Rhodorsil® RTV-1556

Addition Cure Silicone Elastomer

Description

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Rhodorsil® RTV-1556

Storage and shelf life

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Mixing Guidelines

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Rhodorsil® RTV-1556

Mixed Processing Properties will be affected by temperature Variations

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EUROPE	NORTH AMERICA	LATIN AMERICA	ASIA PACIFIC
Bluestar Silicones France *21 Avenue Georges Pompidou* *F69486 Lyon Cedex 03* *FRANCE* *Tel. (33) 4 72 13 19 00* *Fax (33) 4 72 13 19 88*	*Bluestar Silicones USA* *CN 3000,* *8 Cedar Brook Drive,* *Cranbury, NJ 08512-3000* *Tel. (1) 609 860 3100* *Fax (1) 609 860 8078*	*Bluestar Silicones Brazil Ltda.* *Av. Maria Coelho Aguiar, 215* *Bloco B - 2o.andar - Parte 1* *CEP 05804-902-Sao Paulo/SP* *Brazil* *Tel. (55) 11 3741 8860* *Fax (55) 11 3741 7718*	*Bluestar Silicones Hong Kong Trading Co. Ltd.* *Unit C, 18/F Manulife Tower* *169 Electric Road* *North Point-Hong Kong* *Tel. (852) 3106 8200* *Fax (852) 2979 0241*

BLUESTAR SILICONES

HEALTH	**1**
FLAMMABILITY	**0**
REACTIVITY	**0**

MATERIAL SAFETY DATA SHEET
Prepared by Duro Dyne April 15, 2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade name: DURO DYNE WATER BASED ADHESIVE
Product Identifier: WIT-1, WIT-5, WIT-55
Item #: 5056, 5057, 5058
Supplier Details: DURO DYNE CORPORATION
81 Spence Street
Bay Shore, NY 11706
Information Phone No: 800-899-3876
Emergency Phone No: 800-424-9300 (**CHEMTREC**)

2. HAZARDS IDENTIFICATIONS

Emergency Overview: Not classified as hazardous.
Physical State: Liquid
Color: White
Odor: Slight
Relevant Routes of Exposure: Skin, Eyes, Inhalation

Potential Health Effects
Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system**.**
Skin Contact: Prolonged and/or repeated skin contact may result in mild irritation or redness.
Eye Contact: May cause slight irritation to eyes on contact.
Ingestion: May cause gastrointestinal tract irritation if swallowed. Not expected under normal conditions of use.

Existing Conditions Aggravated by Exposure: None known.
This material is not considered hazardous by the OSHA Hazard Communication Standard (29CFR 1910.1200).
See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components: None
CAS #: None
%: None

4. FIRST AID AND EMERGENCY MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
Skin Contact:	Wash with soap and water. If symptoms develop and persist, get medical attention.
Eye Contact:	If irritation develops, flush eye immediately with large amounts of water. If irritation persists, seek medical attention or advice.
Ingestion:	Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting. If symptoms develop and persist, get medical attention. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point:	>100.00°C (>212°F) Closed cup
Auto ignition Temperature:	Not applicable
Flammable/Explosive Limits-Lower:	Not applicable
Flammable/Explosive Limits-Upper:	Not applicable
Extinguishing Media:	Use extinguishing measures appropriate to local circumstances and the surrounding environment. Water spray or fog. Foam. Carbon dioxide. Dry chemical.
Special Fire Fighting Procedures:	Fire fighters should wear full-face; self- contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.
Unusual Fire and Explosion Hazards:	This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a moderate fire hazard. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous Combustion Products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

6. ACCIDENTAL RELEASE MEASURE

	Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Environmental Precautions:	No special environmental precautions required. Do not allow material to contaminate ground water system.
Clean Up Methods:	Take up with liquid-absorbing material (sand). Wash spillage site thoroughly with soap and water or detergent solution. Dispose of according to Federal, State and local government regulations.

7. HANDLING AND STORAGE

Handling: 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 unvented headspace of drums of bulk storage vessels. Open drums in well ventilated area. Avoid breathing vapors. Do not wear contact lenses.

Storage: For safe storage, store between 5.0°C (41°F) and 40.0°C (104°F). Below temperature limit the product properties will change. Keep container closed. Keep from freezing. Keep in a cool place.
For safe storage, store between 1°C (33.8°F) and 37°C (98.6°F). Below temperature limit the product will be irreversibly damaged and no longer usable. Above temperature limit the product properties change.
For information on product shelf life, please review labels on container.

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 COMPONENTS	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
None	None	None	None	None

Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. General room ventilation is usually adequate.

Respiratory Protection: Under normal conditions, respirator is not normally required. If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

Eye/Face Protection: Wear safety glasses with side shields. Do not wear contact lenses.

Skin Protection: Use of protective coveralls and long sleeves is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Color:	White
Odor:	Slight.
Odor Threshold:	Not available
PH:	4.0-6.0
Vapor Pressure:	17.5000000 mm hg (20.0°C (68°F)
Boiling Point/Range:	>100.00º C (>212°F)
Melting Point/Range:	0.0°C (32°F)(Freezing Point)
Solubility in Water:	Miscible
Partition Coefficient (n-octanol/water):	N/A
Specific Gravity:	1.1800
Vapor Density:	>1.0000 (Air=1)
Flash Point:	>100.00°C (>212°F) Closed Cup
Flammable/Explosive Limits-Lower:	Not applicable
Flammable/Explosive Limits-Upper:	Not applicable
Auto Ignition Temperature:	Not applicable
Evaporation Rate:	1.00 Same as water
Solubility in Water:	Miscible
Partition Coefficient (n-octanol/water):	Not available
VOC Content:	<3.0% (by weight)

10. STABILITY AND REACTIVITY

Stability:	Stable.
Hazardous Reactions:	Will not occur.
Hazardous Decomposition Products:	Under decomposition, this product emits carbon monoxide, carbon dioxide and/or molecular hydrocarbons.
Incompatible Materials:	This product may react with strong oxidizing agents.
Conditions to Avoid:	Freezing. Product may be unstable if frozen.

11. TOXICOLOGICAL INFORMATION

Hazardous Components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
None	None	None	None

Hazardous Components	Health Effects / Target Organs
None	None

12. ECOLOGICAL INFORMATION

Ecological Information: No data available.

13. DISPOSAL CONCIDERATIONS

Information provided is for unused product only.

Recommended Method of Disposal: Follow all local, state, federal and provincial regulations for disposal. This product is not a RCRA hazardous waste when discarded. Processing, use, or contamination of this product may change the hazard classification and waste management options.

Hazardous Waste Number: None identified.

14. TRANSPORTATION INFORMATION

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. REAGULATORY 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 minimus
CERCLA/SARA Section 302 EHS: None above reporting minimus
CERCLA/SARA Section 311/312: None
CERCLA/SARA Section 313: None above reporting minimus
California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Records as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

WHMIS Hazard Class: Not controlled

16. OTHER INFORMATION

Date MSDS Prepared: January 26, 2010

Hazard Rating: Health: 1
Flammability: 0
Reactivity: 0

MATERIAL SAFETY DATA SHEET

ISSUE DATE: 5/4/98
REVISED DATE: 6/22/12
Supersedes: Any Previous M.S.D.S. On This Product
EMERGENCY PHONE NUMBER: CHEM-TEL, INC. 1-800-255-3924

I. IDENTIFICATION

PRODUCT NAME: PROtack/PROtack HV
PRODUCT CLASS: Water Based Duct Liner Adhesive

DUCTMATE INDUSTRIES, INC.
210 5th St.
Charleroi, PA 15022

II. HAZARDOUS INGREDIENTS

REPORTING REQUIREMENTS:
OSHA Hazard Communication Standard (29CFR1910.1200) hazard class……..….None
EPA SARA Title III Section 312 (40CFR370) hazard class……..None
EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis" level are….None
CALIFORNIA PROP 65 substances listed by the State of California under the "Safe Drinking Water and Toxic Enforcement Act of 1986". No such substances are present in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

III. PHYSICAL DATA

APPEARANCE: Grey Liquid
SOLUBILITY IN WATER: Dilutable
BOILING POINT: 100°C / 212°F
WEIGHT PER GALLON: 9.5 ± .2 lbs./gallon
VOLATILE BY WEIGHT: 60% ± 2% (Water)
VAPOR DENSITY: Heavier than Air.
EVAPORATION RATE: Slower than Ether.
ODOR: Mild
PHYSICAL STATE: Liquid
Ph: 8 to 9.5
VOC CONTENT: 40 g/L EPA Method 24

IV. HEALTH AND FIRST AID

CAUTION: May cause discomfort in eyes. Prolonged or repeated contact with skin may cause dryness.
IN EYES: Flush with water for 15 minutes.
ON SKIN: Wash with soap and water.
INGESTED: Seek medical attention.
INHALATION: No effects expected. If difficulty breathing occurs remove to fresh air and consult physician.

V. FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASS (OSHA/NFPA): None.
FLASH POINT: >212°F PM Closed Cup
EXTINGUISHING MEDIA: Water or dry type extinguisher.
UNUSUAL FIRE HAZARD: Containers may burst when exposed to extreme heat.
FIRE FIGHTING PROCEDURES: Firemen should wear equipment to protect against noxious fumes. Self contained breathing apparatus may be needed.
PRODUCT OF COMBUSTION: May yield Carbon Monoxide and/or Carbon Dioxide.

VI. SPILL OR LEAK PROCEDURES

Dike area to prevent spill from spreading. Collect spilled material in salvage container. Small amounts may be absorbed into appropriate absorbents. Prevent spill from entering sewers, drains, and waterways.
Dispose of product in accordance with applicable local, state, and federal regulations.

VII. SPECIAL PROTECTION

VENTILATION: Provide sufficient ventilation to maintain constant fresh air in workplace.
EYE PROTECTION: Use safety goggles when splash potential exists.
HAND PROTECTION: Protective impervious gloves are recommended.
OTHER: A clean source of water should be available for washing eyes and skin.

VIII. TRANSPORTATION INFORMATION

Non-flammable, as a Latex compound
U.S.A.: Regulation by the following: DOT, IMO, ICAD/IATA: None
Canada: Regulation by the following: DSL, WHMIS: None
European: EEC SYMBOL: None
EEC Classification, Packaging and Labeling of Dangerous Substances: None
TSCA 12(b) Export Notification Requirement: TSCA 12(b) Export Notification Requirement: All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.
Acrylic Acid residual monomer CAS# 79-10-7

IX. REACTIVITY DATA

STABILITY: Stable under normal conditions of handling and use.
INCOMPATIBILITY: Products may react violently with products that react with water.
HAZARDOUS DECOMPOSITION: Fumes produced when heated to decomposition may include: oxides of carbon, nitrogen, and sulfur along with hydrocarbon residues.
HAZARDOUS POLYMERIZATION: Will not occur.

X. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in tightly closed containers, at temperatures 45°F to 90°F. Guard against inhalation of excess vapors, ingestion, and contact with skin and eyes. Change soiled workclothes frequently. Clean hands after handling. Precautions also apply to emptied containers. Keep containers away from extreme heat and cold. Prevent from freezing, but if product is allowed to freeze, thaw completely before use.

This information is taken from sources or based upon data believed to be reliable; however, DUCTMATE INDUSTRIES, INC. makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist, as all materials may present unknown health hazards.

MATERIAL SAFETY DATA SHEET

ISSUE DATE: 1/7/98
REVISED DATE: 6/22/12
Supercedes: Any previous M.S.D.S. on this product
EMERGENCY TELEPHONE NUMBER: CHEM-TEL, INC 1-800-255-3924

I. IDENTIFICATION

PRODUCT NAME: **Proseal/Fiberseal**
PRODUCT CLASS: Water Based Duct Sealant (Caulking)

DUCTMATE INDUSTRIES, INC.
210 5th St
Charleroi, PA 15022

II. HAZARDOUS INGREDIENTS

REPORTING REQUIREMENTS:
OSHA Hazard Communication Standard (29CFR1910.1200) hazard class…….….None
EPA SARA Title III Section 312 (40CFR370) hazard class……..None
EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis" level are….None
CALIFORNIA PROP 65 substances listed by the State of California under the "Safe Drinking Water and Toxic Enforcement Act of 1986". No such substances are present in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

III. PHYSICAL DATA

APPEARANCE: Gray caulking
SOLUBILITY IN WATER: Dilutable
BOILING POINT: 100°C / 212°F
WEIGHT PER GALLON: 11 ± .2 lbs/gallon
VOLATILE BY WEIGHT: 34% ± 2% (Water)
VAPOR DENSITY: Heavier than Air.
EVAPORATION RATE: (BAC = 1) Less than 1
ODOR: Mild
PHYSICAL STATE: Paste
Ph: 8 to 9.5
VOC CONTENT: 41 g/L (PROseal) 21 g/L (FIBERseal) EPA Method 24

IV. HEALTH HAZARD DATA

CAUTION: May cause discomfort in eyes. Prolonged or repeated contact with skin may cause dryness.
IN EYES: Flush with water for 15 minutes.
ON SKIN: Wash with soap and water.
INGESTED: Seek medical attention.
INHALATION: No effects expected. If difficulty breathing occurs remove to fresh air and consult physician.

V. EMERGENCY AND FIRST AID

FLAMMABILITY CLASS (OSHA/NFPA): None.
FLASHPOINT: >212°F PM Closed cup
EXTINGUISHING MEDIA: Water or dry type extinguisher.
UNUSUAL FIRE HAZARD: Containers may burst when exposed to extreme heat.
FIRE FIGHTING PROCEDURES: Firemen should wear equipment to protect against noxious fumes. Self contained breathing apparatus my be needed
PRODUCT OF COMBUSTION: May yield Carbon Monoxide and/or Carbon Dioxide.

VI. SPILL OR LEAK PROCEDURES

Collect spilled material in salvage container. Small amounts may be absorbed into appropriate absorbents. Prevent spill from entering sewers, drains, and waterways.
Dispose of product in accordance with applicable local, state, and federal regulations.

VII. SPECIAL PROTECTION

VENTILATION: Provide sufficient ventilation to maintain constant fresh air in workplace.
EYE PROTECTION: Use safety goggles when splash potential exists.
HAND PROTECTION: Protective impervious gloves are recommended.
OTHER: A clean source of water should be available for washing eyes and skin.

VIII. REGULATORY INFORMATION

Non-flammable, as a Latex compound
U.S.A.: Regulation by the following: DOT, IMO, ICAD/IATA: None
Canada: Regulation by the following: DSL, WHMIS: None
European: EEC SYMBOL: None
EEC Classification, Packaging and Labeling of Dangerous Substances: None
TSCA 12(b) Export Notification Requirement: All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.

IX. REACTIVITY DATA

STABILITY: Stable under normal conditions of handling and use.
INCOMPATIBILITY: Products may react violently with products that react with water.
HAZARDOUS DECOMPOSITION: Fumes produced when heated to decomposition may include: oxides of carbon, nitrogen, and sulfur along with hydrocarbon residues.
HAZARDOUS POLYMERIZATION: Will not occur.

X. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in tightly closed containers at temperatures 45°F to 90°F. . Guard against inhalation of excess vapors, ingestion, and contact with skin and eyes. Change soiled workclothes frequently. Clean hands after handling. Precautions also apply to emptied containers. Keep containers away from extreme heat and cold. Prevent from freezing, but if product is allowed to freeze, thaw completely before use.

This information is taken from sources or based upon data believed to be reliable; however, DUCTMATE INDUSTRIES, INC. makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist, as all materials may present unknown health hazards.

