 377-6555

POISON INFORMATION & EMERGENCY: 303-623-5716

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

US DEPARTMENT OF LABOR

Occupational Safety and Health Administration.
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

SECTION I GENERAL INFORMATION

PRODUCT NAME	PLUMBERS HEAT PRUF GREASE
PART NUMBER	GR-1, -1V, -1X

NOTE: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	WT%	C.A.S. NO.	TLV (ACGIH-X—OSHA—)
Heavy Naphthenic Distillate	86	64742-52-5/64742-53-6	5 mg/m ³ (Mist)
Fatty Acid	14	64755-01-7	

Comments:

Components not identified are non-hazardous according to 29 CFR 1910.1200

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Specific Gravity (H ₂ O=1)	Approx 1.0	pH	6-7
Solubility in Water	Insoluble	Solubility in Solvent	Petroleum
Flash Point (Method) - F ^o	380 ^o F (COC)	% Volatiles By Wt.	N/A
Melting Point - F ^o	N/A	Boiling Point - F ^o	<500 F
Vapor Pressure (mmHg)	N/A	Vapor Density (Air=1)	N/A
Evaporation Rate (Butyl Acetate=1)	N/A		
Appearance and Odor	Brown grease with petroleum-like odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA:

Water Fog	X	Foam	X	CO ₂	X	Dry Chemical	X
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SPECIAL FIRE FIGHTING PROCEDURES. Wear self-contained, positive pressure breathing apparatus and protective clothes. Cool containers with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS None known.

SECTION V REACTIVITY DATA

Stable	X	Unstable	Corrosive	NO	Hazardous Polymerization?	Yes	No	X
Incompatibilities Strong oxidizers								
Hazardous Decomposition or Byproducts			Fire: normal products of combustion: carbon monoxide, carbon dioxide and smoke					

SECTION VI HEALTH HAZARD INFORMATION

Recommended TLV of Product		5mg/m ³ (Mist) Heavy Naphthenic Distillate						
EYE CONTACT	Mild irritant	SKIN CONTACT Mild irritant on prolonged exposure.						
INHALATION	Not likely (grease)	INGESTION Not likely (grease) HARMFUL IF SWALLOWED!						
OTHER	N/A							

SECTION VII EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT	Flush with water for at least 15 minutes while lifting eyelids. Consult a physician immediately							
SKIN CONTACT	Wash with soap and water. If injected under the skin (high pressure), treat as medical emergency.							
INHALATION	Move to fresh air							
INGESTION	DO NOT INDUCE VOMITING! Consult a physician immediately. DO NOT ADMINISTER ADRENALIN OR EPINEPHRINE!							

SECTION VIII SPECIAL PROTECTION INFORMATION

	CONSUMER	BULK HANDLING (Prolonged Exposure)
RESPIRATORY PROTECTION	N/A	None required
VENTILATION	Use with adequate ventilation.	Local
PROTECTION	N/A	Splash gloves or face shield
PROTECTIVE CLOTHING	N/A	Chemical resistant gloves and apron

SECTION IX PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURE	Observing health hazards described above, remove ignition source. Soak up with absorbent clay or wipe up with rags and transfer to waste drum.
WASTE DISPOSAL METHOD	<i>Dispose of in accordance with all applicable government laws and regulations.</i>
STORAGE AND HANDLING PRECAUTIONS	Store in cool place away from, ignition source, oxidizing agents
OTHER PRECAUTIONS	Keep containers closed when not in use. KEEP AWAY FROM CHILDREN AND ANIMALS!

HAZARD INFORMATION LABEL DATA	
HAZARD CODE	FLAMMABILITY
4 = Extreme	
3 = High	
2 = Moderate	
1 = Slight	
0 = Negligible	

Supersedes FEBRUARY 1999

OSHA Revised JULY 2001
Title R. GEER - CHEMIST

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification.



SAFETY DATA SHEET

1. Identification

Product identifier Oatey No. 11 Liquid Flux

Other means of identification

SDS number 1612E

Synonyms Part Numbers: 30106

Recommended use Joining Copper Pipes.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage.

Precautionary statement

Prevention Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dusts or mists.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Water	7732-18-5	40-70

Zinc chloride	7646-85-7	15-40
Hydrochloric acid	7647-01-0	10-30
Ammonium chloride	12125-02-9	3-7

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Not available.
Conditions for safe storage, including any incompatibilities	Not available.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m ³	
Zinc chloride (CAS 7646-85-7)	PEL	5 ppm 1 mg/m ³	Fume.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m ³	Fume.
Hydrochloric acid (CAS 7647-01-0)	TWA Ceiling	10 mg/m ³ 2 ppm	Fume.
Zinc chloride (CAS 7646-85-7)	STEL	2 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m ³	Fume.
Hydrochloric acid (CAS 7647-01-0)	TWA Ceiling	10 mg/m ³ 7 mg/m ³	Fume.
Zinc chloride (CAS 7646-85-7)	STEL	5 ppm 2 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Not available.

Color

Light yellow.

Odor

Strong acidic.

Odor threshold

Not available.

pH

2 - 3

Melting point/freezing point	Not available.
Initial boiling point and boiling range	208 °F (97.78 °C)
Flash point	Not Applicable
Evaporation rate	Not available.
Flammability (solid, gas)	
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	> 1
Relative density	1.14
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	10 cP

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydrochloric acid (CAS 7647-01-0) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1760
UN proper shipping name Corrosive liquids, n.o.s. (Hydrochloric acid RQ = 38462 LBS, Zinc chloride RQ = 3030 LBS)
Transport hazard class(es)
Class 8
Subsidiary risk -
Label(s) 8
Packing group III
Special precautions for user Not available.
Special provisions A6, A7, B10, T14, TP2, TP27
Packaging exceptions None
Packaging non bulk 201
Packaging bulk 243

IATA

UN number UN1760
UN proper shipping name Corrosive liquid, n.o.s. (Hydrochloric acid, Zinc chloride)
Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group III

Environmental hazards No.
 ERG Code 8L
 Special precautions for user Not available.

IMDG

UN number UN1760
 UN proper shipping name CORROSIVE LIQUID, N.O.S. (Hydrochloric acid, Zinc chloride)
 Transport hazard class(es)
 Class 8
 Subsidiary risk -
 Packing group III
 Environmental hazards
 Marine pollutant No.
 EmS F-A, S-B
 Special precautions for user Not available.
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
 All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ammonium chloride (CAS 12125-02-9)	LISTED
Hydrochloric acid (CAS 7647-01-0)	LISTED
Zinc chloride (CAS 7646-85-7)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Hydrochloric acid	7647-01-0	5000	500		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Zinc chloride	7646-85-7	15-40
Hydrochloric acid	7647-01-0	10-30
Ammonium chloride	12125-02-9	3-7

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hydrochloric acid (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Hydrochloric acid (CAS 7647-01-0)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Hydrochloric acid (CAS 7647-01-0) 6545

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Hydrochloric acid (CAS 7647-01-0) 20 %WV

DEA Exempt Chemical Mixtures Code Number

Hydrochloric acid (CAS 7647-01-0) 6545

US state regulations

US. Massachusetts RTK - Substance List

Ammonium chloride (CAS 12125-02-9)

Hydrochloric acid (CAS 7647-01-0)

Zinc chloride (CAS 7646-85-7)

US. New Jersey Worker and Community Right-to-Know Act

Ammonium chloride (CAS 12125-02-9)

Hydrochloric acid (CAS 7647-01-0)

Zinc chloride (CAS 7646-85-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Ammonium chloride (CAS 12125-02-9)

Hydrochloric acid (CAS 7647-01-0)

Zinc chloride (CAS 7646-85-7)

US. Rhode Island RTK

Ammonium chloride (CAS 12125-02-9)

Hydrochloric acid (CAS 7647-01-0)

Zinc chloride (CAS 7646-85-7)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 16-October-2014

Revision date 19-February-2015

Version # 03

HMIS® ratings Health: 3
Flammability: 0
Physical hazard: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.