MATERIAL SAFETY DATA SHEET

SECTION 01 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Chemical Name: **NUFLEX® 302 GENERAL PURPOSE SILICONE SEALANT**

Manufacturer: **NUCO INC.**
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099
Infotrac 24 Hour Emergency Tel: (800)-535-5053

Date: **May 1, 2011**
Prepared by: **Technical Services Department**
WHMIS Classification: **D2A, D2B**
Product Use: **Silicone Sealant and Adhesive**

SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS:

Ingredients	CAS No.	%	LD50 (Oral-Rat)	LC50 (Inhalation-Rat)
Amorphous Silica	7631-86-9	7.0 – 13.0	3,160 mg/kg	> 0.139 mg/L (4 hr)
Methyl Triacetoxysilane	4253-34-3	1.0 – 5.0	1,600 mg/kg	Not available
Ethyl Triacetoxysilane	17689-77-9	1.0 – 5.0	1,460 mg/kg	Not available
Octamethylcyclotetrasiloxane	556-67-2	0.1 – 1.0	1,540 mg/kg	36 mg/L (4 hr)
Pigmented sealants may contain:				
Carbon Black	1333-86-4	0.1 – 1.0	14,400 mg/kg	Not available
Titanium Dioxide	13463-67-7	0.1 – 1.0	24,000 mg/kg	Not available
Pigment Blue 15	147-14-8	1.0 – 5.0	>10,000 mg/kg	Not available
Iron Oxide	1309-37-1	1.0 – 5.0	Not available	Not available

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555 or 29 CFR 1910.1200

SECTION 03 – HAZARDS INDENTIFICATION:

ROUTES OF ENTRY INTO THE BODY (ACUTE EFFECTS):

Eyes: **Direct contact may cause moderate irritation.**

Skin: **May cause moderate irritation.**

Inhalation: **Irritates respiratory passages very slightly. If material is heated or vapor generated, care should be taken to prevent inhalation. If high vapor concentrations are attained then central nervous system depression may occur, characterized by drowiness, dizziness, confusion or loss of coordination.**

Ingestion: **Low ingestion hazard in normal use.**

WHMIS HAZARD SYMBOL(S):

SECTION 04 - FIRST AID MEASURES:

Eyes: **Flush with copious quantities of lukewarm water. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately.**

Skin: **Remove contaminated clothing. Wash thoroughly with warm water and non-abrasive soap. Seek medical attention if you feel ill or a reaction develops.**

Inhalation: **Remove to fresh air and provide water. Seek medical attention if you feel ill or a reaction develops.**

Ingestion: **Get medical attention.**

SECTION 05 - FIRE FIGHTING MEASURES:

Flammable Conditions:	**Avoid direct sources of heat or ignition in uncured state.**
Extinguishing Media:	**Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers**
Fire Fighting Measures:	**Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.**
Flash Point:	**Not applicable**
Flammability Limits:	**Lower Explosion Limit - not available** **Upper Explosion Limit - not available**
Autoignition Temperature:	**Not available**
Hazardous Decomposition Products:	**Carbon oxides, silicone dioxide, metal oxides, formaldehyde, and traces of incompletely burned carbon products.**
Sensitivity - Impact:	**None**
Static:	**None**

SECTION 06 – ACCIDENTAL RELEASE MEASURES:

Containment / Clean Up:	**Restrict access to the area of the spill. Provide ventilation, NIOSH/MHSA approved respirator and protective clothing. Scrape up sealant and place in container for disposal. Clean area as appropriate since silicone materials can represent a slip hazard. Cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.**

SECTION 07 – HANDLING AND STORAGE:

Handling and Storage:	**Store in an adequately ventilated area under dry conditions between 50°F (10°C) to 77°F (25°C) and keep container tightly sealed when not in use.**

SECTION 08 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Component Exposure Limits:	**Amorphous Silica (CAS# 7631-86-9): Although the silica is coated with the silicone sealant observe the particulate limits. OSHA PEL: TWA 80 mg/m^3 / SiO_2 . NIOSH REL: TWA 6 mg/m^3.** **Methyl Triacetoxysilane (CAS# 4253-34-3) forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.** **Ethyl Triacetoxysilane (CAS# 17689-77-9) forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.** **Octamethylcyclotetrasiloxane (CAS# 556-67-2): Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.** **Pigmented Sealants: Carbon Black (CAS# 1333-86-4): Although the carbon black is coated with the silicone sealant observe the particulate limits. OSHA PEL and ACGIH TLV: TWA 3.5 mg/m^3. Titanium Dioxide (CAS# 13463-67-7): Although the titanium dioxide is coated with the silicone sealant observe the particulate limits. OSHA PEL: TWA 15 mg/m^3. ACGIH TLV: TWA 10 mg/m^3. Iron Oxide (CAS# 1309-37-1): Although the iron oxide is coated with the silicone sealant observe the particulate limits. OSHA PEL: TWA 10 mg/m^3; ACGIH TLV: TWA 5 mg/m^3 respirable fraction. Pigment Blue 15 (CAS# 147-14-8): Although the pigment blue 15 is coated with the silicone sealant observe copper dust limits. OSHA PEL: TWA 1 mg/m^3; ACGIH TLV: TWA 1 mg/m^3 .**
Respiratory:	**Use respiratory protection unless local exhaust ventilation is provided or exposures are within guidelines.**
Ventilation:	**In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels within guidelines.**

Personal Protective Equipment:	**Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield (R)), coveralls or apron are important in preventing contamination of eyes, skin and clothing. Wash thoroughly after handling.**

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	**Paste**
Odor and Appearance:	**Acetic acid / thixotropic sealant**
Odor Threshold:	**Not available**
Specific Gravity:	**1.01**
Vapor Pressure:	**Not available**
Vapor Density:	**Not available**
Evaporation Rate:	**Not available**
Boiling Point:	**Not available**
Freezing Point:	**Not available**
pH (ASTM D1293):	**3.2**
Acid Reserve, g NaOH/100 g (CCCR 2001, Sections 43 and 44):	**0.17**
Coeff. Oil/Water Distribution:	**Not available**

SECTION 10 – STABILITY AND REACTIVITY:

Chemical Stability:	**Stable**
Incompatible Materials:	**Strong oxidizing agents or electrophiles (e.g. ferric chloride). Concentrated acids or bases can degrade the silicone polymer.**
Reactive Conditions:	**Moisture and incompatible materials.**
Hazardous Polymerization:	**Will not occur.**

SECTION 11 - TOXICOLOGICAL INFORMATION:

Effects of overexposure:	**Acetic acid vapors may irritate eyes, nose and throat. Direct contact with eyes and skin will irritate. Pigmented Sealants: Although the carbon black (CAS# 1333-86-4) is encapsulated by the silicone sealant, prolonged overexposure to carbon black dust causes lung fibrosis. Although the titanium dioxide (CAS# 13463-67-7) is encapsulated by the silicone sealant, prolonged overexposure to titanium dioxide dust causes tightness pain in the chest, coughing and difficulty breathing.**
Sensitization:	**No known applicable information.**
Carcinogenicity:	**No ingredients considered by IARC, NTP or OSHA to be carcinogens except in the pigmented sealants which may contain: Carbon Black (CAS# 1333-86-4): IARC Group 2B – possibly carcinogenic to humans. Titanium Dioxide (CAS# 13463-67-7): IARC Group 2B – possibly carcinogenic to humans.**
Reproductive Toxicity:	**Evidence of reproductive effects in laboratory animals when exposed to Octamethylcyclotetrasiloxane (CAS# 556-67-2) by inhalation at concentrations of 500 ppm or higher for 70 days prior to mating.**
Teratogenicity:	**No effects observed in laboratory animals when exposed to Octamethylcyclotetrasiloxane (CAS# 556-67-2) by inhalation at concentrations up to 700 ppm.**
Mutagenicity:	**No known applicable information.**
Synergistic Products:	**No known applicable information.**

SECTION 12 – ECOLOGICAL INFORMATION:

Air:	**Complete information is not yet available.**
Water:	**Complete information is not yet available.**
Soil:	**Complete information is not yet available.**

SECTION 13 – DISPOSAL CONSIDERATIONS:

Waste Disposal:	**Dispose in accordance with Federal, State / Provincial and local regulations.**

SECTION 14 - TRANSPORT INFORMATION:

Shipping Information:	**Not subject to DOT, TDG, IMDG Code or IATA Regulations.**

SECTION 15 - REGULATORY INFORMATION:

TSCA Inventory Status:	**Chemical components listed on TSCA inventory except as exempted.**
NFPA Profile:	**Health 2, Flammability 1, Reactivity 0**
SARA TITLE III Chemical Listings:	**Section 302 Extremely Hazardous Substances (40 CFR 355): None** **Section 304 CERCLA Hazardous Substances (40 CFR 302): None** **Section 311 / 312 Hazard Class (40 CFR 370): Acute: Yes; Chronic: No; Fire: No; Pressure: No; Reactive: No** **Section 313 Toxic Chemicals (40 CFR 372): None present or none present in regulated quantities.**
State Substance List:	**This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: amorphous silica (CAS# 7631-86-9); methyl triacetoxysilane (CAS# 4253-34-3); ethyl triacetoxysilane (CAS# 17689-77-9); dimethylsiloxane, hydroxy terminated (CAS# 70131-67-8); isoparaffinic hydrocarbon (CAS# 64742-46-7); and may contain carbon black (CAS# 1333-86-4); titanium dioxide (CAS# 13463-67-7); pigment blue 15 (CAS# 147-14-8), and iron oxide (CAS# 1309-37-1).**
California Proposition 65 List:	**No known applicable information.**
Volatile Organic Content:	**30 grams per liter, <3% by weight (Chemically Curing Sealants and Caulks – CARB Method 310: VOC less water, less exempt compounds and LVP-VOCs).**
Domestic Substance List:	**Chemical components listed on DSL except as exempted.**

SECTION 16 - OTHER INFORMATION:

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.

Form: MSDSNUFLEX302GENERALPURPOSESILICONESEALANT Rev.: 6 Date: 05/11

MATERIAL SAFETY DATA SHEET

SECTION 01 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Chemical Name: **NUFLEX® 302 HIGH TEMPERATURE GASKET MAKING SILICONE SEALANT**

Manufacturer: **NUCO INC.**
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099
Infotrac 24 Hour Emergency Tel: (800)-535-5053

Date: **July 1, 2008**
Prepared by: **Technical Services Department**
WHMIS Classification: **D2A, D2B**
Product Use: **Silicone Sealant**

SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS:

Ingredients	CAS No.	%	LD50 (Oral-Rat)	LC50 (Inhalation-Rat)
Amorphous Silica	7631-86-9	7.0 – 13.0	3,160 mg/kg	> 0.139 mg/L (4 hr)
Methyl Triacetoxysilane	4253-34-3	1.0 – 5.0	1,600 mg/kg	Not available
Ethyl Triacetoxysilane	17689-77-9	1.0 – 5.0	1,460 mg/kg	Not available
Octamethylcyclotetrasiloxane	556-67-2	0.1 – 1.0	1,540 mg/kg	36 mg/L (4 hr)

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555 or 29 CFR 1910.1200

SECTION 03 – HAZARDS INDENTIFICATION:

ROUTES OF ENTRY INTO THE BODY (ACUTE EFFECTS):

Eyes: **Direct contact may cause moderate irritation.**
Skin: **May cause moderate irritation.**
Inhalation: **Irritates respiratory passages very slightly. If material is heated or vapor generated, care should be taken to prevent inhalation. If high vapor concentrations are attained then central nervous system depression may occur, characterized by drowiness, dizziness, confusion or loss of coordination.**
Ingestion: **Low ingestion hazard in normal use.**

WHMIS HAZARD SYMBOL(S):

SECTION 04 - FIRST AID MEASURES:

Eyes: **Flush with copious quantities of lukewarm water. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately.**
Skin: **Remove contaminated clothing. Wash thoroughly with warm water and non-abrasive soap. Seek medical attention if you feel ill or a reaction develops.**
Inhalation: **Remove to fresh air and provide water. Seek medical attention if you feel ill or a reaction develops.**
Ingestion: **Get medical attention.**

SECTION 05 - FIRE FIGHTING MEASURES:

Flammable Conditions: **Avoid direct sources of heat or ignition in uncured state.**
Extinguishing Media: **Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers**

Fire Fighting Measures:		**Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.**
Flash Point:		**Not applicable**
Flammability Limits:		**Lower Explosion Limit - not available** **Upper Explosion Limit - not available**
Autoignition Temperature:		**Not available**
Hazardous Decomposition Products:		**Carbon oxides, silicone dioxide, metal oxides, formaldehyde, and traces of incompletely burned carbon products.**
Sensitivity -	**Impact:**	**None**
	Static:	**None**

SECTION 06 – ACCIDENTAL RELEASE MEASURES:

Containment / Clean Up:	**Restrict access to the area of the spill. Provide ventilation, NIOSH/MHSA approved respirator and protective clothing. Scrape up sealant and place in container for disposal. Clean area as appropriate since silicone materials can represent a slip hazard. Cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.**

SECTION 07 – HANDLING AND STORAGE:

Handling and Storage:	**Store in an adequately ventilated area under dry conditions between 50°F (10°C) to 77°F (25°C) and keep container tightly sealed when not in use.**

SECTION 08 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Component Exposure Limits:	**Amorphous Silica (CAS# 7631-86-9): Although the silica is coated with the silicone sealant observe the particulate limits. OSHA PEL: TWA 80 mg/m^3 / SiO_2 . NIOSH REL: TWA 6 mg/m^3.** **Methyl Triacetoxysilane (CAS# 4253-34-3) forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.** **Ethyl Triacetoxysilane (CAS# 17689-77-9) forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.** **Octamethylcyclotetrasiloxane (CAS# 556-67-2): Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.**
Respiratory:	**Use respiratory protection unless local exhaust ventilation is provided or exposures are within guidelines.**
Ventilation:	**In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels within guidelines.**
Personal Protective Equipment:	**Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield (R)), coveralls or apron are important in preventing contamination of eyes, skin and clothing. Wash thoroughly after handling.**

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	**Paste**
Odor and Appearance:	**Acetic acid /red or black thixotropic sealant**
Odor Threshold:	**Not available**
Specific Gravity:	**1.01**
Vapor Pressure:	**Not available**
Vapor Density:	**Not available**
Evaporation Rate:	**Not available**
Boiling Point:	**Not available**
Freezing Point:	**Not available**
pH:	**Not available**

Coeff. Oil/Water Distribution:	**Not available**

SECTION 10 – STABILITY AND REACTIVITY:

Chemical Stability:	**Stable**
Incompatible Materials:	**Strong oxidizing agents or electrophiles (e.g. ferric chloride). Concentrated acids or bases can degrade the silicone polymer.**
Reactive Conditions:	**Moisture and incompatible materials.**
Hazardous Polymerization:	**Will not occur.**

SECTION 11 - TOXICOLOGICAL INFORMATION:

Effects of overexposure:	**Acetic acid vapors may irritate eyes, nose and throat. Direct contact with eyes and skin will irritate.**
Sensitization:	**No known applicable information.**
Carcinogenicity:	**No ingredients considered by IARC, NTP or OSHA to be carcinogens except in the Black Sealant: Carbon Black (CAS# 1333-86-4): IARC Group 2B – possibly carcinogenic to humans.**
Reproductive Toxicity:	**Evidence of reproductive effects in laboratory animals when exposed to Octamethylcyclotetrasiloxane (CAS# 556-67-2) by inhalation at concentrations of 500 ppm or higher for 70 days prior to mating.**
Teratogenicity:	**No effects observed in laboratory animals when exposed to Octamethylcyclotetrasiloxane (CAS# 556-67-2) by inhalation at concentrations up to 700 ppm.**
Mutagenicity:	**No known applicable information.**
Synergistic Products:	**No known applicable information.**

SECTION 12 – ECOLOGICAL INFORMATION:

Air:	**Complete information is not yet available.**
Water:	**Complete information is not yet available.**
Soil:	**Complete information is not yet available.**

SECTION 13 – DISPOSAL CONSIDERATIONS:

Waste Disposal:	**Dispose in accordance with Federal, State / Provincial and local regulations.**

SECTION 14 - TRANSPORT INFORMATION:

Shipping Information:	**Not subject to DOT, TDG, IMDG Code or IATA Regulations.**

SECTION 15 - REGULATORY INFORMATION:

TSCA Inventory Status:	**Chemical components listed on TSCA inventory except as exempted.**
NFPA Profile:	**Health 2, Flammability 1, Reactivity 0**
SARA TITLE III Chemical Listings:	**Section 302 Extremely Hazardous Substances (40 CFR 355): None** **Section 304 CERCLA Hazardous Substances (40 CFR 302): None** **Section 311 / 312 Hazard Class (40 CFR 370): Acute: Yes; Chronic: No; Fire: No; Pressure: No; Reactive: No** **Section 313 Toxic Chemicals (40 CFR 372): None present or none present in regulated quantities.**
State Substance List:	**This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: amorphous silica (CAS# 7631-86-9); methyl triacetoxysilane (CAS# 4253-34-3); ethyl triacetoxysilane (CAS# 17689-77-9); dimethylsiloxane, hydroxy terminated (CAS# 70131-67-8); and isoparaffinic hydrocarbon (CAS# 64742-46-7).**
California Proposition 65 List:	**No known applicable information.**
Volatile Organic Content:	**32 grams per liter (0.27 lb/gallon), 3.17% by weight (CARB Method 310).**
Domestic Substance List:	**Chemical components listed on DSL except as exempted.**

SECTION 16 - OTHER INFORMATION:

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.

MATERIAL SAFETY DATA SHEET
338, FSK

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name	33□, □□□
Product Description	□□□□er □ased □ress□re □e□s□□□e □d□es□□e
Manufacturer/Supplier	□err□ □as□□s □□r□□ra□□□, □a□es a□d □□a□□□s □□□s□□□
Address	□□ □□r□e □ar□□a□
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Phone Number	□□00□□□□□□□□9 □M□□da□ □ □rda□ □□00 a□ □□ □□00 □□ □
Chemtrec Number	□□00□□□□9300
Revision Date:	□□□□ □9, □00□
MSDS Date:	□□□e 1, □00□

Safety Data Sheet according to EC directive 2001/58/EC and OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

EU Main Hazards
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Routes of Entry
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Carcinogenic Status
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Target Organs
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Health Effects - Eyes
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Health Effects - Skin
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Health Effects - Ingestion
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Health Effects - Inhalation
□r□□□□□ed, re□ea□ed □□□a□a□□□□ □□ad□es□□e □a□ □a□se d□□□□□ess, dr□□s□□ess a□d res□ra□□r□ □rr□a□□□□□

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#/Codes	Concentration	R Phrases	Classification
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□ea□□ □□dr□rea□ed □a□□□□e□□□ d□s□□a□es □□e□r□e□□ □	□□□□□□□□□□□□ □3□ □□□□1□□□0	□3□	□□□	□, □ar□□□a□□

4. FIRST AID MEASURES

Eyes
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4. FIRST AID MEASURES

Skin
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Ingestion
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Inhalation
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Advice to Physicians
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5. FIRE - FIGHTING MEASURES

Extinguishing Media
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Unusual Fire and Explosion Hazards
Ma□re□ease □a□ard□□s □a□□rs d□r□□□ a □re□

Protective Equipment for Fire-Fighting
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6. ACCIDENTAL RELEASE MEASURES

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7. HANDLING AND STORAGE

□ee□ a□a□ r□□ □ea□a□d s□□r□es □□□□□□□□□□□□□ra□e area s□□□d □e□□□□□□ □dr□ □□e□□e□□a□ed □ a□a□ r□□ □□□□ □a□□e □a□er□s

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards
□□□□s□re □□ □s are □s□ed □e□□, □□□e□e□s□□
Polymers and resins
□□□e es□a□□s□ed
Hydrotreated Heavy Naphthalene Distillate
□□□e es□a□□s□ed
Engineering Control Measures
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Respiratory Protection
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Hand Protection
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Eye Protection
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Body Protection
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	□a□□□□ □□□ □□sed □□a□□ □□□□ s□□□ □□□ □e □□re □□a□ed □□□□ a □ress□re se□s□□□e ad□es□e a□d □□ed □□□ re□ease □a□er
Color	□□er □a□e □□□ a □ear a□ □er □□□ad□es□e a□d □□□e □□er
Odor	□□□□□
pH	□□□a□□□□a□e
Specific Gravity	□□da□a a□a□a□e
Boiling Range/Point (°C/F)	□□□a□□□□a□e
Melting Point (°C/F)	□□□a□□□□a□e
Flash Point (PMCC) (°C/F)	□□□□□□□□
Explosion Limits (%)	□□da□a a□a□a□e
Vapor Pressure	□□□a□□□□a□e
Density	□□da□a□
VOC (g/l)	□1 □□□
Solubility in Water	□□□□□□□□
Vapor Density (Air = 1)	□□□a□□□□a□e

10. STABILITY AND REACTIVITY

Stability
□□a□e □□der □□r□a□□□□d□□□□s□

Conditions to Avoid
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Materials to Avoid
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Hazardous Polymerization
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Hazardous Decomposition Products
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11. TOXICOLOGICAL INFORMATION

Acute Toxicity
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Chronic Toxicity/Carcinogenicity
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Genotoxicity
□□s □r□d□□□s □□□e□□e□ed □□ □a□se a□□ □ □a□e□□□e□□e□s□

Reproductive/Developmental Toxicity
□□s □r□d□□□s □□□e□□e□ed □□ □a□se ad□erse re□r□d□□□□e e□e□s□

12. ECOLOGICAL INFORMATION

Mobility
□□re□e□a□□s□□d□es □de□□□ed□

Persistence/Degradability
□□re□e□a□□s□□d□es □de□□□ed□

Bio-accumulation
□□re□e□a□□s□□d□es □de□□□ed□

12. ECOLOGICAL INFORMATION

Ecotoxicity

[illegible]

13. DISPOSAL CONSIDERATIONS

[illegible]

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	[illegible]
UN Proper Shipping Name	[illegible]
UN Class	[illegible]
UN Number	[illegible]
UN Packaging Group	[illegible]
Classification for AIR Transportation (IATA)	[illegible]

15. REGULATORY INFORMATION

EU Label Information

[illegible]

EC Annex I Classification

[illegible]

R phrases

[illegible]

S phrases

[illegible]

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

[illegible]

EINECS Listing

[illegible]

DSL (Canadian) Listing

[illegible]

MA Right To Know Law

[illegible]

PA Right To Know Law

[illegible]

NJ Right To Know Law

[illegible]

California Proposition 65

[illegible]

15. REGULATORY INFORMATION

SARA Title III Sect. 311/312 Categorization

SARA Title III Sect. 313

16. OTHER INFORMATION

NFPA Ratings

HMIS Ratings

Abbreviations

For further Information email:

Prepared By:

material

disposal

MATERIAL SAFETY DATA SHEET

MSDS 0011

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
RectorSeal No. 5

PRODUCT CODES
25112, 25191, 25271, 25300, 25431, 25551, 25552, 25631, 25633, 25780, 25790, 25793

CHEMICAL FAMILY
Organic

USE
Pipe Thread Sealant

HMIS CODES

Health	1
Flammability	2
Reactivity	0
PPI	B

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

DATE OF VALIDATION
January 9, 2013

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

DATE OF PREPARATION
January 9, 2013

Section 2 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
OSHA Hazards
Combustable
TARGET ORGANS
Not Classified
GHS CLASSIFICATION
PHYSICAL HAZARDS
Combustable liquid (Category 4)
HEALTH HAZARDS
Acute Toxicity:
Oral: Not Classified
Dermal: Not Classified
Inhalation: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/Eye Irritation: Not Classified
Skin Sensitization: Not Classified
Respiratory Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: See Section 11
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Not Classified
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements
Pictogram: Harmful / Irritant
Signal Word: Warning
Hazard Statements
H303 - May be harmful if swallowed.
H313 - May be harmful in contact with skin.
H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness.
Precautionary Statements
P102 - Keep out of reach of children.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/Bond container and receiving equipment
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P362 - Take off contaminated clothing and wash before reuse.
EUH066 - Repeated exposure may cause skin dryness or cracking
Precautionary Statements - EU No. 1272/2008

SUMMARY OF ACUTE HAZARDS
Irritation to eyes, nose and throat; drowsiness, narcosis, tremors and other CNS effects at high concentration.
ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS
INHALATION

Nasal and respiratory irritation, dizziness, narcosis, headache, nausea, CNS depression and unconsciousness.

EYE CONTACT

Watering, blurred vision, inflammation and irritation which can result in corneal injury.

SKIN CONTACT

Irritation, dermatitis.

INGESTION

Nausea, vomiting; CNS depression; irritation of gastrointestinal tract, liver and peritoneal wall; lung congestion.

SUMMARY OF CHRONIC HAZARDS

Skin irritation and dermatitis. Possible liver and kidney damage.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver or kidneys may have increased susceptibility to excessive exposures.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Diacetone Alcohol
PERCENTAGE BY WEIGHT: 20-30
CAS NUMBER: 123-42-2
EC# : 204-626-7

Section 4 -- FIRST AID MEASURES

If INHALED:	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
If on SKIN:	Wash with soap and water. If irritation occurs, seek medical attention.
If in EYES:	Flush eyes with large amounts of water for 15 minutes. Get medical attention.
If SWALLOWED:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

EXTINGUSING MEDIA

Foam, dry chemical, carbon dioxide or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible - moderate flash point. Vapors heavier than air and may travel along the ground or to low spots at considerable distances to a source of ignition resulting in potential flashback. Burning liquid may float on water. Heat may build up pressure and rupture containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Use absorbent materials to prevent footing hazard and to contain. Ventilate area with natural or explosion-proof, forced air ventilation. Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing and respiratory protection during cleanup.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use. Do not store near heat, sparks, or open flames.

OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	UNITS
Diacetone Alcohol	
ACGIH TLV	50 ppm
OSHA PEL	50 ppm

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.

VENTILATION - LOCAL EXHAUST: Acceptable

SPECIAL: Explosion-proof equipment.

MECHANICAL (GENERAL): Preferable

OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Chemical splash goggles (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	322 F (161 C) @ 760mm Hg
SPECIFIC GRAVITY (H20 = 1):	1.38
VAPOR PRESSURE (mm Hg):	0.3 @ 68 F (20 C)
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	1.1
EVAPORATION RATE (ETHYL ACETATE = 1):	0.14
APPEARANCE/ODOR:	Yellow Paste/Mild Odor
SOLUBILITY IN WATER:	23%
VOLATILE ORGANIC COMPOUNDS(VOC)Content (Theoretical Percentage By Weight):	23% or (317 g/L)
Flash POINT	150 F (65 C) SETA CC
LOWER EXPLOSION LIMIT	N/D
UPPER EXPLOSION LIMIT	N/D

Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Heat, sparks, open flames, and strong oxidizing. Temperatures above 500 F (260 C).
INCOMPATIBILITY (MATERIALS TO AVOID): Gaseous oxygen, strong oxidizing materials, molten alkali metals.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2 and fragmented hydrocarbons.
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredients in this product is an IARC, NTP or OSHA Lister carcinogen.

TOXICOLOGY DATA
Ingredient Name

Diacetone Alcohol		
	Oral-Rat	LD50:4000 mg/kg
	Inhalation-Human	TCLo: 100 ppm

Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

Diacetone Alcohol		
	Food Chain Concentration Potential	N/A
	WATERFOWL TOXICITY	N/A
	BOD	N/A
	AQUATIC TOXICITY	N/A

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste
Disposal Method: Approved landfill
Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

Section 14 -- TRANSPORTATION INFORMATION

DOT:	Non-Regulated
OCEAN (IMDG):	Non-Regulated
AIR (IATA):	Non-Regulated
WHMIS (CANADA):	Non-Regulated

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA
Ingredient Name

Diacetone Alcohol		
	SARA 313	N/A
	TSCA Inventory	Yes
	CERCLA RQ	N/A

RCRA Code N/A

Section 16 -- OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001

MATERIAL SAFETY DATA SHEET

MSDS 0671

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Pete 602L Low VOC

PRODUCT CODES
55101, 55105, 55107, 55310, 55922, 55924, 55926, 55928, 55916

CHEMICAL FAMILY
Organic

USE
PVC Solvent Cement

HMIS CODES

Health	2
Flammability	3
Reactivity	1
PPI	B

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

DATE OF VALIDATION
April 19, 2012

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

DATE OF PREPARATION
April 19, 2012

Section 2 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
OSHA Hazards
Flammable liquid, Target Organ Effect, Irritant
TARGET ORGANS
Liver, KidneyLiver, Kidney
GHS CLASSIFICATION
PHYSICAL HAZARDS: Flammable Liquid, Category 2
HEALTH HAZARDS
Acute Toxicity:
Oral: Category 4
Dermal: Category 5
Inhalation: Category 4
Skin Corrosion/Irritation: Category 3
Serious Eye Damage/Eye Irritation: Category 2A
Skin Sensitization: Not Classified
Respiratory Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: See Section 11
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Category 3
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements
Pictogram: Flammable, Harmful / Irritant
Signal Word: Danger
Hazard Statements:
H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed.
H313 - May be harmful in contact with skin.
H316 - Causes mild skin irritation.
H318 - Causes serious eye damage.
H319 - Causes serious eye irritation
H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness.
Precautionary Statements:
P102 - Keep out of reach of children.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/Bond container and receiving equipment
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P362 - Take off contaminated clothing and wash before reuse.
EUH066 - Repeated exposure may cause skin dryness or cracking
Precautionary Statements - EU No. 1272/2008

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R phrases mentioned in this Section, see Section 16
Symbol(s) Xi - Irritant

F - Highly flammable
R -phrase(s)
R11 - Highly flammable
R36 - Irritating to eyes
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapors may cause drowsiness and dizziness
R-code(s) F;R11 - Xi;R36 - R66 - R67

SUMMARY OF ACUTE HAZARDS

Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION

Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratorytract and to other mucous membranes.

EYE CONTACT

Severely irritating. If not removed promptly, will injure eye tissue, which can result in permanent damage.

SKIN CONTACT

Frequent or prolonged contact may irritate and cause dermatitis. Low order of toxicity.

INGESTION

Low order of toxicity. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

SUMMARY OF CHRONIC HAZARDS

Repeated or prolonged exposure may cause signs of central nervous system depression and respiratory irritation. This material has been shown to induce tumors in laboratory animals.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

==========

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Methyl Ethyl Ketone
PERCENTAGE BY WEIGHT: 1-12
CAS NUMBER: 78-93-3
EC# : 606-002-00-3

INGREDIENT: Tetrahydrofuran
PERCENTAGE BY WEIGHT: 40-60
CAS NUMBER: 109-99-9
EC# : 603-025-00-0

INGREDIENT: Cyclohexanone
PERCENTAGE BY WEIGHT: 8-18
CAS NUMBER: 108-94-1
EC# : 606-010-00-7

INGREDIENT: Acetone
PERCENTAGE BY WEIGHT: 5-20
CAS NUMBER: 67-64-1
EC# : 200-662-2

==========

Section 4 -- FIRST AID MEASURES

If INHALED:	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
If on SKIN:	Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing.
If in EYES:	Immediately flush with large amounts of water for at least 15 minutes. Get prompt medical attention.
If SWALLOWED:	If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

==========

Section 5 -- FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

SUITABLE EXTINGUISHING MEDIA

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Wear self contained breathing apparatus for fire fighting if necessary.