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SAFETY DATA SHEET

1. Identification

Product identifier Harvey Seal

Other means of identification

Product code 3703E

Synonyms Part Numbers: 025020, 025050, 025080

Recommended use Pipe Joint Compound for Threaded Metal Pipes

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name William H. Harvey Company

Address 4334 South 67th Street
Omaha, NE 68117

Telephone 402-331-115

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Calcium carbonate	1317-65-3	60-70
Oxidized Soy Bean Oil	68152-81-8	10-20
2-Butoxyethanol	111-76-2	5-10
Silicon Dioxide	112926-00-8	1-5
Crystalline silica (Quartz)	14808-60-7	< 1.5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m ³	
Calcium carbonate (CAS 1317-65-3)	PEL	50 ppm	Respirable fraction.
		5 mg/m ³	
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Silicon Dioxide (CAS 112926-00-8)	TWA	0.8 mg/m3	
		20 mppcf	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3	
		5 ppm	
Calcium carbonate (CAS 1317-65-3)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Silicon Dioxide (CAS 112926-00-8)	TWA	6 mg/m3	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.
Form Liquid. Liquid paste.
Color Yellow.

Odor Petroleum.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point 153.0 °F (67.2 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 30000 cP

Other information

VOC (Weight %) 119 g/l

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Acids. Strong oxidizing agents. Fluorine.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Silicon Dioxide (CAS 112926-00-8)		
Acute		
<i>Oral</i>		
LD50	Rat	> 22500 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

Crystalline silica (Quartz) (CAS 14808-60-7) 1 Carcinogenic to humans.

Silicon Dioxide (CAS 112926-00-8) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Crystalline silica (Quartz) (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Prolonged exposure may cause chronic effects.

Further information This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
2-Butoxyethanol (CAS 111-76-2) 0.83

Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
Not regulated as dangerous goods.
IATA
Not regulated as dangerous goods.
IMDG
Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.
General information DOT: Not regulated as dangerous goods except when shipped in bulk. This material is not regulated if in a container of 119 gallon (450 L) capacity or less.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	5-10

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
Crystalline silica (Quartz) (CAS 14808-60-7)
Silicon Dioxide (CAS 112926-00-8)

US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
Crystalline silica (Quartz) (CAS 14808-60-7)
Silicon Dioxide (CAS 112926-00-8)

US. Pennsylvania Worker and Community Right-to-Know Law

2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
Crystalline silica (Quartz) (CAS 14808-60-7)

US. Rhode Island RTK

2-Butoxyethanol (CAS 111-76-2)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline silica (Quartz) (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

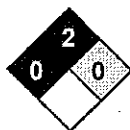
*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-February-2015
Revision date -
Version # 01
HMIS® ratings Health: 0
Flammability: 2
Physical hazard: 0

NFPA ratings



Disclaimer

William H. Harvey Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



SAFETY DATA SHEET

1. Identification

Product identifier Oatey Plumber's Putty

Other means of identification

Product code 1705E

Synonyms Part Numbers: 31166, 31167, 31170, 31174, 48003, 48004

Recommended use Plumbing Mastic

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Limestone	1317-65-3	60-90
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	5-30
Crystalline silica (Quartz)	14808-60-7	<1
Other components below reportable levels		9.85

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Coughing.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m ³	Mist.
estone (CAS 1317-65-3)	PEL	2000 mg/m ³ 500 ppm 5 mg/m ³ 15 mg/m ³	Respirable fraction. Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m ³	
	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.
	TWA	5 mg/m ³	Respirable.
Limestone (CAS 1317-65-3)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Total

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eyeface protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear suitable protective clothing.

Respiratory protection

Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Solid.

Form

Putty.

Color

Off-white.

Odor

Slight.

Odor threshold

Not available.

pH

Not applicable

Melting point/freezing point

Not available.

Initial boiling point and boiling range	Not determined
Flash point	> 212.0 °F (> 100.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.87
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	> 500000 cP
Other information	
VOC (Weight %)	20 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Fluorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Coughing.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) Risk of cancer cannot be excluded with prolonged exposure.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Crystalline silica (Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	3 Not classifiable as to carcinogenicity to humans.
NTP Report on Carcinogens	
Crystalline silica (Quartz) (CAS 14808-60-7)	Known To Be Human Carcinogen.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Crystalline silica (Quartz) (CAS 14808-60-7)
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
Limestone (CAS 1317-65-3)

US. New Jersey Worker and Community Right-to-Know Act

Crystalline silica (Quartz) (CAS 14808-60-7)
Limestone (CAS 1317-65-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Crystalline silica (Quartz) (CAS 14808-60-7)
Limestone (CAS 1317-65-3)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline silica (Quartz) (CAS 14808-60-7)
Methanol (CAS 67-56-1)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

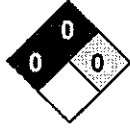
16. Other information, including date of preparation or last revision

Issue date 22-April-2015

Revision date
Version #
HMIS® ratings

-
01
Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings



Disclaimer

Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

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SAFETY DATA SHEET

1. Identification

Product identifier Oatey No. 5 Paste Flux

Other means of identification

SDS number 1610E

Synonyms Part Numbers: No 5- 30011, 30013, 30014, 30038, 30041, 48307, 48420, 48421, 48422, 48423, 53017, 53060, 53200, Hot Weather- 30062

Recommended use Joining Copper Pipes. Joining Copper Tubing.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage.

Precautionary statement

Prevention Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dusts or mists.

Response If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Petrolatum	8009-03-8	60-100

Zinc chloride	7646-85-7	10-30
Water	7732-18-5	3-7
Ammonium chloride	12125-02-9	1-5

First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Call a physician or poison control center immediately. Remove contact lenses, if present and easy to do.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike far ahead of spill for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Petrolatum (CAS 8009-03-8)	PEL	5 mg/m ³	Mist.
Zinc chloride (CAS 7646-85-7)	PEL	1 mg/m ³	Fume.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m ³	Fume.
	TWA	10 mg/m ³	Fume.
Petrolatum (CAS 8009-03-8)	TWA	5 mg/m ³	Inhalable fraction.
Zinc chloride (CAS 7646-85-7)	STEL	2 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m ³	Fume.
	TWA	10 mg/m ³	Fume.
Petrolatum (CAS 8009-03-8)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.
Zinc chloride (CAS 7646-85-7)	STEL	2 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eyeface protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Solid.

Form

Solid. Paste.

Color

Not available.

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point	Not available.
Initial boiling point and boiling range	638 °F (336.67 °C)
Flash point	540.0 °F (282.2 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	> 1
Relative density	1.1
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	20000 - 40000 cP
Other information	
VOC (Weight %)	29 g/l 3% by weight

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity None known.

IARC Monographs. Overall Evaluation of Carcinogenicity

Petrolatum (CAS 8009-03-8) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ammonium chloride (CAS 12125-02-9)	LISTED
Zinc chloride (CAS 7646-85-7)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Zinc chloride	7646-85-7	10-30
Ammonium chloride	12125-02-9	1-5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****US. Massachusetts RTK - Substance List**

Ammonium chloride (CAS 12125-02-9)
 Petrolatum (CAS 8009-03-8)
 Zinc chloride (CAS 7646-85-7)

US. New Jersey Worker and Community Right-to-Know Act

Ammonium chloride (CAS 12125-02-9)
 Petrolatum (CAS 8009-03-8)
 Zinc chloride (CAS 7646-85-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Ammonium chloride (CAS 12125-02-9)
 Petrolatum (CAS 8009-03-8)
 Zinc chloride (CAS 7646-85-7)

US. Rhode Island RTK

Ammonium chloride (CAS 12125-02-9)
 Zinc chloride (CAS 7646-85-7)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 26-October-2014
Revision date 19-February-2015
Version # 03
HMIS® ratings Health: 3
 Flammability: 0
 Physical hazard: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for use, handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

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CEMENT & CONCRETE PRODUCTS™

C9: Portland Cement Based Concrete Products

SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
One Securities Centre
3490 Piedmont Road, Suite 1300
Atlanta, GA 30305

Emergency Telephone Number
(770) 216-9580
Information Telephone Number
(770) 216-9580

Revision: Jan-16
SDS C9

QUIKRETE® Product Name	Item #(s)
Sand (Topping) Mix	1103
Sand Mix – Type II	1103-88, NR83003
TileCrete™	1103-84
All Star Sand Mix	1123
Vinyl Concrete Patcher	1133, 1132, 1131-15
Bonded Topping Mix	1133-18, -04
Handicrete Sand Mix	1143
RiteMix Sand Mix	1173
Foundation Coating	1215
Deck Mud	1548-55
Powerlite	NR3004
Revetment - Rip Rap Burlap	NR83994
3:1 Sand/Cement - Burlap	NR83999

Product Use: Portland cement-based, aggregated products for repairs and general construction

SECTION II - HAZARD IDENTIFICATION

Hazard-determining components of labeling: Silica, Portland cement

2.1 Classification of the substance or mixture

Carcinogen – Category 1A

Skin Corrosion – Category 1B

Skin Sensitization – Category 1B

Specific Target Organ Toxicity Repeat Exposure – Category 1

Specific Target Organ Toxicity: Single Exposure – Category 3

CEMENT & CONCRETE PRODUCTS™**2a Signal word DANGER!****2b Hazard Statements**

May cause cancer through chronic inhalation
Causes severe skin burns and serious eye damage
May cause an allergic skin reaction
Causes damage to lungs through prolonged or repeated inhalation
May cause respiratory irritation

2.2c Pictograms**2.2d Precautionary statements**

Do not handle until all safety precautions have been read and understood.
Wear impervious gloves, such as nitrile. Wear eye protection, and protective clothing.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.
Use only in a well-ventilated area.
Do not breathe dust.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin (or hair): Remove immediately all contaminated clothing and wash before re-use. Rinse skin or hair with water.

If significant skin irritation or rash occurs: get medical advice or attention.

Immediately seek medical advice or attention if symptoms are significant or persist.

Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/containers in accordance with all regulations.

2.3 Additional Information

The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is

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contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr(VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

2.3a HNO3 – Hazards not otherwise classified: Not applicable

2.3b Unknown Acute Toxicity: None

2.3C WHMIS Classification

Class D2B – Skin/Eye Irritant

Class D2A – Chronic Toxic Effects – Carcinogen

Class E – Corrosive Material

2.3d Label Elements According To WHMIS

Hazard Symbols



Signal Word

DANGER!

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components

Sand, Silica, Quartz

CAS No.

14808-60-7

% by Weight

40-70*

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Portland Cement	65997 15 1	10-30*
Fly Ash	68131-74-8	5-10*

*The concentrations ranges are provided due to batch-to-batch variability.
None of the constituents of this material are of unknown toxicity.

SECTION IV – FIRST AID MEASURES**4.1 Description of the first-aid measures****General information:**

After inhalation: Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

After skin contact: Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical advice or attention.

After eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated inhalation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

Skin contact: The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns.

Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other

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changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr(VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Ingestion: May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

4.3 Indication of immediate medical attention and special treatment needed:

Immediately seek medical advice or attention if symptoms are significant or persist.

SECTION V - FIRE FIGHTING MEASURES

5.1 Flammability of the Product: Non-flammable and non-combustible

5.2 Suitable extinguishing agents: Treat for surrounding material

5.3 Special hazards arising from the substance or mixture: None

5.3a Products of Combustion: None

5.3b Explosion Hazards in Presence of Various Substances: Non-explosive in presence of shocks

SECTION VI – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section VIII). Keep unprotected persons away.

6.2 Methods and material for containment and cleaning up:

Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

7.1 Handling

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Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace. DO NOT BREATHE DUST. In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator and tight fitting goggles is recommended. Wear appropriate PPE (See section 8). Do not mix with other chemical products, except as indicated by the manufacturer. Do not get in eyes, on skin or clothing. Good housekeeping is important to prevent accumulation of dust.

7.2 Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep out of the reach of children. Keep container tightly closed and prevent exposure to humidity. Do not allow water to contact the product until time of use to preserve product utility.

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION**8.1 Components with limit values that require monitoring at the workplace:**

Hazardous Components	CAS No.	PEL (OSHA) mg/M ³	TLV (ACGIH) mg/M ³
Silica Sand, crystalline	14808-60-7	0.1	0.025 (resp)
Portland Cement	65997-15-1	5 (resp) 15 (total)	10 (resp)
Fly Ash	68131-74-8	N/A	N/A

8.2 Exposure Controls

Use ventilation adequate to keep exposures below recommended exposure limits.

8.3 General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

8.3a Personal protective equipment**Protection of hands:**

Wear gloves of adequate length to offer appropriate skin protection from splashes. Nitrile, Butyl and PVC gloves have been found to offer adequate protection for incidental contact. Precautions must be observed because burns occur with little warning -- little heat is sensed.

Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses).

Respiratory protection:

A NIOSH-approved dust mask or filtering face piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used

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under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS**General Information**

Appearance	Form: Granular Solid Color: Gray to gray-brown colored Odor: None
pH-value at 20°C (68 °F):	13 (10%)
Boiling point/Boiling range:	Not applicable
Flash point:	Not applicable
Auto igniting:	Product is not self-igniting
Vapor pressure at 21°C (70°F)	Not available
Density at 25°C (77 °F):	2.6 to 3.15

Solubility in / Miscibility with

Water:	Insoluble
VOC content:	0 g/L VOC

SECTION X – STABILITY AND REACTIVITY**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

10.4 Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

10.5 Incompatible materials

Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, or oxygen difluoride may cause fires

10.6 Hazardous Decomposition or By-products

Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas – silicon tetrafluoride.

SECTION XI – TOXICOLOGICAL INFORMATION

11.1 Exposure Routes: Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

11.2 Symptoms related to physical/chemical/toxicological characteristics:

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Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

Skin contact: Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact. Product becomes extremely alkaline when exposed to moisture, and can cause alkali burns and affect the mucous membranes.

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Ingestion: Harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

11.3 Delayed, immediate and chronic effects of short-term and long-term exposure
Short Term

Skin Corrosion/Irritation: Causes severe skin burns.

Serious Eye Damage/Irritation: Causes severe eye damage.

Respiratory Sensitization: Not available

Skin Sensitization: May cause an allergic skin reaction.

Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause respiratory irritation.

Aspiration Hazard: Not available

Long Term

Carcinogenicity: May cause cancer through chronic inhalation.

Germ Cell Mutagenicity: Not available

Reproductive Toxicity: Not available

Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure

Synergistic/Antagonistic Effects: Not available.

SECTION XII – ECOLOGICAL INFORMATION

12.1 Ecotoxicity

May cause long-term adverse effects to the aquatic environment. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential:

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No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Other Adverse Effects

No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method

The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

13.2 Other disposal considerations**Uncleaned packaging**

Recommendation: Disposal must be made in accordance with local, state and federal regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION XIV – TRANSPORT INFORMATION

	DOT (U.S.)	TDG (Canada)
UN-Number	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated
Transport Hazard Class(es)	Not Regulated	Not Regulated
Packing Group (if applicable)	Not Regulated	Not Regulated

14.1 Environmental hazards:

Not Available

14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not available

14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

SECTION XV – OTHER REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical

CEMENT & CONCRETE PRODUCTS™**Canada**

WHMIS Classification: Considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

15.2 US Federal Information**SARA 302/311/312/313 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, 311, 312 or 313.

RCRA: Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

CERCLA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

Emergency Planning and Community Right to Know Act (SARA Title III): Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.

FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

NTP: Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.

OSHA Carcinogen: Crystalline silica (quartz) is not listed.

15.3 State Right to Know Laws**California Prop. 65 Components**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

California Inhalation Reference Exposure Level (REL): California established a chronic REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

15.4 Global Inventories

DSL All components of this product are on the Canadian DSL list.

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TSCA No.: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7. All constituents are listed in the TSCA inventory.