HAZARDOUS COMBUSTION PRODUCTS
  Hazardous decomposition products formed under fire conditions. - Carbon oxides
FURTHER INFORMATION
  Use water spray to cool unopened containers.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Extremely flammable - very low flash point. Vapors are heavier than air and may travel along ground or to low spots at considerable distance to a source of ignition resulting in potential flashback. Burning liquid may float on water. Heat may build up pressure and rupture closed containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
  Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area with natural or explosion-proof, forced air ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
ENVIRONMENTAL PRECAUTIONS
  Prevent further leakage or spillage if safe to do so. Avoid flushing into sewers, drains, waterways, and soil.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP
  Use absorbent materials to prevent footing hazard and to contain, then collect and place in container for disposal according to local regulations (see section 13).

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
    Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Avoid prolonged or repeated contact with skin or clothing. If transferring this material to other containers, ground all containers to avoid static electricity buildup and discharge which may ignite flammable vapors.
CONDITIONS FOR SAFE STORAGE
  Do not store near heat, sparks, or open flames.
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain residues and vapors; treat as if full and observe all products precautions. Do not reuse empty containers.
KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT		UNITS
Methyl Ethyl Ketone		
	ACGIH TLV	200 ppm
	OSHA PEL	200 ppm
	STEL	300 ppm
Tetrahydrofuran		
	ACGIH TLV	50 ppm
	OSHA PEL	200 ppm
	STEL	250 ppm
Cyclohexanone		
	ACGIH TLV	20 ppm (skin)
	OSHA PEL	50 ppm
Acetone		
	ACGIH TLV	500 ppm
	OSHA PEL	1000 ppm
	STEL	750 ppm

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.
VENTILATION - LOCAL EXHAUST: Acceptable
SPECIAL: Explosion-proof equipment.
MECHANICAL (GENERAL): Preferable
OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Chemical splash goggles (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	151 F (66 C) @ 760mm Hg
SPECIFIC GRAVITY (H20 = 1):	0.91
VAPOR PRESSURE (mm Hg):	129 @ 68 F (20 C)
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	2.5
EVAPORATION RATE (ETHYL ACETATE = 1):	8-14.5

APPEARANCE/ODOR: Liquid/Pungent Odor
SOLUBILITY IN WATER: 30%
VOC LEVEL: 510 g/L per SCAQMD Test Method 316A
FLASH POINT 4.1 F (-17 C) SETA CC
LOWER EXPLOSION LIMIT 1.8%
UPPER EXPLOSION LIMIT 11.8%

Section 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS: Can form potentially explosive peroxides upon long standing in air. Vapors may form explosive mixture with air.
CONDITIONS TO AVOID: Heat, sparks, open flames, and strong oxidizing, acidic and basic conditions.
MATERIALS TO AVOID: Oxidizers, acids and bases.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2, HCl and fragmented hydrocarbons.
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen. Tetrahydrofuran - The National Toxicology Program has reported that exposures of mice and rats to THF vapor levels up to 1800 ppm 6hr/day, 5 days/week for their lifetime caused an incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health are unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF.

TOXICOLOGY DATA
Ingredient Name

Methyl Ethyl Ketone
Oral-Rat LD50:2737 mg/kg
Inhalation-Rat LC50:23,500 mg/m3/8H

Tetrahydrofuran
Oral-Rat LD50:1650 mg/kg
Inhalation-Rat LC50:21,000 ppm/3H

Cyclohexanone
Oral-Rat LD50:1535 mg/kg
Inhalation-Rat LC50:8000 ppm/4H

Acetone
Oral-Rat LD50: 5800 mg/kg
Inhalation-Rat LC50: 50,100mg/m3

Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

Methyl Ethyl Ketone
Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: 214%
AQUATIC TOXICITY: 5640 mg/l/48 hr/bluegill/TLm/fresh water

Tetrahydrofuran
Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: N/A

Cyclohexanone
Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: N/A

Acetone
Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: LC50/96-hour for fish > 100 mg/l

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in approved, controlled incineration facility in accordance with all local, state and federal regulations.
Disposal Method: Incineration

Section 14 -- TRANSPORTATION INFORMATION

DOT: UN1133, Adhesives, Class 3,PG II, ERG#127.
Quarts and less: Consumer Commodity, ORM-D
OCEAN (IMDG): UN1133, Adhesives, Class 3, PG II, EMS-No: F-E, S-D
Quarts and less: Adhesives, Class 3, UN 1133, PG II, Limited Quantities or Ltd Qty
AIR (IATA): UN1133, Adhesives, Class 3, PG II, ERG#127
WHMIS (CANADA): Class B-2

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA

Ingredient Name		
Methyl Ethyl Ketone		
	SARA 313	Yes
	TSCA Inventory	Yes
	CERCLA RQ	5,000 lb.
	RCRA Code	U159
Tetrahydrofuran		
	SARA 313	No
	TSCA Inventory	Yes
	CERCLA RQ	1,000 lb.
	RCRA Code	U213
Cyclohexanone		
	SARA 313	No
	TSCA Inventory	Yes
	CERCLA RQ	5,000 lb.
	RCRA Code	U057
Acetone		
	SARA 313	No
	TSCA Inventory	Yes
	CERCLA RQ	5,000 lb.
	RCRA Code	U002

Section 16 -- OTHER INFORMATION

Text of R phrases mentioned in Section 2
R11 - Highly flammable
R36 - Irritating to eyes
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapors may cause drowsiness and dizziness

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MATERIAL SAFETY DATA SHEET

MSDS 0169

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Metacaulk 1000

PRODUCT CODES
66640, 66242, 66302, 66303, 66305, 66307, 66309, 66312

CHEMICAL FAMILY
Organic/Inorganic

USE
Firestopping Sealant

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

DATE OF VALIDATION
May 22, 2012

DATE OF PREPARATION
May 22, 2012

HMIS CODES

Health	1
Flammability	0
Reactivity	0
PPI	B

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

Section 2 -- HAZARDS IDENTIFICATION

GHS CLASSIFICATION
PHYSICAL HAZARDS: None
HEALTH HAZARDS
Acute Toxicity:
Oral: Not Classified
Dermal: Not Classified
Inhalation: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/Eye Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: Not Classified
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Not Classified
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

ENVIRONMENTAL HAZARDS
Hazardous to the Aquatic Environment: Not Classified
Acute aquatic toxicity: Not Classified
Chronic aquatic toxicity: Not Classified
Bioaccumulation potential: Not Classified
Rapid degradability: Not Classified

GHS Label elements, including precautionary statements
Pictogram: None
Signal Word: None
Hazard Statements: None
Precautionary Statements:
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.

Classification according to EU Directives 67/548/EEC or 1999/45/EC
LABELING SYMBOLS: None
RISK R-PHRASES: NOne
SAFETY S-PHRASES:
S2 : Keep out of the reach of children.

SUMMARY OF ACUTE HAZARDS
May cause skin irritation.
ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS
INHALATION
Not a respiratory irritant.
EYE CONTACT
Contact may cause eye irritation.
SKIN CONTACT
Contact may cause skin irritation.
INGESTION
Possible irritation to mucous membranes of the mouth, throat, and stomach.
SUMMARY OF CHRONIC HAZARDS
None known.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Persons with pre-existing skin conditions or chemical allergies may be more susceptible to contact effects of the cured elastomer.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS

None as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 4 -- FIRST AID MEASURES

If INHALED:	Not a respiratory irritant.
If on SKIN:	Wash with soap and water. If irritation occurs, seek medical attention.
If in EYES:	Immediately flush with large amounts of water. If irritation occurs, seek medical attention.
If SWALLOWED:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

EXTINGUSING MEDIA
Foam, dry chemical, carbon dioxide or water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).
UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat may build up and rupture closed containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use. To prevent freezing and possible rupture of container, do not store below 35 F.
OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues and vapors; treat as if full and observe all product precautions. Do not reuse empty containers. KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): None required.
VENTILATION - LOCAL EXHAUST: N/A
SPECIAL: N/A
MECHANICAL (GENERAL): N/A
OTHER: N/A
PROTECTIVE GLOVES: None required.
EYE PROTECTION: None required.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	212 F (100 C) @ 760mm Hg
SPECIFIC GRAVITY (H20 = 1):	1.25
VAPOR PRESSURE (mm Hg):	17 @ 68 F (20 C)
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	N/A
EVAPORATION RATE (ETHYL ACETATE = 1):	>1
APPEARANCE/ODOR:	Red Paste/Mild Odor
SOLUBILITY IN WATER:	Soluble
VOLATILE ORGANIC COMPOUNDS(VOC)Content (Theoretical Percentage By Weight):	<1% or <10 g/L
FLASH POINT	None
LOWER EXPLOSION LIMIT	None
UPPER EXPLOSION LIMIT	None

Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: None
INCOMPATIBILITY (MATERIALS TO AVOID): None known.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2 and fragmented hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA

Ingredient Name

None

Section 12 -- Ecological Information

ECOLOGICAL DATA

Ingredient Name

None

Food Chain Concentration Potential	N/A
WATERFOWL TOXICITY	N/A
BOD	N/A
AQUATIC TOXICITY	N/A

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste

Disposal Method: Approved landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

Section 14 -- TRANSPORTATION INFORMATION

DOT:	Non-Regulated
OCEAN (IMDG):	Non-Regulated
AIR (IATA):	Non-Regulated
WHMIS (CANADA):	Non-Regulated

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA

Ingredient Name

None

SARA 313	N/A
TSCA Inventory	All components listed
CERCLA RQ	N/A
RCRA Code	N/A

Section 16 -- OTHER INFORMATION

LABELING SYMBOLS: None

RISK R-PHRASES: None

SAFETY S-PHRASES:

S2 : Keep out of the reach of children.

This document is prepared pursuant to 91/155/EEC ISO 11014-1. The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001

MATERIAL SAFETY DATA SHEET

MSDS 0155

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
RectorSeal Cold Galvanizing Spray

PRODUCT CODES
86625

CHEMICAL FAMILY
Organic

USE
Metal coating

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

DATE OF VALIDATION
November 28, 2012

DATE OF PREPARATION
November 28, 2012

HMIS CODES

Health	2
Flammability	3
Reactivity	0
PPI	B

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

Section 2 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA Hazards

Flammable gas, Compressed Gas, Target Organ Effect, Irritant

TARGET ORGANS

Liver, Kidney, Bladder, Brain.

GHS CLASSIFICATION

PHYSICAL HAZARDS: Flammable gases (Category 1)

Gases under pressure (Liquefied gas)

HEALTH HAZARDS

Acute toxicity, Inhalation (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Reproductive toxicity (Category 2)

Specific target organ toxicity - single exposure (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Aspiration hazard (Category 1)

Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram: Flammable, Compressed Gas, Health Hazard, Harmful / Irritant,

Signal Word: Danger

Hazard Statements:

H220 - Extremely flammable gas.

H225 - Highly flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H336 - May cause drowsiness or dizziness.

H361 - Suspected of damaging fertility or the unborn child.

H371 - May cause damage to organs.

H401 - Toxic to aquatic life.

Precautionary Statements:

P102 - Keep out of reach of children.

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P281 - Use personal protective equipment as required.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P331 - Do NOT induce vomiting.

SUMMARY OF ACUTE HAZARDS

Repeated inhalation may cause dizziness, nausea and CNS effects. May cause severe eye and skin irritation.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

EYE CONTACT

Contact with eyes may cause severe irritation.

SKIN CONTACT

Irritation and drying.

INGESTION

May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

SUMMARY OF CHRONIC HAZARDS

Skin irritation, contact dermatitis, and defatting.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Propane
PERCENTAGE BY WEIGHT: --
CAS NUMBER: 68476-85-7
EC# : 200-827-9

INGREDIENT: Toluene
PERCENTAGE BY WEIGHT: 20 Max
CAS NUMBER: 109-99-9
EC# : 203-625-9

INGREDIENT: Xylene
PERCENTAGE BY WEIGHT: 10 Max
CAS NUMBER: 1330-20-7
EC# : 203-576-3

INGREDIENT: Zinc Dust
PERCENTAGE BY WEIGHT: 40 Max
CAS NUMBER: 7440-66-6
EC# : 231-175-3

Section 4 -- FIRST AID MEASURES

If INHALED:	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
If on SKIN:	Immediately wash with soap and water. Remove and wash any contaminated clothing.
If in EYES:	Flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.
If SWALLOWED:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

EXTINGUSING MEDIA

Foam, dry chemical, CO2, or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained full face piece breathing apparatus and full body protective clothing. Hazardous decomposition products possible (see Section 10). Evacuate area. Dike area as run-off may create additional environmental contamination.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Aerosol cans are under pressure - exposure to temperatures above 120F can cause bursting or "rocketing" of cans.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Use absorbent materials to prevent footing hazard and to contain. Ventilate area with forced air ventilation. Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing and respiratory protection during cleanup.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Shake well before using. Keep away from heat and open flames. Prolonged exposure to direct sunshine or storage above 120 F may cause can to burst. Do not puncture or incinerate can.

OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	UNITS

Propane
ACGIH TLV 1000 ppm
OSHA PEL 1000 ppm
Toluene
ACGIH TLV 50 ppm
OSHA PEL 100 ppm
Xylene
ACGIH TLV 100 ppm
OSHA PEL 100 ppm
Zinc Dust
ACGIH TLV 10 mg/m3
OSHA PEL 15 mg/m3
OSHA STEL 10 mg/m3

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined, poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air respirator.
VENTILATION - LOCAL EXHAUST: Acceptable
SPECIAL: Explosion proof
MECHANICAL (GENERAL): Acceptable
OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Chemical resistant coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	>165 F 74 C) @ 760mm Hg
SPECIFIC GRAVITY (H20 = 1):	1.00
VAPOR PRESSURE (mm Hg):	N/D
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	<1
EVAPORATION RATE (ETHYL ACETATE = 1):	>1
APPEARANCE/ODOR:	Gray Liquid / Petroleum Odor
SOLUBILITY IN WATER:	Slightly
FLASH POINT:	N/D
AEROSOL FLAME EXTENSION:	Positive
NFPA AEROSOL LEVEL:	3
VOLATILE ORGANIC COMPOUNDS(VOC)Content (Theoretical Percentage By Weight):	64.5% or (645 g/L)

Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Do not store in temperatures above 120 F.
INCOMPATIBILITY (MATERIALS TO AVOID): Oxidizers, acids and bases.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO, and fragmented hydrocarbons.
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA
Ingredient Name

Propane
Oral-Rat LD50:N/D
Inhalation-Rat LC50:N/D
Toluene
Oral-Rat LD50:5000 mg/kg
Inhalation-Rat LCLo:4000 ppm/4H
Xylene
Oral-Rat LD50:4300 mg/kg
Inhalation-Rat LC50:5000 ppm/4H
Zinc Dust
Oral-Rat LD50:N/D
Inhalation-Rat LC50:N/D

Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

Propane
Food Chain Concentration Potential: None
Waterfowl Toxicity: None

BOD: None
Aquatic Toxicity: None

Toluene
Food Chain Concentration Potential: None
Waterfowl Toxicity: N/A
BOD: 38%
Aquatic Toxicity: 1180 mg/l/96 hr/sunfish/TLm

Xylene
Food Chain Concentration Potential: N/A
Waterfowl Toxicity: N/A
BOD: 0%
Aquatic Toxicity: 22 ppm/96 hr/bluegill/TLm

Zinc Dust
Food Chain Concentration Potential: N/D
Waterfowl Toxicity: N/D
BOD: N/D
Aquatic Toxicity: N/D

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Aerosols
Disposal Method: Empty containers can be disposed of in trash. Full containers should be depressurized to separate liquid phase.
Dispose of all liquid waste in accordance with all local, state and federal regulations.