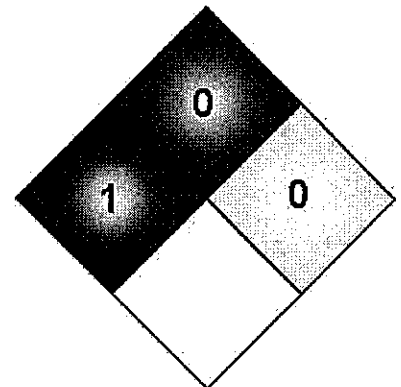
15.5 NFPA Rating

NFPA Rating Explanation Guide

HEALTH HAZARD	FLAMMABILITY HAZARD
4 = Can be lethal 3 = Can cause serious or permanent injury 2 = Can cause temporary incapacitation or residual injury 1 = Can cause significant irritation 0 = No hazard	4 = Will vaporize and readily burn at normal temperatures 3 = Can be ignited under almost all ambient temperatures 2 = Must be heated or high ambient temperature to burn 1 = Must be preheated before ignition can occur 0 = Will not burn

SPECIAL HAZARD	INSTABILITY HAZARD
ALK = Alkaline ACD = Acidic COR = Corrosive OX = Oxidizing RA = Radioactive WV = Reacts violently or explosively with water WVX = Reacts violently or explosively with water and oxidizing	4 = May explode at normal temperatures and pressures 3 = May explode at high temperature or shock 2 = Violent chemical change at high temperatures or pressures 1 = Normally stable, high temperatures make unstable 0 = Stable

This chart for reference only - For complete specifications consult the NFPA 704 Standard



SECTION XVI – OTHER INFORMATION

Last Updated: January 4, 2016

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by

The QUIKRETE® Companies
Phone (800) 282-5828
www.QUIKRETE.com



CEMENT & CONCRETE PRODUCTS™

End of SDS

CONCRETE BONDING ADHESIVE

MATERIAL SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
One Securities Centre
3490 Piedmont Road, Suite 1300
Atlanta, GA 30329

Emergency Telephone Number
(770) 216-9580

Information Telephone Number
(770) 216-9580

MSDS A1
Revision: Aug-11

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION Safety Glasses, Gloves	

QUIKRETE® Product Name **Code #**
CONCRETE BONDING ADHESIVE 9902

Product Use: Liquid bonding agent for bonding new concrete to old concrete

SECTION II - HAZARD IDENTIFICATION

Route(s) of Entry: Inhalation, Ingestion

Acute Exposure: None known

Chronic Exposure: Repeated or prolonged skin contact may result in mild irritation. Vapor may be an irritant to the respiratory tract. Ingestion may cause irritation to the gastrointestinal tract.

Carcinogenicity: Not applicable

Signs and Symptoms of Exposure: None known

Medical Conditions Generally Aggravated by Exposure: None known

Chronic Exposure: None known

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	PEL (OSHA) Mg/m ³	TLV (ACGIH) mg/m ³
Vinyl Acetate Ethylene Co-polymer	Not Hazardous		
Vinyl Alcohol Polymer	Not Hazardous		

SECTION IV – First Aid Measures

Eyes: Immediately flush eye thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids. Call physician immediately.

Skin: Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment if irritation or inflammation develops or persists.

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Inhalation: Remove person to fresh air. Seek medical help if irritation persists.

Ingestion: Treat symptomatically and supportively. Get medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flammability: Noncombustible and not explosive.

Auto-ignition Temperature: Not Applicable

Flash Point: > 212°F

Extinguishing Media: Water Fog; Foam; CO₂; Dry Chemical

Special Firefighting Procedures: Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

Fire & Explosion Hazards: This is a water-based product and presents no particular fire or explosion hazard. Dry polymer film will burn. Product contains low level of organic volatiles which may be emitted at elevated temperatures.

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide, unknown hydrocarbons.

Lower Explosion Limit (%): Not Applicable

Upper Explosion Limit (%): Not Applicable

SECTION VI – ACCIDENTAL RELEASE MEASURES

Absorb spillages onto sand, earth or any suitable absorbent material. Sweep up and shovel into waste drums. Wash the spillage area with water. Washings must be prevented from entering surface water drains. Disposal should be in accordance with local, state or national legislation.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Storage Temperature: 40 – 100°F

Handling/Storage: Avoid extreme temperatures. Protect from freezing. This material should not be spilled, discharged, or flushed into sewers or public waterways. Product contains low level of organic volatiles which could accumulate in the un-vented headspace of drums or bulk storage vessels. Open drums in well-ventilated area, avoid breathing vapors.

SECTION VIII – EXPOSURE CONTROL MEASURES

Engineering Controls: General.

Personal Protection: Wear safety glasses with side shields. Protect against splashing. The use of chemically resistant gloves is recommended. Clothing protection should be worn. Rubber boots and apron should be worn if exposure is severe. Remove contaminated clothing and launder before reuse.

Exposure Limits: Consult local authorities for acceptable exposure limits.

CEMENT & CONCRETE PRODUCTS™**SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS**

Appearance: Milky white liquid	Specific Gravity: 1.0 to 1.2
Melting Point: 32°F (0°C)	Boiling Point: >212°F (100°C)
Vapor Pressure: 17 mm Hg @ 68°F (20°C)	Vapor Density: <1(water)
Odor: vinyl acetate odor	VOC: 1.1 g/L
Evaporation Rate: <1(water)	

Solubility in Water: Water miscible. Dilution with water generally will lower dispersion stability.

SECTION X - REACTIVITY DATA

Stability: Stable.

Incompatibility (Materials to Avoid): Strong oxidizers, materials that react with water

Hazardous Decomposition or By-products: None

Hazardous Polymerization: Will Not Occur.

Condition to Avoid: Protect from temperatures below 40°F to preserve product utility.

SECTION XI – TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Ingestion

Toxicity to Animals:
LD50: Not Available
LC50: Not Available

Chronic Effects on Humans: Not established

Special Remarks on Toxicity: Unlikely to cause harmful effects under recommended conditions of handling and use

SECTION XII – ECOLOGICAL INFORMATION

Ecotoxicity: Not Available

BOD5 and COD: Not Available

Products of Biodegradation: Not available

Toxicity of the Products of Biodegradation: Not available

Special Remarks on the Products of Biodegradation: Ingress to waterways may cause persistent milky turbidity.

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Disposal should be in accordance with local, state or national legislation. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302).

SECTION XIV – TRANSPORT INFORMATION

DOT/UN Shipping Name: Non-regulated

DOT Hazard Class: Non-regulated

Shipping Name: Non-regulated

Non-Hazardous under U.S. DOT and TDG Regulations

SECTION XV – OTHER REGULATORY INFORMATION

SARA (Title III) Section 313: Not subject to reporting requirements

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TSCA (May 1997): All components are on the TSCA inventory list

Federal Hazardous Substances Act: Is a hazardous substance subject to statues promulgated under the subject act

Canadian Environmental Protection Act: Not listed

Canadian WHMIS: Considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and subject to the requirements of WHMIS. This product has been classified according to the hazard criteria of the Controlled Products Regulation (CPR). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

SECTION XVI – OTHER INFORMATION

HMIS-III:	Health –	0 = No significant health risk
		1 = Irritation or minor reversible injury possible
		2 = Temporary or minor injury possible
		3 = Major injury possible unless prompt action is taken
Flammability-	4 = Life threatening, major or permanent damage possible	
	0 = Material will not burn	
	1 = Material must be preheated before ignition will occur	
	2 = Material must be exposed to high temperatures before ignition	
Physical Hazard-	3 = Material capable of ignition under normal temperatures	
	4 = Flammable gases or very volatile liquids; may ignite spontaneously	
	0 = Material is normally stable, even under fire conditions	
	1 = Material normally stable but may become unstable at high temps	
	2 = Materials that are unstable and may undergo react at room temp	
	3 = Materials that may form explosive mixtures with water	
4 = Materials that are readily capable of explosive water reaction		

Abbreviations:

ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
CFR	Code of Federal Regulations
CPR	Controlled Products Regulations (Canada)
DOT	Department of Transportation
IARC	International Agency for Research
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicity Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TWA	Time-weighted Average
WHMIS	Workplace Hazardous Material Information System

**CEMENT & CONCRETE PRODUCTS™**

Revision #10-01, supersedes all previous revisions.

Created: November 15, 2006

Last Updated: August 23, 2011

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

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Material Safety Data Sheet
Gila® Window Film Application and Cleaning Solution
Part #'s: GTA002/GTA002SM/21002/FS200/RTK500/RTK500SM

Colonial Chemical, Inc.
 225 Colonial Drive
 S.Pittsburg, TN 37380

Emergency Telephone #
 423/837-8800
 Chemtrec 800/424-9300

SECTION I – PRODUCT INFORMATION

Product Name:	Gila Window Film Application and Cleaning Solution
File:	1260
Chemical Name:	Na Salt of Dodecylbenzene Sulfonate
C.A.S. No.:	Proprietary
Direct Phone:	423/837-8800

THE CHEMTREC NUMBER IS TO BE CALLED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT INVOLVING CHEMICALS.