Section 14 -- TRANSPORTATION INFORMATION

DOT: UN1950, Aerosols, 2.1, Limited Quantities or LTD QTY
OCEAN (IMDG): UN1950, Aerosols, 2.1, Limited Quantities or LTD QTY, EmS No. F-D, S-U
AIR (IATA): UN1950, Aerosols, 2.1, ERG#126

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA
Ingredient Name

Propane
SARA 313 No
TSCA Inventory Yes
CERCLA RQ N/A
RCRA Code N/A

Toluene
SARA 313 Yes
TSCA Inventory Yes
CERCLA RQ 1,000 lbs.
RCRA Code U220

Xylene
SARA 313 Yes
TSCA Inventory Yes
CERCLA RQ 100 lbs.
RCRA Code U239

Zinc Dust
SARA 313 Yes
TSCA Inventory Yes
CERCLA RQ 1,000 lbs.
RCRA Code N/A

Section 16 -- OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001

MATERIAL SAFETY DATA SHEET

MSDS 0260

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Pyroseal

PRODUCT CODES
68612, 68614, 68616, 68618, 68620

CHEMICAL FAMILY
Inorganic

USE
Dual Purpose Retort & Furnace Cement

HMIS CODES

Health	1
Flammability	0
Reactivity	0
PPI	B

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

DATE OF VALIDATION
August 20, 2012

DATE OF PREPARATION
August 20, 2012

Section 2 -- HAZARDS IDENTIFICATION

GHS CLASSIFICATION
PHYSICAL HAZARDS: None
HEALTH HAZARDS
Acute Toxicity:
Oral: Not Classified
Dermal: Not Classified
Inhalation: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/Eye Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: Not Classified
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Not Classified
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements
Pictogram: None
Signal Word: None
Hazard Statements: None
Precautionary Statements:
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.

SUMMARY OF ACUTE HAZARDS
Exposure from dust may cause eye and respiratory irritation.
ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS
INHALATION
May cause respiratory irritation.
EYE CONTACT
Contact may cause eye irritation.
SKIN CONTACT
Contact may cause skin irritation.
INGESTION
Possible irritation to mucous membranes of the mouth, throat, and stomach.
SUMMARY OF CHRONIC HAZARDS
None known.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Persons with impaired pulmonary function and/or pre-existing eye or skin conditions may be more susceptible to the effects of this product.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Sodium Silicate
PERCENTAGE BY WEIGHT: 15.77
CAS#: 1344-09-8
EC#: 229-912-9

INGREDIENT: Calcium Magnesium Silicate
PERCENTAGE BY WEIGHT: 25.42
CAS#: 13983-17-0

EC#: 237-772-5

Section 4 -- FIRST AID MEASURES

If INHALED:	Remove to fresh air. Administer oxygen or artificial respiration if needed. Seek immediate medical attention.
If on SKIN:	Wash with soap and water. If irritation occurs, seek medical attention.
If in EYES:	Immediately flush with large amounts of water. If irritation occurs, seek medical attention.
If SWALLOWED:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

EXTINGUSING MEDIA
Foam, dry chemical, carbon dioxide or water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and other protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use.
OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	UNITS
Sodium Silicate	
ACGIH TLV	N/D
OSHA PEL	N/D
Calcium Magnesium Silicate	
ACGIH TLV	N/D
OSHA PEL	N/D

RESPIRATORY PROTECTION (SPECIFY TYPE): NIOSH/MSHA approved dust mask.
VENTILATION - LOCAL EXHAUST: Acceptable
SPECIAL: N/A
MECHANICAL (GENERAL): Preferable
OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	N/A
SPECIFIC GRAVITY (H20 = 1):	1.43
VAPOR PRESSURE (mm Hg):	N/A
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	N/A
EVAPORATION RATE (ETHYL ACETATE = 1):	N/A
APPEARANCE/ODOR:	Gray / No Odor
SOLUBILITY IN WATER:	Insoluble
FLASH POINT	None
LOWER EXPLOSION LIMIT	N/D
UPPER EXPLOSION LIMIT	N/D
VOLATILE ORGANIC COMPOUNDS(VOC)Content (Theoretical Percentage By Weight):	0% or (0 g/L)

Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: None
INCOMPATIBILITY (MATERIALS TO AVOID): None known.
HAZARDOUS DECOMPOSITION PRODUCTS: None known.
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA

Ingredient Name

Sodium Silicate

Oral-Rat LD50:2000-3000 mg/kg
Inhalation-Rat:N/D

Calcium Magnesium Silicate

Oral-Rat LD50:N/D
Inhalation-Rat:N/D

Section 12 -- Ecological Information

ECOLOGICAL DATA

Ingredient Name

Sodium Silicate

Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Calcium Magnesium Silicate

Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste
Disposal Method: Approved landfill
Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

Section 14 -- TRANSPORTATION INFORMATION

DOT:	Non-Regulated
OCEAN (IMDG):	Non-Regulated
AIR (IATA):	Non-Regulated
WHMIS (CANADA):	Non-Regulated

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA

Ingredient Name

Sodium Silicate

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Calcium Magnesium Silicate

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Section 16 -- OTHER INFORMATION

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POLYMER ADHESIVES

MATERIAL SAFETY DATA SHEET

SECTION I

DISTRIBUTOR OR MANUFACTURER:	EMERGENCY TELEPHONE NO.
Polymer Adhesives Sealant Systems, Inc.	CHEMTREC (800) 424-9300
ADDRESS (Number, Street, City, State and ZIP Code): 501 Garrett Morris Parkway Mineral Wells, TX 76067	
CHEMICAL FAMILY: Solvent Based Adhesive / Sealant	PRODUCT NAME AND SYNONYMS: Airseal Zero
PRODUCT USE: Adhesive / Sealant	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	%	PEL (ppm) TWA	PEL (ppm) STEL	PEL (ppm) CEILING	SKIN DESIGNATION	LD50 OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LD50 OF INGREDIENT (SPECIFY SPECIES)
Acetone	67-64-1	<10	500 ppm	750 ppm	N/A	N/A	Oral [Rat] - 5800 mg/kg	N/A
Tertiary Butyl Acetate	540-88-5	<18	200 ppm	N/A	N/A	N/A	Oral [Rat] - 4500mg/kg	Skin [Rabbit] >2000mg/kg BWT
Crystalline silica (impurity)*	14808-60-7	< 0.7	0.05 mg/m3	10 mg/m3	N/A	N/A		
*This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. This product does not present an inhalation, ingestion, or contact health hazard unless subjected to operations such as sawing, sanding or machining which result in the generation of airborne particulate. This product contains quartz (crystalline silica) as a naturally occurring contaminant.								

SECTION III - PHYSICAL DATA

PHYSICAL STATE	ODOR AND APPEARANCE	VOC (grams/liter) Less Water & Exempt Solvents	ODOR THRESHOLD (ppm)
Paste	Gray color, camphor / ketone odor	0 (Reportable EPA)	N/A

VAPOR PRESSURE	VAPOR DENSITY	EVAPORATION RATE	BOILING POINT (°C)	FREEZING POINT
Not established	Not established	Not established	56° C	< - 60° C

pH	SPECIFIC GRAVITY	COEFF. WATER/OIL DIST.	SOLUBILITY IN WATER	VOLATILES BY WT. (%)
N/A	1.08 - 1.38	N/A	Negligible	< 32

SECTION IV - FIRE AND EXPLOSION DATA

FLAMMABILITY	IF YES UNDER WHICH CONDITIONS?
X NO	See LFL / UFL

FLASHPOINT (°C) AND METHOD	AUTOIGNITION TEMPERATURE (°C)	LOWER FLAMMABLE LIMIT (% BY VOLUME)	UPPER FLAMMABLE LIMIT (%BY VOLUME)
Not established	Not established	1.26	12.8

HAZARDOUS COMBUSTION PRODUCTS

Carbon monoxide, Carbon Dioxide and potentially other asphyxiants

EXPLOSION DATA	SENSITIVITY TO IMPACT	SENSITIVITY TO STATIC DISCHARGE
Highly Volatile	Not sensitive to impact	Avoid static discharge, ground when using

NFPA CODE (REPRESENTATIVE OF THE MOST VOLATILE COMPONENTS IN THESYSTEM)

Health - 2, Flammability - 3, Reactivity - 0, Protection - 2

EXTINGUISHING MEDIA

Dry chemical, carbon dioxide, foam, water spray or fog, and vaporizing liquid type extinguishing agents are all suitable for extinguishing fires involving this type of product.

SPECIAL FIRE FIGHTING PROCEDURES

Wear a self-contained breathing apparatus with a full face piece (MSHA-NIOSH Approval) in a pressure demand or other positive pressure mode when fighting fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Material is highly volatile and readily gives off vapors that are heavier than air and may travel to a distant ignition source. Avoid open flames, pilot lights, sparks, cigarettes, static discharge, electric motors, or other ignition sources in the material handling area. Containers may explode if exposed to high temperatures. Store below 115° F.

PRODUCT NAME: Airseal Zero

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY			HAZARDOUS POLYMERIZATION		
	UNSTABLE			MAY OCCUR	
	STABLE	X		WILL NOT OCCUR	X

CONDITIONS TO AVOID

Hydrolysis may produce small amounts of hydrochloric acid w/gross water contamination. Avoid open flames, welding arcs, or other high temperature sources which induce thermal decomposition. Avoid sanding, blasting, sawing, machining or other activity they may generate

INCOMPATIBILITY (Materials to avoid)

Do not mix with acids, bases, or strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Open flames and welding arcs can cause thermal degradation with the evolution of hydrocarbon chemicals.

SECTION VI - TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: SKIN CONTACT [ ] SKIN ABSORPTION [ ] EYE CONTACT [ ] INHALATION [ ] INGESTION [ ]

EFFECTS OF ACUTE EXPOSURE TO PRODUCT

Eye: May cause pain, moderate eye irritation and slight corneal injury. Vapors may irritate eye. Skin Absorption: A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts. Prolonged exposure may cause a skin irritation, even a burn. Repeated contact may cause drying or flaking of the skin. May cause more serious response if confined. Extensive contact such as immersion may cause an intense burning sensation followed by a cold numb feeling. Ingestion: Single dose oral toxicity is low. The aspirated liquid may be rapidly absorbed through the lungs and result in injury to other bodily systems. If confined or in poorly ventilated areas, vapors can rapidly accumulate and can cause unconsciousness and death. Minimal anesthetic or narcotic effects may be seen in the range of 500-10,000 PPM can cause unconsciousness, death, irregular heartbeat, irritation to the upper respiratory tract, carbohypoglycemia, impairing the bloods ability to transport oxygen. Overexposure may cause irreversible damage to the peripheral nervous systems.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT

CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. The substance is toxic to central nervous system (CNS). The substance may be toxic to kidneys, the reproductive system, liver, skin. Repeated or prolonged exposure to the substance can produce target organ damage.

EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
See PEL	May cause temporary itching to skin	None known	No evidence
TERATOGENICITY	**REPRODUCTIVE TOXICITY**	**MUTAGENICITY**	**SYNERGISTIC PRODUCTS**
No evidence	tem/toxin/female, reproductive sys	No evidence	None Known

SECTION VII - PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

GLOVES (SPECIFY)	RESPIRATOR (SPECIFY)	EYE (SPECIFY)
Nitrile	Atmospheric levels should be maintained below exposure guidelines or use NIOSH approved respirator.	Follow good industrial practices by wearing safety glasses.
FOOTWEAR (SPECIFY)	**CLOTHING (SPECIFY)**	**OTHER (SPECIFY)**
Appropriate chemical resistant footwear.	Follow good industrial practices.	N/A

ENGINEERING CONTROLS (SPECIFY, E.G.., VENTILATION, ENCLOSED PROCESS)

Controlling airborne concentrations below the ACGIH exposure guidelines is recommended. Use only with adequate ventilation.

LEAK OR SPILL PROCEDURE

Recover material and place in suitable container for recycle or disposal in accordance with local/state/federal regulations.

WASTE DISPOSAL

When disposing of the unused contents, the preferred options are to send to licensed reclaimers or to permitted incinerators. Any disposal practice must be in compliance with Federal, State, and Local regulations. DO NOT DUMP: sewers, ground, any body of

HANDLING PROCEDURES AND EQUIPMENT

Open containers slowly to release any pressure in containers. Follow proper Personal Protective Equipment procedures above.

STORAGE REQUIREMENTS

Store below 115°F

SPECIAL SHIPPING INFORMATION

Class 3 UN1133

SECTION VIII - FIRST AID MEASURES

SPECIFIC MEASURES

Eye Contact: Flush with large amounts of water or saline solution for 15 minutes, making sure to rinse under eyelids. Get prompt medical attention, especially if irritation persists or if there is evidence of burn or vision difficulty.

Skin Contact: Remove contaminated clothing and wash thoroughly with a waterless hand cleaner and then soap and water. If irritation occurs, get medical attention. Launder contaminated clothing before reuse.

Inhalation: Move affected person to fresh air. Administer oxygen if breathing is difficult or artificial respiration if breathing has stopped. Keep person warm and quiet and get immediate medical attention.

Ingestion: Do not induce vomiting. Keep person warm and quiet. Get immediate medical attention. Aspiration in the lungs due to vomiting can cause chemical pneumonitis which can be harmful or fatal.

SECTION IX - SARA Section 313 SUPPLIER NOTIFICATION

CAS NUMBER	CHEMICAL NAME	PERCENT BY WEIGHT	CAS NUMBER	CHEMICAL NAME	PERCENT BY WEIGHT
67-64-1	Acetone	<10			
540-88-5	Tertiary Butyl Acetate	<18			
14808-60-7	Crystalline silica (impurity)*	< 0.7			

SECTION X - PREPARATION INFORMATION

PREPARED BY (GROUP, DEPARTMENT, ETC.)	PHONE NUMBER	DATE	CHANGE NO.	SUPERSEDES ALL PREVIOUS PUBLICATIONS
Research and Development	(940) 328-9500	9/10/2013	6	

MATERIAL SAFETY DATA SHEET

Elgen Manufacturing Company INC.
10 Railroad Ave, Closter NJ 07624
(800)503-9805
ISSUE DATE: 08/14/2013
EMERGENCY PHONE NUMBER: INFOTRAC: (800) 535-5053

I. Product

PRODUCT NAME	**ELGEN DUCT SEAL-IT**
CLASS	Water Based Sealant

II. Physical Data

Boiling Point	212°F
Vapor Density	(AIR=1) <1
Specific Gravity	(H_2O=1) 1.49
Solubility in Water	soluble
Vapor Pressure (mm Hg)	760mm@100°C
Percent Volatile by Weight	30.7 %
Appearance	Grey
Volatile organic compounds (VOC)	0.0 g/L

III. Hazardous Ingredients

Hazardous Components	CAS#	%	TLV (units)
AMMONIUM HYDROXIDE	1336-21-6	<1	N/A

IV. Health Hazard Data

Routes of Entry: Eyes, Skin, Inhalation, Ingestion

SIGNS AND SYMPTOMS OF EXPOSURE:
EYES: may be irritating to eyes.
SKIN: may cause irritation upon prolonged or repeated contact.
INHALATION: n/a
INGESTION: no known cases - get medical attention..

V. Fire and Explosion Hazard Data

EXTINGUISHING MEDIA: USE WATER, DRY CHEMICALS OR CO_2
FLASH POINT: NONE
FLAMMABLE LIMITS: LEL - N/A UEL - N/A
SPECIAL FIRE FIGHTING PROCEDURES: WATER MAY BE USED TO COOL EXPOSED CONTAINERS.
UNUSUAL FIRE & EXPLOSION HAZARDS: CLOSED CONTAINERS EXPOSED TO EXTREME HEAT MAY RUPTURE DUE TO PRESSURE BUILD UP.

VI. Spill or Leak Procedures

SPILL OR LEAK PROCEDURES: Scrape or shovel material into suitable containers. Wipe up remaining material with damp rags. Prevent spilled material from entering sewers, storm drains or any authorized treatment, drainage system and/or natural waterways.

WASTE DISPOSAL: CARE MUST BE TAKEN WHEN DISPOSING OF CHEMICAL MATERIALS AND/OR THEIR CONTAINERS TO PREVENT ENVIRONMENTAL CONTAMINATION. IT IS YOUR DUTY TO DISPOSE OF THE CHEMICAL MATERIALS AND/OR THEIR CONTAINERS IN ACCORDANCE WITH THE CLEAN AIR ACT, THE CLEAN WATER ACT, THE RESOURCE CONSERVATION AND RECOVERY ACT AND ALL RELEVANT STATE, LOCAL AND FEDERAL LAWS/ REGULATIONS REGARDING WASTE DISPOSAL.

VII. Special Protection

RESPIRATORY PROTECTION: For emergency or when working in confined areas use self-contained breathing apparatus or supplied air respiratory protection. In other circumstances involving potential overexposure, use NIOSH/MSHA-approved organic vapor respirator. Respiratory protection must be in accordance with 29CFR 1910.134.
VENTILATION: General mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weight TLV ranges. If general ventilation proves inadequate to maintain vapor concentrations, supplemental local exhaust may be required. Other special precautions, such as respiratory protection may be required if vapor concentrations cannot be reduced to below the TLV by ventilation.
PROTECTIVE GLOVES: polyethylene, neoprene or polyvinyl alcohol
EYE PROTECTION: splash-proof goggles

VIII. Emergency and First Aid Procedures

EYES: Flush with a gentle stream of water for at least 15 minutes. If irritation occurs, consult a physician.
SKIN: Remove contaminated clothing and shoes. Wash thoroughly with of water and soap. If irritation occurs, consult a physician.
INHALATION: No first aid is normally needed, however, seek medical attention.
INGESTION: no known cases – seek medical attention.
CARCINOGENICITY: n/a

IX. Carcinogenic Assessment

This product is considered non-hazardous under the OSHA Hazard Communication Standard 29 CFR 1910.1200.
EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (SARA TITLE III):
Section 311/312 Categorizations (40 CFR 370): Immediate (Acute) Health Hazard.
Section 313 Information (40 CFR 372) – Toxic Chemicals List: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:
Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.
CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): This product may contain trace amounts of chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

X. Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect material from freezing, both in handling and storing..

XI. Reactivity Data

Stability	Stable
Incompatibility (materials to avoid)	SALTS AND STRONG ACIDS MAY CAUSE REACTION.
Hazardous Decomposition Products or Byproducts:	
Hazardous Polymerization	may not occur
Conditions to Avoid	N/A

MATERIAL SAFETY DATA SHEET

Product name: **FS-ONE High Performance Intumescent Firestop Sealant**

Description: One-part acrylic-based sealant

Supplier: Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121

Emergency # (Chem-Trec.): 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	PEL:	TLV:	STEL:
Polyacrylate dispersion	Mixture	NE	NE	NE
Calcium carbonate	001317-65-3	5 mg/m^3 (R)	NE	NE
Zinc borate	1332-07-6	NE	NE	NE
Talc	014807-96-6	20 mppcf	2 mg/m^3(R)	NE
Ethylene glycol	000107-21-1	NE	NE	C:100 mg/m^3 (A)
Iron oxide	001309-37-1	10 mg/m^3 (F)	5 mg/m^3(R)	NE

Abbreviations: **PEL** = OSHA Permissible Exposure Limit. **TLV** = ACGIH Threshold Limit Value. **C** = Ceiling. **STEL** = Short Term Exposure Limit. **NE** = None Established. **NA** = Not Applicable. **(T)** indicates "as total dust". **(R)** indicates "as respirable fraction". **(A)** indicates "as an aerosol". **mppcf** = million particles per cubic foot. **F** = Fume

PHYSICAL DATA

Appearance:	Red paste.	**Odor:**	Odorless.
Vapor Density: (air = 1)	Not determined.	**Vapor Pressure:**	23mbar @ 20C / 68F
Boiling Point:	Not applicable.	**VOC Content:**	75.0 g/L.
Evaporation Rate:	Not applicable.	**Solubility in Water:**	Soluble.
Specific Gravity:	1.5	**pH:**	Not determined.

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Non-flammable.	**Flammable Limits:**	Not applicable.
Extinguishing Media:	Not applicable. Use extinguishing media as appropriate for surrounding fire.		
Special Fire Fighting Procedures:	None known. Use a self-contained breathing apparatus when fighting fires involving chemicals.		
Unusual Fire and Explosion Hazards:	None known. Thermal decomposition products can be formed such as oxides of carbon, sulfur and phosphorous.		

REACTIVITY DATA

Stability:	Stable.	**Hazardous Polymerization:**	Will not occur.
Incompatibility:	Strong acids, peroxides, and oxidizing agents.		
Decomposition Products:	Thermal decomposition can yield CO and CO_2.		
Conditions to Avoid:	None known.		

HEALTH HAZARD DATA

Known Hazards:	None known.
Signs and Symptoms of Exposure:	Possibly irritating upon contact with the eyes or upon repeated contact with the skin.
Medical Conditions Aggravated by Exposure:	Eye and skin conditions.
Routes of Exposure:	Dermal.
Carcinogenicity:	No ingredients are classified as carcinogens.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Immediately flush with plenty of water. Contact a physician if symptoms occur.
Skin:	Immediately wipe off material and wash with soap and water. Contact a physician if symptoms occur.
Inhalation:	Move victim to fresh air if discomfort develops. Contact a physician if symptoms occur. persist.
Ingestion:	Seek medical attention. Do not induce vomiting unless directed by a physician.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Safety glasses with side shields.
Skin Protection:	Impermeable gloves. Other protective clothing as required to prevent skin contact.
Respiratory Protection:	None normally required. Where ventilation is inadequate to control vapors, use a NIOSH-approved respirator with organic vapor cartridges. Never enter a confined space without an appropriate air-supplied respirator.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Store in a cool, dry area preferably between 40° and 77° F. Keep from freezing. Do not store in direct sunlight. Avoid contact with the eyes or skin. Practice good hygiene; i.e. always wash thoroughly after handling and before eating or smoking. For industrial use only. Keep out of reach of children. Follow label/use instructions.
Spill Procedures:	Immediately wipe away spilled material before it hardens. Place in a container for proper disposal in accordance with all applicable local, state, or federal requirements.

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
HMIS Codes:	Health 1, Flammability 0, Reactivity 0, PPE B
DOT Shipping Name:	Not regulated.
IATA / ICAO Shipping Name:	Not regulated.
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product contains < 3% ethylene glycol (CAS 107-21-1) and < 15% zinc borate (re: zinc compounds) which are subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste.
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

CONTACTS

Customer Service:	1 800 879 8000	**Technical Service:**	1 800 879 8000
Health / Safety:	1 800 879 6000 Jerry Metcalf (x71003704)		
Emergency # (Chem-Trec):	1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)		

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.

BOSS® PRODUCTS

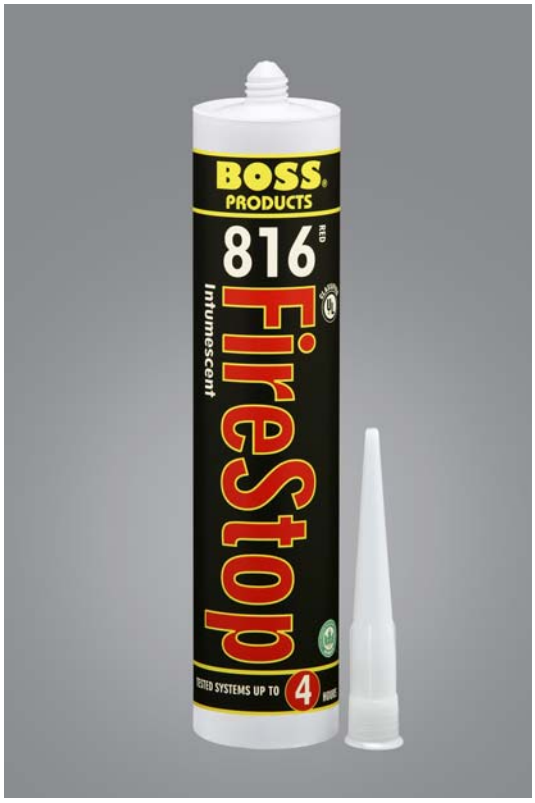
TECHNICAL DATA SHEET

BOSS® 816 Intumescent Firestop Sealant

TYPICAL PROPERTIES

Color	Red
pH	7 to 8
Volatile Organic Content	5 g/l
Skin Forming Time	30 minutes @ 77°F
Density	10.75 lbs./gal.
Elastomeric	Yes
Curing Time @77°F	21 to 28 days
Freeze/Thaw	Excellent
STC Rating	53
Tested To	ASTM E-90
Service Temperature	-20°F to 185°F
Application Temperature	40°F to 110°F

*Information on this data sheet is subject to change without notice and should not be used for writing specifications.
For additional information on specific applications, contact Accumetric, LLC



DESCRIPTION

BOSS® 816 UL Classified Intumescent Firestop Sealant is a fire rated, general purpose sealant for use on through-penetrations and construction joints. It is a single component, non-sag, water based sealant and smoke seal that is easy to apply and clean up. **BOSS® 816** will prevent the spread of toxic gases, water, smoke and fire through joint openings and through penetrations. **BOSS® 816** is suitable for adhesion to almost any surface and remains flexible, making it ideal for both horizontal and vertical joints, subject to vibration or dynamic movement. It bonds quickly, has excellent adhesion and is non-toxic. **BOSS® 816** is protected against mold growth with a combination of biocides in both wet and dry stages. It has been tested to the following specifications: UL 1479 (ASTM E-814), UL 2079 (ASTM E-1966), ASTM E-84 (0-flame, 0-smoke), ASTM E-90 (STC 53).

FEATURES

- **Bonds quickly with excellent adhesion**
- **Mildew Resistant**
- **Remains flexible**
- **VOC compliant**
- **Excellent freeze/thaw properties**
- **Safe to use and handle**
- **Water based and paintable**
- **12 month shelf life**

HOW TO USE

- Cut nozzle to desired bead size. Insert cartridge into standard caulking gun.
- For a smooth seal, hold at 45° angle and apply by pushing sealant ahead of nozzle.
- Apply at 40°F (4°C) or above.
- To ensure good adhesion, all surfaces should be clean and free of dust, oil, loose materials or any other substances.
- Make sure that **BOSS® 816** makes complete contact with the entire surface of the opening and also the surface of the penetrating items. Follow application instructions on applicable system/design.
- Clean tools with water immediately after use.

Always follow cartridge directions. Clean the area to be treated so that it is free of all particles and debris. For large openings, mineral wool fibers can be used as a backer to help hold the product in place until cured. Steel screen wire can be stapled in place over the material when a large opening is overhead or configured such that the material will not support its own weight during cure.

CLEAN UP

Uncured sealant can be easily removed using water or BOSS® Biggie Wipes. If the sealant is cured it must be removed mechanically by cutting and scraping.

TEMPERATURE RANGE

BOSS® 816 will freeze in the cartridge at temperatures below 32°F (0°C). Therefore, store at between 35°F (2°C) and a maximum of 120°F (49°C). If freezing does occur, thaw completely before use. Once cured, **BOSS® 816** will withstand freeze/thaw cycles.

PACKAGING

BOSS® 816 Intumescent Latex Firestop Sealant is available in standard caulking cartridges, 28 Fl. Oz. cartridges, 20 Oz. sausages and 5 gallon pails.

Nonreactive VOC 6 g/l (<1.50% wt)

COLOR

BOSS® 816 Intumescent Firestop Sealant is red in color for ease of inspection.

SPECIFICATIONS

Tested to **UL 1479 (ASTM E-814)**, standard test method for fire tests of through penetration firestops. Conforms to IBC, IRC, BOCA National Building Code (1996), CABO one and two family dwelling code (1995), Uniform Building Code (1997). See UL Fire Resistance Directory for a list of systems that have been established for **BOSS® 816**.

CLASSIFIED C UL US

FILL, VOID OR CAVITY MATERIALS
FOR USE IN THROUGH-PENETRATION
FIRESTOP SYSTEMS
SEE UL DIRECTORY OF PRODUCTS
CERTIFIED FOR CANADA AND UL FIRE
RESISTANCE DIRECTORY
15WV

STORAGE AND SHELF LIFE

When stored in the original unopened containers at or below 120°F, **BOSS® 816** has a shelf life of 12 months from date of shipment. In Countries where high heat and humidity are a factor, special precautions must be taken. Store product in a covered, well-ventilated warehouse and avoid excessive heat conditions. Storage in high heat, high humidity conditions may reduce shelf life by up to 30%. Rotation of stock is an absolute necessity. Cartons should always be stacked upright with the nozzle tip pointed upwards. DO NOT stack cartons on their side. ***NEVER*** stack cartons more than 8 high. DO NOT store within 1 meter (4 feet) of roofline of the warehouse or storage building.

CAUTION

DIRECT CONTACT OF UNCURED SEALANT IRRITATES EYES AND MAY IRRITATE SKIN. OVEREXPOSURE TO VAPOR MAY IRRITATE EYES, NOSE AND THROAT. Avoid eye and skin contact. Use with adequate ventilation. Do not handle contact lenses with sealant on hands. IN CASE OF EYE CONTACT, flush eyes with water for 15 minutes. Obtain medical attention. IN CASE OF SKIN CONTACT, remove from skin and flush with water. Do not use solvents to remove from skin. IN CASE OF INGESTION, call physician immediately.

Clean spills immediately with scrapers and water. Keep container upright and tightly closed, do not reuse. KEEP OUT OF REACH OF CHILDREN. For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

USERS PLEASE READ

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made.

It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application.

Likewise, if the application, product specifications or manner in which our products are used requires government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

Non-warranty: Because the storage, handling and application of the material is beyond Accumetric's control, we can accept no liability for the results obtained. Accumetric's sole limited warranty is the product meets the manufacturing specifications in effect at time of shipment. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. Accumetric will not be liable for incidental or consequential damages of any kind. The exclusive remedy for breach of such limited warranty is a refund of purchase price or replacement of any product shown to be other than as warranted.

Suggestions of uses should not be taken as inducements to infringe any patents.

MADE IN U.S.A.