SECTION II – HAZARDOUS INGREDIENTS

Toxic & Hazardous Ingredients:	None
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SECTION III – PHYSICAL DATA

Form:	Clear Liquid
Appearance:	Pourable Liquid
Specific Gravity:	(water=1) approx. < 1.08
Boiling Point:	No data available
Melting Point:	N/A
Solubility in Water (Weight %):	Soluble at 25° C
Volatile (Weight %):	N/A
Evaporation Rate:	N/A
Vapor Density:	No data available.
pH (10% Aqueous):	7.2
Stability:	Product is stable under normal conditions.
Viscosity (cps at 25° C):	< 100

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash Point:	> 200°F, Pinsky-Martens closed-cup
Special Fire Fighting Procedures:	Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.
Unusual Fire and Exploding Hazards:	None
Extinguishing Agents:	Dry chemical, water spray, water fog, CO ₂ , foam or sand/earth.

SECTION V – HEALTH HAZARD DATA

Permissible Concentrations (air):	N/A
Chronic Effects of Overexposure:	No data available.
Acute Toxicological Properties:	Eye and skin irritant
Emergency First Aid Procedures:	<p>Eyes - Immediately flush with large quantities of water for at least 15 minutes and call a physician.</p> <p>Skin – Wash contacted area with copious amounts of soap and water. Remove contaminated clothing and launder before reuse. If irritation develops contact physician.</p> <p>Ingestion – contact poison control center or physician immediately.</p> <p>Inhalation – remove to fresh air. If necessary, give oxygen or artificial respiration. Contact physician.</p>

SECTION VI – REACTIVITY DATA

Stability:	Stable under normal conditions.
Hazardous Polymerization:	Will not occur
Hazardous Decomposition Products:	Oxides of carbon and sulfur
Incompatibility:	Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.

SECTION VII – SPILL OR LEAK PROCEDURES

Procedures for Clean-up: Absorb with an inert material such as sand, soil or vermiculite; sweep up and dispose of in accordance with federal, state and local regulations.

Precautions to be taken in handling and storing: Store between 60° F and 120° F.

SECTION VIII – WASTE DISPOSAL METHOD

Waste Disposal: In accordance with all applicable federal, state, and local regulations.

SECTION IX – SPECIAL PROTECTION INFORMATION

Respiratory Protection:	N/A
Ventilation:	Mechanical
Eye Protection:	Chemical safety goggles
Protective Gloves:	Rubber or plastic, solvent resistant
Other Protection:	Neoprene protective type apron

SECTION X – REGULATORY INFORMATION

TSCA:	Listed in TSCA inventory
Sara Title III, Section 313:	None
California Proposition 65:	None
Pennsylvania Worker and Community Right to Know Act. This product contains the following ingredient(s) listed in Appendix A Hazardous Substance List. Sodium dodecylbenzene sulfonate 25155-30-0.	

SECTION XI – TRANSPORTATION INFORMATION

Proper Shipping Name:	Liquid soap, N.O.S.
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DOT Hazard Class: Not regulated

SECTION XII – TOXICOLOGICAL INFORMATION

-CARCINOGENICITY: N/A
-TERATOGENICITY: N/A
-REPRODUCTION: N/A
-MUTAGENICITY: N/A

SECTION XIII – ECOLOGICAL INFORMATION

-BIODEGRADABILITY: YES

The above data is for information purposes only and is accurate to the best of Colonial Chemical, Inc.'s knowledge. No guarantees or liabilities are expressed or implied.

REVISED: 02-05-02

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SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DBC Lime & Mineral Solvent	MANUFACTURER: National Chemicals, Inc.
PRODUCT ID: 4100x	PO Box 32, Winona, MN 55987
PRODUCT USE: Cleaning compound	800-533-0027 or 507-454-5640
EMERGENCY: CALL CHEMTREC 1-800-424-9300	info@NationalChemicals.com

SECTION 2 HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health	Environmental	Physical
Acute Toxicity, oral: Category 4 Skin Corrosion/Irritation: Category 1C Eye Irritation: Category 1		

Hazard Symbols:
Acute Toxicity, oral
Skin Corrosion
Eye Irritation



Signal Word:
DANGER

Hazard Statements	Precautionary Statements
H302: Harmful if swallowed H314: Causes severe skin burns and eye damage	P102: Keep out of reach of children P260: Do not breathe mist, vapors or spray P264: Wash thoroughly after handling P270: Do not eat, drink, or smoke when using this product P280: Wear gloves and eye protection

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration % by Weight
Sulfamic Acid	5329-14-6	10-20%
Glycolic Acid	79-14-1	≤ 10%
Phosphoric Acid	7664-38-2	≤ 10%

Other ingredients are judged to be non-hazardous, their CAS numbers and exact percent of composition are proprietary to National Chemicals, Inc.

SECTION 4 FIRST AID MEASURES

If in Eyes: Immediately call Poison Center or doctor. Rinse cautiously with for several minutes. Remove contact lenses, if present. Continue rinsing.

If on Skin (or hair): Immediately call Poison Center or doctor. Immediately take off contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse.

If Inhaled: Call Poison Center or doctor. Remove person to fresh air and keep comfortable for breathing.

If Swallowed: Immediately call Poison Control or doctor. Rinse mouth. Do NOT induce vomiting.

SECTION 5 FIREFIGHTING MEASURES

Flammable Properties: Not Flammable

Suitable Extinguishing Media: Flood with water for extinguishing agent.

Hazardous Combustion Products: Unknown

Protection for Firefighters: Wear self-contained breathing apparatus and full protective gear, as with any fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate area. Use personal protective equipment. Contain spill with dikes, sandbags, etc.

Environmental Precautions: Do not flush to sewer. This material is acidic and may lower the pH of the surface waters.

Methods For Cleaning Up: Neutralize with alkaline material (soda ash, lime or dilute caustic soda) then absorb with an inert material (vermiculite, dry sand, earth). Flush remaining material with plenty of water.

Avoid inh.
Small am
Sweep up

SECTION 7 HANDLING AND STORAGE

Handling : Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add chemical to water. Never add water to chemical.

Storage: Keep container tightly closed and properly labeled. Store in a cool, dry place. Do not freeze. Do not store in aluminum container or use aluminum fittings or transfer lines. Keep separate from alkalis.

SECTION 8 PRECAUTIONS TO CONTROL EXPOSURE/PERSONAL PROTECTION

Eye Protection: Wear safety glasses with side shields.
Skin Protection: Use neoprene gloves. Always place pant legs over boots. Thoroughly clean and dry contaminated clothing before reuse.
Respiratory: Provide local exhaust ventilation where vapor or mist may be generated.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Liquid
Odor: Odorless
Water Solubility: Soluble
pH: Acidic in Solution
Boiling Point: Greater than 212°F (100 °C)
Freezing Point: Less than 32 °F (0 °C)

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and pressure.
Decomposition: Thermal decomposition products or combustion: hydrogen gas or phosphorus oxides.
Incompatible Materials: Soft metals (i.e. aluminum, zinc) and strong alkalis (i.e. sodium hydroxide, mercuric sulfate, perchloric acid).

SECTION 11 TOXICOLOGICAL INFORMATION

Likely Routes Of Exposure: Eye and skin contact.
Acute Systems And Effects: The severity of the tissue damage is a function of concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur
Eye Contact: Exposure may cause severe burns and permanent damage to eyes.
Skin Contact: Exposure may cause severe burns and permanent tissue damage.
Inhalation: May cause irritation. Extreme exposures may cause burns to respiratory tract, nose, mouth, and throat.
Ingestion: Ingestion may cause internal burns and tissue damage.
Chronic Effects: None known

SECTION 12 ECOLOGICAL INFORMATION

Biodegradation: Not known.
Eco-toxicity: In large quantities, this material may be harmful to aquatic life.