BOSS® PRODUCTS

Accumetric, LLC
350 Ring Road
Elizabethtown,
Kentucky 42701 USA
800-928-BOSS(2677)
TEL (270)769-3385
FAX (270)765-2412
Outside U.S.
TEL +1(270)769-3385
FAX +1(270)765-2412

Accumetric Asia Pacific, LTD
18 Kitpanit Bldg. 5th Floor
#502 Patpong Road
Suriyawong, Bangrak
Bangkok, 10500 Thailand
TEL (662)634-3060
FAX (662)634-3066

www.bossproducts.com

MATERIAL SAFETY DATA SHEET

ISSUE DATE: 11/01/01
REVISE DATE: 5/06/09
Supersedes: Any Previous M.S.D.S. On This Product
EMERGENCY PHONE NUMBER: CHEM-TEL, INC. 1-800-255-3924

I. IDENTIFICATION

PRODUCT NAME: **Quick-Stick Cylinder**
PRODUCT CLASS: Solvent Based Aerosol Duct Liner Adhesive

DUCTMATE INDUSTRIES, INC.
210 5th St.
Charleroi, PA 15022

II. HAZARDOUS INGREDIENTS

Ingredient(s)	Percent	OSHA PEL	ACGIH TLV	OSHA TWA	ACGIH TWA
Dichloromethane Cas #: 75-09-2	45%-55%	25 ppm	Not Established		
Petroleum Gases Liquified	<5%	Not Established	Not Established		
Aliphatic Naptha CAS #: 8052-41-3 Vapor Pressure (mm Hg@20°C): 0.3799	<2%			100 ppm	100ppm

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)
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:
SARA Section 313: This product contains the following substances subject to the reporting requirements of Section 313 if Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

DICHLOROMETHANE CAS # 75-09-2

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

U.S. State Regulations: As follows:
California Proposition 65:
Warning: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm.
DICHLOROMETHANE CAS # 75-09-2

On January 12th OSHA published a final standard for exposure to methylene chloride. The final rule becomes effective April 10, 1997. The new action limit for methylene chloride is 12.5 ppm. The PEL is 25 ppm and there is a STEL of 125 ppm for a 15 minute period.

III. PHYSICAL DATA

Property	Measurement	Property	Measurement
Boiling Point	103°F	Specific Gravity	1.21
Vapor Pressure	N.D.	Vapor Density	Heavier than air
Evaporation Rate	Faster than Butyl Acetate	Appearance	Green, slight ether odor
Solubility In Water	Negligible	pH	N.A.
VOC	17.4g VOC/Liter of material (VOC theoretically determined Using EPA Publication 450/3-84-019)		
VOC, less water	51.4g VOC/liter of material, less water And Exempt solvents (VOC theoretically Determined using EPA Publication 450/3-84-019.)		

IV. HEALTH HAZARDS

PERMISSIBLE EXPOSURE LIMITS: Not established for this product.
EFFECTS OF ACUTE OVEREXPOSURE:
EYES: Exposure to liquid, vapor, or mist may cause severe eye irritation. Symptoms may include redness, tearing, and blurred vision.
SKIN: Prolonged or repeated contact can cause moderate irritation defatting, dermatitis.
BREATHING: Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation. Methylene chloride can raise the level of carbon monoxide in the blood causing cardiovascular stress.
SWALLOWING: No information.
PRIMARY ROUTE(S) OF ENTRY: Skin contact, eye contact, and inhalation

V. HEALTH AND FIRST AID

IN EYES: Flush eyes with large amounts of water lifting upper and lower lids occasionally. Seek immediate medical attention.

ON SKIN: Remove contaminated clothing immediately. Thoroughly wash exposed area with soap and water. Launder contaminated clothing before re-use. Get medical attention if irritation persists. Mineral oil, baby oil, makeup remover, mineral spirits, or other similar mild solvent may be used to remove the sticky resin residue left by the adhesive.
BREATHING: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen (if you have been trained in its use). If breathing has stopped, give artificial respiration. Keep person warm, quiet and get immediate medical attention. If possible do not leave person unattended.
SWALLOWING: Do not induce vomiting. Give two glasses of water if conscious. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

VI. FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASS (OSHA/NFPA): None.
FLASH POINT: N/A
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water fog
FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode when fighting fires. Keep fire exposed containers cool with water fog.
HAZARDOUS DECOMPOSITION PRODUCTS: Vapors can ignite or decompose from extremely high intensity ignition source liberating toxic gasses. Vapors are heavier than air and travel along the ground or may be moved by ventilation to locations distant from the material handling point.
EXPLOSIVE LIMIT: Lower limit 13.0% Upper limit 25.0%

VII. SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

SPILLS: Eliminate sources of ignition and ventilate area. Persons not properly equipped should be excluded from the area. Stop spill at source – prevent spreading. Avoid inhalation of vapors. Avoid skin contact with liquid. Soak up on absorbent material and place into proper container for disposal. Use non-sparking scoops for flammable materials. Clean walking surfaces thoroughly to reduce slipping hazard.

VIII. SPECIAL PROTECTION

ENGINEERING CONTROLS: Provide sufficient mechanical ventilation (general and/or local exhaust) to maintain exposure below TLV(s).
RESPIRATORY PROTECTION: If work place exposure limits of product or any component is exceeded, use a NIOSH/MSHA approved respirator. Consult your safety equipment supplier for recommendations. Cartridge type respirators are not acceptable to protect against methylene chloride exposure except as emergency escape respirators. Air supplied respirators are required by OSHA when methylene chloride exposures exceed their permissible exposure limits or short term exposure limits.
SKIN PROTECTION: Wear impervious gloves if method of use involves skin contact with product. Consult your safety supply vendor for glove recommendations.
EYE PROTECTION: Wear safety glasses at minimum more extensive protection may be necessary depending on how the product is to be used.
OTHER PROTECTIVE EQUIPMENT: Wear impervious clothing if bodily exposure is anticipated. Consult your safety supply vendor for recommendations.
HYGENIC PRACTICES: Wash hands before eating or smoking. Smoke in designated areas only. Remove and launder clothing if contaminated.

IX. TRANSPORTATION INFORMATION

No transportation information is available.

X. REACTIVITY DATA

STABILITY: Stable under normal storage conditions.
CONDITIONS TO AVOID: Heat, sparks, welding arcs, and open flame.
INCOMPATIBILITY: Avoid contact with strong alkalies, reactive metals, oxygen, nitrogen peroxide, sodium, potassium, strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide. Various hydrocarbons, hydrogen chloride, phosgene, chlorine.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

XI. SPECIAL PRECAUTIONS

HANDLING: Do not transfer to plastic, rubber, or aluminum container.
STORAGE: No information.

This information is taken from sources or based upon data believed to be reliable; however, DUCTMATE INDUSTRIES, INC. makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist, as all materials may present unknown health hazards.

FACTS Faxed FAST!℠

OSHA-Required Health And Safety Information!

This Material Safety Data Sheet (MSDS) was requested moments ago from Hercules Automated Fax Information System. Please forward it immediately to the person in charge of MSDS's, or retain it at the machine until claimed.

Section 1

MATERIAL SAFETY DATA SHEET # 74
Duck Butter®

HERCULES® MATERIAL SAFETY INFORMATION SERVICE℠

Date Prepared: □□0□1990 **Last Reviewed:** □1□□01□

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Hercules Chemical Company Inc.
111 South Street
Passaic NJ 07055
Phone (800) 221-9330
Fax (800) 333-3456

Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s), CAS Numbers)	OSHA PEL	ACGIH TLV	Other Limits	Upper Bound Limit if SARA Reportable
□□s □r□d□□□s □□□□□ass□□ed as □a□ard□□s □□ a□□□rda□□e □□□□ □□□□ □9 □□□ 1910□1□00				

HMIS Hazard Rating: □ea□□□□0 □a□ □ a□□□□□□0 □ea□□□□□□□□0 □ers□□a□□r□□e□□□□□□□

Section 3 - Physical/Chemical Characteristics

Boiling Point (°F):	Specific Gravity (H2O = 1):	Vapor Density (Air = 1):	Vapor Pressure (mm Hg):
□1□0	1□1□1	□□□	□□□

Melting Point (° F)	Evaporation Rate: (Butyl Acetate = 1)	Solubility in Water:	
□□□	□□□	□□□ □□e□e	**VOC Level:** 33□

Appearance And Color: □a□ □□□□red □as□e **Odor:** M□d □d□r

Section 4 - Fire And Explosion Hazard Data

Flash Point:	Flammable Limits:	LEL:	UEL:
□□□e	□□□□□□a□ □a□□e	□□□	□□□

Extinguishing Media: □□□

Special Firefighting Procedures:
□□□

Unusual Fire And Explosion Hazards:
□□□e

Continued on Next Page

Section 5 - Reactivity Data

Stability: □a□e **Conditions To Avoid:** □□□□

Incompatability (Materials To Avoid): □□□d □□□a□□□ □□ s r□□□ □□d□□□□ a□e□s□

Hazardous Decomposition: □□□□

Hazardous Polymerization:

Section 6 - Health Hazard Data

Routes of Entry: **Inhalation** □□ **Skin** □□ **Ingestion** □□

Health Hazards:

□□□□

Carcinogenicity: **NTP** □□ **IARC** □□ **OSHA Regulated** □□

Signs And Symptoms of Exposure:

□□□□

Medical Conditions Generally Aggravated By Exposure:

□□□□

Emergency And First Aid Procedures:

□s □□ a□□s□a□□□e □r□d□□, □e□e □□□a□□r s□□ rr□a□□ □□□□rs, □s□ □□ □a□er □r □ □ □□es□ □d s□□□ □r□ □ers s s, □e□ ed□a□a□e□□□□

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Section 7 - Precautions For Safe Handling And Use:

Steps To Be Taken In Case Material Is Released Or Spilled:

□□s□ □□□ □a□er □r □□e □□ □□□ □a□er □□□e s □r □□□□□

Waste Disposal Method:

□□s□ □ se□er □r d s□□se □ a□d □□□ □ar□e □□a□□es are □□□□ed, d s□□se □□□ a□□rda□□e □□□ a□□□a□e re□□a□□s□

Precautions To Be Taken In Handling And Storing:

□□□□

Other Precautions:

□□□e

Section 8 - Control Measures:

Respiratory Protection:

□□□e re□□red□

Ventilation: **Local Exhaust** □□□e
Mechanical □□□e
Special □□□e
Other: □□□e

Gloves: □□□e

Eye Protection: □□□e

Other Protective Clothing: □□□e

Work/Hygienic Practices □a□dard

MATERIAL SAFETY DATA SHEET

MSDS 0094

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
RectorSeal Tru-Blu

PRODUCT CODES
31300, 31431, 31551, 31552, 31631, 31780, 31782, 31785

CHEMICAL FAMILY:
Organic

USE
Pipe Thread Sealant

HMIS CODES

Health	1
Flammability	2
Reactivity	0
PPI	B

MANUFACTURER'S NAME
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

EMERGENCY TELEPHONE NO.
Chemtrec 24 Hours
(800)424-9300 USA
(703)527-3887 International

DATE OF VALIDATION
July 9, 2012

TECHNICAL SERVICE TELEPHONE NO.
(800)231-3345 or (713)263-8001

DATE OF PREPARATION
July 9, 2012

Section 2 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
OSHA Hazards
Combustable
TARGET ORGANS
Not Classified
GHS CLASSIFICATION
PHYSICAL HAZARDS
Combustable liquid (Category 4)
HEALTH HAZARDS
Acute Toxicity:
Oral: Not Classified
Dermal: Not Classified
Inhalation: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/Eye Irritation: Not Classified
Skin Sensitization: Not Classified
Respiratory Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: See Section 11
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Not Classified
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements
Pictogram: Harmful / Irritant
Signal Word: Warning
Hazard Statements
H303 - May be harmful if swallowed.
H313 - May be harmful in contact with skin.
H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness.
Precautionary Statements
P102 - Keep out of reach of children.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/Bond container and receiving equipment
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P362 - Take off contaminated clothing and wash before reuse.
EUH066 - Repeated exposure may cause skin dryness or cracking
Precautionary Statements - EU No. 1272/2008

SUMMARY OF ACUTE HAZARDS
Irritation to eyes, nose and throat; drowsiness, narcosis, tremors and other CNS effects at high concentration.
ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS
INHALATION
Nasal and respiratory irritation, dizziness, narcosis, headache, nausea,

CNS depression and unconsciousness.
EYE CONTACT
Watering, blurred vision, inflammation and irritation which can result in corneal injury.
SKIN CONTACT
Irritation, dermatitis.
INGESTION
Nausea, vomiting; CNS depression; irritation of gastrointestinal tract, liver and peritoneal wall; lung congestion.
SUMMARY OF CHRONIC HAZARDS
Skin irritation and dermatitis. Possible liver and kidney damage.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver or kidneys may have increased susceptibility to excessive exposures.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Diacetone Alcohol
PERCENTAGE BY WEIGHT: 20-30
CAS NUMBER: 123-42-2
EC# : 204-626-7

Section 4 -- FIRST AID MEASURES

If INHALED:	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
If on SKIN:	Wash with soap and water. If irritation occurs, seek medical attention.
If in EYES:	Flush eyes with large amounts of water for 15 minutes. Get medical attention.
If SWALLOWED:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
150 F (65 C) SETA CC	N/D	N/D

EXTINGUSING MEDIA
Foam, dry chemical, carbon dioxide or water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).
UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible - moderate flash point. Vapors heavier than air and may travel along the ground or to low spots at considerable distances to a source of ignition resulting in potential flashback. Burning liquid may float on water. Heat may build up pressure and rupture containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Use absorbent materials to prevent footing hazard and to contain. Ventilate area with natural or explosion-proof, forced air ventilation. Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing and respiratory protection during cleanup.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use. Do not store near heat, sparks, or open flames.
OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.
KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	UNITS
Diacetone Alcohol	
ACGIH TLV	50 ppm
OSHA PEL	50 ppm

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.
VENTILATION - LOCAL EXHAUST: Acceptable
SPECIAL: Explosion-proof equipment.

MECHANICAL (GENERAL): Preferable
OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Chemical splash goggles (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	322 F (161 C) @ 760mm Hg
SPECIFIC GRAVITY (H20 = 1):	1.38
VAPOR PRESSURE (mm Hg):	0.3 @ 68 F (20 C)
MELTING POINT:	N/A
VAPOR DENSITY (AIR = 1):	1.1
EVAPORATION RATE (ETHYL ACETATE = 1):	0.14
APPEARANCE/ODOR:	Blue Paste/Mild Odor
SOLUBILITY IN WATER:	23%
VOLATILE ORGANIC COMPOUNDS(VOC)Content (Theoretical Percentage By Weight):	23% or (230 g/L)

Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Heat, sparks, open flames, and strong oxidizing. Temperatures above 500 F (260 C).
INCOMPATIBILITY (MATERIALS TO AVOID): Gaseous oxygen, strong oxidizing materials, molten alkali metals.
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2 and fragmented hydrocarbons.
HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredients in this product is an IARC, NTP or OSHA Lister carcinogen.