SECTION 13 WASTE DISPOSAL CONSIDERATIONS

Flush spill with plenty of water before disposal. Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

Hazard Class: Not classified as hazardous according to Department of Transportation

SECTION 15 REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt for TSCA Inventory requirements.
SARA TITLE III,
SECTIONS 311/312: ACUTE: Yes CHRONIC: No FIRE: No REACTIVE: No SUDDEN RELEASE: No
SARA TITLE 313: Not regulated

SECTION 16 OTHER INFORMATION

Training Necessary: Yes, training in practices and procedures contained in product literature or on product label
Issue Date: April 28, 2015
Supersedes: June 29, 2010

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.



SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	Salt
Other means of identification	Sodium Chloride Sifto Safe Step Standard Salt Sifto Ice Salt Sifto Sodium Chloride Sifto Safe Step EnviroGuard QwikSalt Ice-A-Way IceAway Turbo IceAway Turbo Blue Safe Step 3300 Aspen Aspen Blue Safe Step 4300 Dual Blend Safe Step 4300 Dual Blend Blue EconoBlend 370 Winter Storm Winter Storm Blue Safe Step Pro Series 550 Safe Step Pro Series 570 Safe Step 6300 Enviro Blend Safe Step Pro Series 960 Choice Formula Safe Step Sure Paws Sifto Safe Step Sure Paws American Stockman Animal Nutrition Products Nature's Own water care products Sure Soft water care products Natural Salt water care Pro Soft water care products
Recommended use	De-icer. General industrial and water softening/conditioning purposes. Animal Nutrition.
Recommended restrictions	None known.
Manufacturer	Compass Minerals International 9900 West 109th Street, Suite 100 Overland Park, KS 66210 US Phone 913-344-9200 Emergency US CHEMTREC 1-800-424-9300 Emergency Canada CANUTEC 1-800-996-6666
CHEMTREC	1-800-424-9300
CANUTEC	1-800-996-6666

2. Hazards Identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The product and/or mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials, i.e, strong oxidizing agents (see Section 10)
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/Information on Ingredients

Salt and/or Salt Mixtures

Composition comments

The criteria for listing components in this section are: Carcinogens, Respiratory Sensitizers, Mutagens, Teratogens and Reproductive toxins are listed when present at 0.1% or greater; components which are otherwise hazardous according to WHMIS/OSHA are listed when present at 1.0% or greater. Non hazardous components are not listed. The products pertaining to this SDS have various proportions of components which do not meet the listing criteria.

4. First Aid Measures

Inhalation

Avoid breathing dust. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact

Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If ingestion of a large amount does occur, seek medical attention.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire Fighting Measures

Suitable extinguishing media

Salt and salt mixtures are non-combustible.

Unsuitable extinguishing media

Not applicable.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Use appropriate firefighting PPE as a general precaution.

Fire-fighting equipment/instructions

Salt is not combustible and is thus not the material of concern for firefighting equipment or methods.

Specific methods

In the event of a fire, equipment and methods that are consistent with the combusting material should be utilized.

General fire hazards

No unusual fire or explosion hazards noted.

Hazardous combustion products

Chlorine. Hydrogen chloride. Oxides of sodium.

Explosion data

Sensitivity to mechanical impact

Not available.

Sensitivity to static discharge

Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Restrict area to facilitate clean up.

Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. Prevent direct entry into waterways and sewers. Following product recovery, flush area with water if necessary. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid direct release into waterways and sewers.

7. Handling and Storage

Precautions for safe handling

Use care in handling/storage. Avoid breathing dust.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials, i.e, strong oxidizing agents (see Section 10)

8. Exposure Controls/Personal Protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls	TWA PEL: No specific limits have been established for sodium chloride (a soluble substance). As a guideline, OSHA (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates Not Otherwise Regulated (PNOR): 5mg/cu.m. Respirable Dust 8-Hour TWA PEL, 15mg/cu.m. Total Dust 8-Hour TWA PEL.
	TWA TLV: No specific limits have been established for sodium chloride (a soluble substance). As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates (insolubles) Not Otherwise Classified (PNOC): 10mg/cu.m. Inhalable Particulate 8-Hours TWA TLV, 3mg/cu.m. Respirable Particulate TWA TLV.
	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Safety glasses if eye contact is possible.
Skin protection	
Hand protection	If there is constant skin contact, rubber gloves are recommended.
Other	Wear suitable protective clothing.
Respiratory protection	No personal respiratory protective equipment normally required.
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment.

9. Physical and Chemical Properties

Appearance	Crystalline.
Physical state	Solid.
Form	Solid.
Color	Varies
Odor	Odorless
Odor threshold	Not applicable
pH	6 - 8 (Neutral)
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Not applicable
Pour point	Not applicable
Specific gravity	Not applicable
Partition coefficient (n-octanol/water)	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable
Flammability limit - upper (%)	Not applicable
Explosive limit - lower (%)	Not applicable
Explosive limit - upper (%)	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	Not applicable
Solubility(ies)	Not available.
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable

10. Stability and Reactivity

Reactivity	None known.
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Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Contact with incompatible materials, i.e strong oxidizing agents.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Chlorine gas. Hydrogen chloride. Oxides of sodium.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity	Not classified.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.

Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

Chronic effects Not classified.

Further information This product has no known adverse effect on human health.

Name of Toxicologically Synergistic Products Not available.

12. Ecological Information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Mobility in general Not available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers in accordance with applicable regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)
Not regulated as dangerous goods.
Transportation of Dangerous Goods (TDG - Canada)
Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
WHMIS status Not Controlled

US federal regulations

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
Not regulated.
- CERCLA Hazardous Substance List (40 CFR 302.4)**
Not listed.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
Not regulated.
- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

- Hazard categories**
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
- SARA 302 Extremely hazardous substance** No
- SARA 311/312 Hazardous chemical** No
- SARA 313 (TRI reporting)**
Not regulated.

Other federal regulations

- Safe Drinking Water Act (SDWA)** Not regulated.
- Food and Drug Administration (FDA)** Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

- US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**
Not listed.
- US. Massachusetts RTK - Substance List**
Not regulated.
- US. Pennsylvania RTK - Hazardous Substances**
Not regulated.

US. Rhode Island RTK

Not regulated.

Inventory status

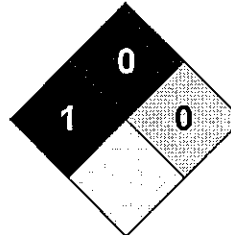
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	X



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

29-August-2014

Effective date

01-August-2014

Expiry date

01-August-2017

Further information

Not available.

Prepared by

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.



Safety Data Sheet

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Document Group:	24-2136-0	Version Number:	9.00
Issue Date:	02/19/14	Supersedes Date:	10/01/12

SECTION 1: Identification

1.1. Product identifier

3M™ Bondo Red Cream Hardener 307, 913, 913M, 913C, 913ES, 928, 928C, 9307, 7653079, 810505D, 510506D, 810507D

Product Identification Numbers

LB-K100-0415-4, LB-K100-0415-5, LB-K100-0415-6, LB-K100-0415-7, LB-K100-0540-4, LB-K100-1155-2, 41-0003-6615-7, 41-0003-6674-4, 41-0003-6682-7, 60-4550-4812-8, 60-4550-4999-3, 60-4550-5166-8, 60-4550-5582-6, 60-4550-5584-2, 70-0080-0037-7, 70-0080-0039-3, 70-0080-0147-4, 70-0080-0164-9, 70-0080-0172-2, 70-0080-0173-0, 70-0080-0174-8, 70-0080-0704-2, 70-0080-0705-9, 70-0080-0706-7

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Catalyst for Automotive Body Fillers

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1.

2.2. Label elements

Signal word
Warning

Symbols

Flame | Exclamation mark |

Pictograms



Hazard Statements

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep away from clothing and other combustible materials.

Keep only in original container.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Storage:

Protect from sunlight.

Store at temperatures not exceeding 32C/90F. Keep cool.

Store away from other materials.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Not applicable

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *

Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters

No unusual fire or explosion hazards are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Iron Oxide (FE2O3)	1309-37-1	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):5 mg/m3	
Iron Oxide (FE2O3)	1309-37-1	US Dept of Labor - OSHA	TWA(as fume):10 mg/m3	
ROUGE	1309-37-1	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
STEARATES	557-05-1	Amer Conf of Gov. Indust. Hyg.	TWA:10 mg/m3	
Zinc Stearate	557-05-1	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	Amer Conf of Gov. Indust. Hyg.	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Benzoyl Peroxide	94-36-0	Amer Conf of Gov. Indust. Hyg.	TWA:5 mg/m3	
Benzoyl Peroxide	94-36-0	US Dept of Labor - OSHA	TWA:5 mg/m3	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists
 American Indust. Hygiene Assoc : American Industrial Hygiene Association

Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines
US Dept of Labor - OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

Wear respiratory protection if ventilation is inadequate to prevent overexposure. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
Odor threshold	No Data Available
pH	No Data Available
Melting point	No Data Available
Boiling Point	No Data Available
Flash Point	111 °C [Test Method: Estimated]
Evaporation rate	No Data Available
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Density	1.2 g/cm ³

Specific Gravity	1.2 [@ 25 °C] [Ref Std: WATER=1]
Solubility in Water	Negligible
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Hazardous Air Pollutants	0 % weight [Test Method: Calculated]
Volatile Organic Compounds	0 lb/gal [Test Method: calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 g/l [Test Method: calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [Test Method: calculated per CARB title 2]
Percent volatile	20 % [Details: Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [Test Method: calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Accelerators

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Human and	Sensitizing

Iron Oxide (FE2O3)	animal Human	Some positive data exist, but the data are not sufficient for classification
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Respiratory Sensitization

Name	Species	Value
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Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to female reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to male reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system hematopoietic system liver nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks

Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL .005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL .001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	All data are negative	Rat	NOAEL .5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart endocrine system respiratory system	All data are negative	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (Fe2O3)	Inhalation	pulmonary fibrosis pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
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Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities. This product has been classified on the basis that it is stable as sold. Material may become unstable if allowed to dry out. Classify appropriately before disposal.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	30 - 60

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 1 Special Hazards: Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 2 Flammability: 1 Physical Hazard: 1 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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PRODUCT NAME: 3M™ Bondo(r) Home Solutions™ All Purpose Putty, 20052, 20054
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 10/13/09
Supersedes Date: 11/19/08

Document Group: 24-8185-1

ID Number(s):

60-4550-5004-1, 70-0080-0307-4, 70-0080-0308-2

This product is a kit or a multipart product which consists of multiple, independently packaged components. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page. The document numbers of the MSDSs for components of this product are:

24-6634-0, 24-8194-3

Revision Changes:

Copyright was modified.

Kit: Component document group number(s) was modified.

Page Heading: Product name was modified.

Kit: Product name was modified.

Kit: ID Number Heading was added.

Kit: ID Number(s) was added.

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ Bondo(r) Home Solutions™ All Purpose Putty, 20052, 20054 Part A
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket

ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 04/14/10
Supersedes Date: 04/23/09

Document Group: 24-6634-0

Product Use:
Intended Use: Automotive

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
LIMESTONE	1317-65-3	15 - 40
Unsaturated Polyester Resin	Trade Secret	15 - 40
STYRENE MONOMER	100-42-5	10 - 30
TALC	14807-96-6	10 - 30
MAGNESIUM CARBONATE	546-93-0	5 - 10
SODIUM SILICATE	1344-09-8	3 - 7
QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOW ALKYL)DIMETHYL, SALTS WITH MONTMORILLONITE	68911-87-5	1 - 5
QUARTZ SILICA	14808-60-7	<= 0.49947

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste
Odor, Color, Grade: Thick fibrous paste, styrene odor
General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Contains a chemical or chemicals which can cause cancer. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:

Pneumoconiosis: Signs/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause:

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
QUARTZ SILICA	14808-60-7	Grp. I: Carcinogenic to humans	International Agency for Research on Cancer
QUARTZ SILICA	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
STYRENE MONOMER	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	80 °F - 82 °F [<i>Test Method: Closed Cup</i>]
Flash Point	26.67 - 27.78 °C [<i>Test Method: SETAFLASH</i>]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
OSHA Flammability Classification:	Class IC Flammable Liquid

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures:

Place in a metal container approved for transportation by appropriate authorities. Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. No smoking while handling this material. Avoid breathing of vapors, mists or spray. Avoid static discharge. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors. Do not breathe dust. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact. Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields
Indirect Vented Goggles

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Polyvinyl Alcohol (PVA)

Polyethylene/Ethylene Vinyl Alcohol

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors. Do not breathe dust.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters

. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
LIMESTONE	OSHA	TWA, respirable fraction	5 mg/m3	
LIMESTONE	OSHA	TWA, as total dust	15 mg/m3	
MAGNESIUM CARBONATE	OSHA	TWA, respirable fraction	5 mg/m3	
MAGNESIUM CARBONATE	OSHA	TWA, as total dust	15 mg/m3	
QUARTZ SILICA	ACGIH	TWA, respirable fraction	0.025 mg/m3	
QUARTZ SILICA	OSHA	TWA concentration, respirable	0.1 mg/m3	
QUARTZ SILICA	OSHA	TWA concentration, as total dust	0.3 mg/m3	
STYRENE MONOMER	ACGIH	TWA	20 ppm	
STYRENE MONOMER	ACGIH	STEL	40 ppm	
STYRENE MONOMER	OSHA	TWA	100 ppm	
STYRENE MONOMER	OSHA	CEIL	200 ppm	
TALC	ACGIH	TWA, respirable fraction	2 mg/m3	
TALC	CMRG	TWA, as respirable dust	0.5 mg/m3	
TALC	OSHA	TWA concentration, respirable	0.1 mg/m3	
TALC	OSHA	TWA concentration, as total dust	0.3 mg/m3	
TALC	OSHA	TWA	20 millions of particles/cu. ft.	

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	Thick fiberous paste, styrene odor
General Physical Form:	Liquid
Autoignition temperature	<i>No Data Available</i>
Flash Point	80 °F - 82 °F [<i>Test Method:</i> Closed Cup]
Flash Point	26.67 - 27.78 °C [<i>Test Method:</i> SETAFLASH]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	293.00 °F [<i>Details:</i> CONDITIONS: (Styrene)]
Density	9.5126 lb/gal
Density	1.14 g/ml
Vapor Density	<i>No Data Available</i>
Vapor Pressure	5.2 mmHg [<i>Details:</i> CONDITIONS: at 20 C]
Specific Gravity	1.14
pH	<i>No Data Available</i>
Melting point	<i>No Data Available</i>
Solubility in Water	Nil
Evaporation rate	<i>No Data Available</i>
Volatile Organic Compounds	1.54 lb/gal [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> Excluding exempt cmpds]
Volatile Organic Compounds	184.33 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> Excluding exempt cmpds]
Volatile Organic Compounds	16.17 % [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> Excluding exempt cmpds]
Volatile Organic Compounds	525.57 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> European VOC Content]
Kow - Oct/Water partition coef	<i>No Data Available</i>
Percent volatile	21.03 %
VOC Less H2O & Exempt Solvents	185.03 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1]

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:**10.1 Conditions to avoid**

None known

10.2 Materials to avoid

Strong acids

Strong bases

Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	Not Specified
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Styrene Oxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

LB-K100-0502-9, LB-K100-0534-4

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
STYRENE MONOMER	100-42-5	10 - 30

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	SEQ677	**Carcinogen

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 3 Reactivity: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are

presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Reason for Reissue: The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

Revision Changes:

Copyright was modified.

Section 8: Eye/face protection information was modified.

Section 8: Skin protection - recommended gloves information was modified.

Section 8: Respiratory protection - recommended respirators information was modified.

Section 9: Property description for optional properties was modified.

Section 2: Ingredient table was modified.

Section 8: Exposure guidelines ingredient information was modified.

Section 3: Carcinogenicity table was modified.

Section 15: California proposition 65 ingredient information was modified.

Section 5: OSHA flammability heading was added.

Section 5: OSHA flammability data was added.

Section 10.1 Conditions to avoid heading was added.

Section 10.2 Materials to avoid heading was added.

Section 6: Environmental procedures information was added.

Section 6: Methods for cleaning up information was added.

Section 10: Materials to avoid physical property was added.

Section 10: Conditions to avoid physical property was added.

Section 6: Release measures information was deleted.

Section 10: Materials and conditions to avoid physical property was deleted.

Section 8: Exposure guidelines legend was deleted.

Section 8: Exposure guideline note was deleted.

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Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ Bondo(r) Home Solutions (BHS) White Cream Hardener
MANUFACTURER: 3M
DIVISION: Construction and Home Improvement Markets

ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 08/12/09
Supersedes Date: 11/19/08

Document Group: 24-8194-3

Product Use:

Intended Use: Hardener for Fillers sold to consumers for repair of rotted wood based building materials such as windows, doors, etc.

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
BENZOYL PEROXIDE	94-36-0	30 - 60
WATER	7732-18-5	10 - 30
BENZOIC ACID, C9-11-BRANCHED ALKYL ESTERS	131298-44-7	10 - 20
ZINC STEARATE	557-05-1	3 - 7
OXIRANE, POLYMER WITH METHYLOXIRANE, MONOBUTYL ETHER	9038-95-3	3 - 4
CALCIUM SULFATE	7778-18-9	3 - 4

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Viscous

Odor, Color, Grade: Red paste with slight ester odor

General Physical Form: Solid

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Dust clouds of this material in combination with an ignition source may be explosive. May cause allergic skin

reaction.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Prolonged or repeated exposure may cause:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	Not Applicable
Flammable Limits - LEL	Not Applicable
Flammable Limits - UEL	Not Applicable

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Dust clouds of this material in combination with an ignition source may be explosive.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. Contain spill. Avoid contact with incompatible materials listed in the Reactivity Data Section. Collect as much of the spilled material as possible using non-sparking tools. Use wet sweeping compound or water to avoid dusting. Sweep up. Clean up residue. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Cover, but do not seal for 48 hours. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid eye contact with dust or airborne particles.

7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed. Do not heat under confinement to avoid risk of explosion

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Polyethylene/Ethylene Vinyl Alcohol. Use an additional glove (e.g. supported PVC or Nitrile) over the PE/EVAL glove, and change the over-glove frequently.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
BENZOYL PEROXIDE	ACGIH	TWA	5 mg/m3	Table A4
BENZOYL PEROXIDE	OSHA	TWA	5 mg/m3	Table Z-1
CALCIUM SULFATE	ACGIH	TWA, inhalable fraction	10 mg/m3	
CALCIUM SULFATE	OSHA	TWA, respirable	5 mg/m3	Table Z-1
CALCIUM SULFATE	OSHA	TWA, as total dust	15 mg/m3	Table Z-1
STEARATES	ACGIH	TWA, as total dust	10 mg/m3	Table A4
ZINC STEARATE	ACGIH	TWA	10 mg/m3	
ZINC STEARATE	ACGIH	STEL	20 mg/m3	
ZINC STEARATE	OSHA	TWA, respirable	5 mg/m3	Table Z-1
ZINC STEARATE	OSHA	TWA, Vacated, as dust	10 mg/m3	
ZINC STEARATE	OSHA	TWA, as total dust	15 mg/m3	Table Z-1

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists
 CMRG: Chemical Manufacturer Recommended Guideline
 OSHA: Occupational Safety and Health Administration
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
General Physical Form:	Solid
Autoignition temperature	No Data Available
Flash Point	Not Applicable
Flammable Limits - LEL	Not Applicable
Flammable Limits - UEL	Not Applicable
Boiling point	[Details: Decomposes]
Density	No Data Available
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Specific Gravity	1.2 [@ 25 °C] [Ref Std: WATER=1]
pH	No Data Available
Melting point	No Data Available
Solubility in Water	Negligible
Evaporation rate	Not Applicable
Hazardous Air Pollutants	0 % weight
Volatile Organic Compounds	0 g/l [Test Method: calculated SCAQMD rule 443.1] [Details: excluding exempt compounds]
Percent volatile	20 % [Details: Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [Test Method: calculated SCAQMD rule 443.1]
Viscosity	No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable. Stable unless exposed to heat, flames and drying conditions.

Materials and Conditions to Avoid: Accelerators, dimethylaniline, cobalt naphthenate and other promoters, reducing agents, or any hot materials.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate uncured product in a permitted hazardous waste incinerator in the presence of a combustible material.

As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D003 (Reactive)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

LB-K100-0534-6, LB-K100-0534-7, LB-K100-0534-8, LB-K100-0534-9, LB-K100-0540-5, 70-0080-0309-0

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ZINC STEARATE (ZINC COMPOUNDS)	557-05-1	3 - 7
BENZOYL PEROXIDE	94-36-0	30 - 60

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 2 Reactivity: 1 Special Hazards: Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:

Section 1: Product name was modified.

Section 1: Division name was modified.

Copyright was modified.

Section 8: Skin protection - recommended gloves information was modified.

Page Heading: Product name was modified.

Section 8: Skin protection comment was added.

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3M MSDSs are available at www.3M.com

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Revision Number: 006.1

Issue date: 03/25/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite Polyseamseal 100% Silicone Sealant	IDH number:	1508975
Product type:	Silicone	Item number:	1508975
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information: Telephone: +1 (800) 624-7767 MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887		

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1



Precautionary Statements

Prevention:	Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.
Response:	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*

Distillates (petroleum), hydrotreated middle	64742-46-7	5 - 10
Silicon dioxide	7631-86-9	5 - 10
Substituted Silane	Proprietary	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Acetic acid	64-19-7	0.1 - 1

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
Skin contact:	Wipe off paste with paper towel or cloth. Wash with soap and water. If skin irritation persists, call a physician.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
Ingestion:	Do not induce vomiting. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Symptoms:	See Section 11.
Notes to physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	None
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Oxides of carbon. Formaldehyde. Oxides of silicon.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Store in a partly filled, closed container until disposal. Spilled material will solidify. Scrape up as much material as possible. Maintain good ventilation for large spills.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.
Storage:	Keep container closed. Store in a dry area below 90° F.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Distillates (petroleum), hydrotreated middle	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist.	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Substituted Silane	None	None	None	None
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 PEL Total dust.	None	None
Acetic acid	15 ppm STEL 10 ppm TWA	10 ppm (25 mg/m3) PEL	None	None

Engineering controls:	Ensure adequate ventilation, especially in confined areas. Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye/face protection:	Safety goggles or safety glasses with side shields.
Skin protection:	Use of Butyl or Nitrile Rubber gloves is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste
Color:	White
Odor:	Acetic acid
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	< 10 mm hg (68 °F (20°C))
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.01 at 20 °C (68°F)
Vapor density:	Heavier than air.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	4 % (acetic acid)
Flammable/Explosive limits - upper:	19.9 % (acetic acid)
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Polymerises in presence of water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	3 %; 30 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Formaldehyde. Oxides of carbon. Oxides of silicon. Acetic acid is liberated slowly upon contact with moisture.
Incompatible materials:	Bases. Oxidizing agents. Water Acids.
Reactivity:	Not available.
Conditions to avoid:	Prolonged heating at temperatures above 150 °C. Exposure to moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation:	When heated to temperatures exceeding 300° F (150° C) in the presence of air, silicones may form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate the eyes, nose and throat. Safe handling conditions may be maintained by keeping formaldehyde vapor concentrations below the OSHA permissible limit. Acetic acid produced during cure may irritate eyes, nose and throat.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	Not expected to be harmful by ingestion. Not expected under normal conditions of use.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Distillates (petroleum), hydrotreated middle	None	Irritant
Silicon dioxide	Oral LD50 (RAT) = > 22,500 mg/kg	Nuisance dust
Substituted Silane	None	Irritant, Allergen
Titanium dioxide	None	Irritant, Respiratory, Some evidence of carcinogenicity
Acetic acid	Oral LD50 (RABBIT) = 1,200 mg/kg Oral LD50 (RAT) = 3.53 g/kg Oral LD50 (RAT) = 3.31 g/kg Dermal LD50 (RABBIT) = 1,060 mg/kg Inhalation LC50 (RAT, 4 h) = 11.4 mg/l	Allergen, Corrosive, Eyes, Gastrointestinal, Immune system, Irritant, Kidney

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Distillates (petroleum), hydrotreated middle	No	No	No
Silicon dioxide	No	No	No
Substituted Silane	No	No	No
Titanium dioxide	No	Group 2B	No
Acetic acid	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.