TOXICOLOGY DATA
Ingredient Name

Diacetone Alcohol		
	Oral-Rat	LD50:4000 mg/kg
	Inhalation-Human	TCLo: 100 ppm

Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

Diacetone Alcohol		
	Food Chain Concentration Potential	N/A
	WATERFOWL TOXICITY	N/A
	BOD	N/A
	AQUATIC TOXICITY	N/A

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste
Disposal Method: Approved landfill
Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

Section 14 -- TRANSPORTATION INFORMATION

DOT:	Non-Regulated
OCEAN (IMDG):	Non-Regulated
AIR (IATA):	Non-Regulated
WHMIS (CANADA):	Non-Regulated

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA
Ingredient Name

Diacetone Alcohol		
	SARA 313	N/A
	TSCA Inventory	Yes
	CERCLA RQ	N/A
	RCRA Code	N/A

Section 16 -- OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001

Childers®

Mastics, Coatings, Adhesives, Sealants

VI-CRYL®
CP-10 (rCe Grade)
CP-11 ra rs)
Weather Barrier Coatings

DURABLE WATER BASED VINYL-ACRYLIC MASTIC COATING FOR THERMAL INSULATIONS

DESCRIPTION

CP- 0/ 1 ea er ar er a s a t ugh, dra e, a d re ress e a er ased as for mos t es of er a s a a d fin shing a d s a e ee s. It s er - s heavy bu s reads eas . It s a a a e a ar e s a dard a d s e a ade- ress a colo rs. s d r ra ed a d . ress a

USES

10 11 ea er ar er a s s s r assed r e e a a r e a d ea er r of er a s a s d rs a d d rs, ho , d, a d a e era re ser e. e er, s e s a rea ' a s (a rs der ress re wil ass thro gh s d only e sed er s a s e era re, r d a e era re ser e e e the s a s e se es are vapor ar ers. VI RY CP- 0/ 1 as as fou d se thro ghout e er a s a d s r as a a sed er sed c ll e e a d re a e a s a s. d s r e e as de s ra ed a ea er ar er a s a s ste r when a ed er s re e ard. s e e may e ed by e se of e red a s. V RYL CP- 011 ea er ar er co at ng s Me a Gra col r s e dea a s a r d s a d a ess ee a e .

APPLICATION

CP 10/ 1 ea er ar er a s eas a by r e, r s r ea e ness ra s e r s s e ds a smoo h, a ra e s e e er r ugh s s ra es; read s a s a d e ere s. V CRYL -0 11 a s d e a ed wi h ass er re r es.

ADVANTAGES

- e wet s a e, CP- 0/ 1 ea er ar er a s s a a e. as no s e s a wil a ack s a s r a s.
- e red film s t ugh, e e, a d res s s s common e a s a d many s e s.
- s re res s e s a e s read de being i hin e ra e of a e a a e of er e a d d s ra a e es.

CERTIFIED

- Mee s NFPA a dard 90 a d 90 2 /50 re re e s.
- a es der as Gard S ecif ca i n 1 4 012.
- s r d as ee ested a rd to AST M E- 4 r a e r s of d Ma era s.
- Mee s re re e s r LEED IEQ 4 1 Low-Emi g Ma era s, a s a d a s. VOC: 45 , ess a er a d e e s e s.

CP-10/11 con ains no as es s, ead, er r, r er r compou ds.
See other side for specification and application information.
Visit us on the web at www.fosterproducts.com

COLORS

	TROWEL	SPRAY/BRUSH
White	*10*	*11*
Metallic Gray	*10-1*	*11-1*
Black	*10-2*	*11-2*

(Other colors are available on special order)

WET WEIGHT

11 s / . a (.17 / er)

AVERAGE NON-VOLATILE

6 to 4% by e 4% by e)

SERVICE TEMPERATURE RANGE

(e era re wh ch dr a s s e ed
- 0 180
(0 3°)

APPLICATION TEMPERATURE RANGE

40 100°
(° to 38)

DRYING TIME

rs
Th ough - 24 36 rs
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COVERAGE

6 . a 100 s . ft. l sq m)
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CLEAN-UP

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WATER VAPOR PERMEANCE ASTM E-96

Grea er a 1 0 er r 1 1 0 0 1 dr re ed re

CLASSIFIED UL

GENERAL PURPOSE COATIN G
SURFACE BURNIN G CHARACTERISTICS

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Specialty Construction Brands, Inc.

Cu stom er er e
00 31 9541

1105 Sou h r e a ree
r ra, 0 04

Fax
00 942 856

Suggested Specifications — VI-CRYL® CP-10 CP-11

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NOTES TO SPECIFYING ENGINEER

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Application Guide and Suggested Procedures

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To obtain proper bonding, dusty surfaces shall first be primed with Chil-Seal CP-50A MV1 diluted 50% with water.

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All exterior horizontal surfaces must be sloped at least 1/2 inch per foot (4cm/m) to prevent ponding water.

3. HAND APPLICATION

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4. SPRAY APPLICATION

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CUSTOMER SERVICE: 800-231-9541

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For professional use only. Keep out of reach of children.

Consult Material Safety Data Sheet and container label for further information.

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

Supplier Name
The Mill-Rose Company
7310 Corporate Blvd.
Mentor, OH 44060
(800) 321-3598

Emergency Telephone No.
(800) 321-3598

Date Prepared: June 2007
Replaces: June 2003

Product
Thread Sealing Tape

Trade Names and Synonyms
Low, Medium & High Density Grades,
Blue Monster 3-Wrap

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Ingredients	OSHA PEL	CAS Number	ACGIH TLV
Polytetrafluoroethylene	N/A	9002-84-0	N/A
Petroleum Solvent	N/A	64742-47-8	N/A

SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: N/A
Vapor Pressure (mm Hg): N/A
Vapor Density (air=1): N/A
Solubility in Water: Insoluble

Specific Gravity (H_2O=1): 2.1
Melting Point: N/A
Evaporation Rate (Butyl Acetate=1): N/A
Appearance and Odor: White Polymeric Film/Odorless

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): N/A
Flammable Limits: N/A
Extinguishing Media: Any standard medium
Special Fire Fighting Procedures: Combustible Solid. Will burn if in contact with flame. Combustion ceases when flame is removed. Decomposition on heating above 260°C results in the emission of toxic fumes. Fire fighters to wear self contained breathing apparatus if there is a risk of exposure to products of combustion and decomposition.
Unusual Fire & Explosion Hazards: Toxic fumes given off above 260°C

SECTION 5 - REACTIVITY DATA

Conditions to Avoid: Temperatures above 260°C without adequate ventilation
I**ncompatibility (Materials to avoid):** Alkali Metals, extremely potent oxidizers (e.g. Fluorine, Chlorine Tri-Fluoride), 80% NaOH or KOH, Metal Hydrides such as Boranes (e.g. B2H6), Aluminum Chloride, Ammonia, certain Amines (R-NH2) Imines (RH-NH) and 70% Nitric Acid at temperatures near 260°C. Do not use on oxygen lines.

SECTION 6 - HEALTH HAZARD DATA

Health Hazards (Acute):
Swallowed: No adverse effect known
Eye: see above
Skin: see above
Inhalation: The material is not normally an inhalation hazard at temperatures below 260°C as it remains an inert solid. However, exposure to thermal degradation products at temperatures above 260°C or fumes from tobacco contaminated with particles of the product may result in "Polymer Fume Fever" or influenza -like symptoms (chills, headaches, difficulty in breathing and fever). Symptoms may appear several hours after exposure but will disappear within 24-48 hours. There are exposure standards for decomposition products.

	TWA		STEL	
HF*	ppm	mg/m3	ppm	mg/m3
	3	2.6	Peak Limitation	

*Measured as an inspirable faction

Carbonyl Fluoride is the main decomposition product formed when PTFE is subjected to extended exposure at normal sintering temperatures (400°C). Carbonyl Fluoride is immediately converted to highly corrosive hydrogen fluoride in the presence of moist air.
Health Hazards (Chronic): No adverse effects known.
Toxicity: No LD50 data is available on the product. No toxicity was observed in male/female rats when fed PTFE (up to 25%) for 90 days. Local sarcomas were induced in mice and rats implanted subcutaneously or intraperitoneally with PFTE. However, this is not considered relevant to normal industrial usage.
Carcinogenicity: PTFE has been classified by the International Agency for Research into Cancer as a group III agent. As such it is not classifiable as to its carcinogenicity to humans.
Emergency and First Aid Procedures: Inhalation: Remove victim from exposure - avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing labored and patient cyanotic (blue) insure that airways are clear and have a qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In event of cardiac arrest apply external cardiac massage. Seek medical advice.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilt: Sweep Up
Waste Disposal Method: Burning is not recommended. Comply with local regulations
Precautions to be taken in Handling and Storage: Keep away from flames. Store below 260°C

SECTION 8 - CONTROL MEASURES

Respiratory Protection: No special controls are necessary if used within recommended operation temperatures (ie -260°C to +260°C).
Ventilation: See above
Protective Gloves: See above
Eye Protection: See above
Other Protective Clothing or Equipment: See above
Work/Hygienic Practices: See above

NOTICE FROM THE MILL-ROSE COMPANY

The information in this Material Safety Data Sheet (MSDS) relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. We believe that the information contained herein is current as of the date of the MSDS. Since use of this information and these opinions and the conditions of use of the product are not within the control of The Mill-Rose Company, it is the user's obligation to determine the conditions of safe use of the product.

Material Safety Data Sheet

SURE-SEAL LAP SEALANT **MSDS No. 302174**

Date of Preparation: 09/8/2011 Revision: 018

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: SURE-SEAL LAP SEALANT
Chemical Formula: Mixture
General Use: Lap Sealant
Manufacturer: Carlisle SynTec, 1285 Ritner Highway, Carlisle, PA, 17013 , Phone: 800-479-6832
Emergency Phone Number: CHEMTREC(USA): 800-424-9300

Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Danger – Highly flammable liquid and vapor
Warning – Causes skin irritation
Warning – Causes serious eye irritation
Warning – May be harmful if swallowed and enters airways
Warning – May cause an allergic skin reaction
Warning – May cause drowsiness and dizziness

HMIS	
H	1
F	4
R	0
PPE†	

†Sec. 8

Potential Health Effects

Primary Entry Routes: Skin contact, eye contact, inhalation, ingestion.
Target Organs:
Acute Effects
Inhalation: throat irritation on short term exposure to liquid or vapor. Aspiration into lungs can cause chemical pneumonitis which can be fatal.
Eye: irritation on short-term exposure to liquid or vapor.
Skin: irritation on short-term exposure to liquid or vapor.
Ingestion: ingestion can cause gastrointestinal irritation
Carcinogenicity: IARC, NTP, and OSHA do not list this product as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure: Respiratory symptoms associated with pre-existing lung disorders and pre-existing heart disorders may be aggravated by exposure to this material.
Chronic Effects: Overexposure may result in headache, dizziness, fatigue, nausea, and possible unconsciousness, even asphyxiation. Moderate irritation of skin, eyes and mucous membranes of upper respiratory tract on prolonged/repeated contact. Dermatitis and defatting of the skin. Chronic exposure may cause reversible liver and kidney injury. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Section 3 – Ingredient Information

Hazardous Ingredients	CAS Number	**% wt**
Light Aliphatic Solvent Naphtha	64742-89-8	15-40
Amorphous Silica	7631-86-9	3-7
Additional Ingredients	CAS Number	**% wt**
Ethylene-Propylene Rubber	Proprietary	
Polybutene	Proprietary	
Calcium Carbonate	Proprietary	
Ground Coal	Proprietary	
Paraffinic Oil	Proprietary	
Treated Clay	Proprietary	

Section 4 - First Aid Measures

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately.
Eye Contact: Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

Skin Contact: Immediately flush skin with running water and remove contaminated clothing. Wash exposed area with soap and water. Get medical attention.
Ingestion: Do not induce vomiting. Get medical attention immediately.
Special Precautions/Procedures: Whenever possible, remove the worker from the source of contamination.

Section 5 - Fire-Fighting Measures

Flash Point: 4.4°C (40°F)
Flash Point Method: TCC
Autoignition Temperature: 249°C (480°F)
LEL: 0.9%v\v
UEL: 7.0%v/v

Flammability Classification: Division 2. Ignition can occur when this product is exposed to heat, sparks, or flame.
Extinguishing Media: In case of fire, use dry chemical, carbon dioxide, or foam. Water may not be effective as an extinguishing agent. Water fog or spray may be used to provide a smothering effect on fire and to cool fire-exposed containers and surrounding combustibles. Do not use a solid stream of water because it can scatter and spread the fire.
Unusual Fire or Explosion Hazards: Flammable. Store and use away from all sources of heat, flame, or sparks. Do not smoke while applying. Vapors are heavier than air and may travel along ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point and flash back. All containers should be grounded when material is transferred.
Hazardous Combustion Products: Toxic gases or vapors, such as carbon monoxide or carbon dioxide, may be released in a fire.
Fire-Fighting Instructions: This product contains solvents that are dangerous fire and explosion hazards when exposed to heat or flame. Fire fighters should wear self-contained breathing apparatus and full protective clothing with a full face piece operated in the positive pressure demand mode.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Remove all sources of ignition. Avoid breathing vapors. Use self-contained breathing apparatus in enclosed area. Ventilate area. Contain and remove with inert absorbent materials and non-sparking tools.
Large Spills:
Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Cleanup: Clean-up spill as soon as possible. Collect any excess material with absorbent pads, sand or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all laws and regulations.
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Use away from all sources of heat, flame, or sparks. Do not smoke while using. Handling equipment must be grounded to prevent sparking. Handle with non-sparking tools. Wash with soap and water before eating or drinking. Launder contaminated clothing. KEEP OUT OF REACH OF CHILDREN.
Storage Requirements: Keep containers cool, dry, and store way from all sources of heat, flame, and sparks. Keep containers tightly closed and store with adequate ventilation. Do not pressurize, cut, weld, or grind the containers or empty containers which may contain residual product and solvent vapors that may ignite explosively.

Section 8 - Exposure Controls / Personal Protection

Hazardous Ingredients:	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
Ingredient	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Light Aliphatic Solvent Naphtha	300 ppm	400 ppm	300 ppm	None estab.	350 ppm	None estab.	None estab.
Amorphous Silica	80mg/m^3/ %SiO_2 or 20 ppb	None estab.	10 mg/m^3	None estab.	6 mg/m^3	None estab.	3000 mg/m^3

Engineering Controls: Do not use in enclosed areas without proper explosion-proof ventilation. General and local exhaust ventilation must be sufficient to control vapor concentrations and keep the vapor concentration below 300 ppm.
Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Administrative Controls:
Respiratory Protection: A NIOSH approved respirator must be used if vapor concentration is 300 ppm or above.
Protective Clothing/Equipment: Permeation resistant gloves (that meet ANSI/ISEA 105-2005) recommended. Glasses or goggles recommended. Industrial shoes to protect feet from sealant contact. Long sleeves, long trousers to protect skin from sealant contact. Protective skin creams or emollients useful.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance and Odor: Black, viscous paste with hydrocarbon solvent odor
Odor Threshold: Not available
Vapor Pressure: 45mm Hg at 25°C (77°F)
Vapor Density (Air=1): 3.9
Specific Gravity (H_2O=1, at 4°C/39°F): 1.03-1.04
pH: N/A

Water Solubility: Negligible
Boiling Point: 113-142°C (235-288°F)
Freezing/Melting Point: <-18°C (<0°F)
% Volatile: 36-38
Evaporation Rate: 1.6
VOC: 390 – 400 gpl
Flash Point: 4.4°C (40°F)
Flash Point Method: TCC
Autoignition Temperature: 249°C (480°F)
LEL: 0.9%v\v
UEL: 7.0%v/v

Section 10 - Stability and Reactivity

Stability: Stable.
Possibility of Hazardous Reactions: Will not occur.
Chemical Incompatibilities: Strong oxidizing agents, acids, bases.
Conditions to Avoid: Heat, sparks, and flames; ignition sources.
Hazardous Decomposition Products: Toxic gases or vapors, such as carbon monoxide, carbon dioxide, or oxides of nitrogen may be released in a fire.

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: Irritating

Skin Effects: Product toxicity has not been determined. Following are component data:
Light Aliphatic Solvent Naphtha:
Rat, dermal, LD_{50}: > 4 mL/kg

Acute Inhalation Effects: Product toxicity has not been determined.
Following are component data:
Light Aliphatic Solvent Naphtha:
Rat, inhalation, LC_{50}: 3400 ppm for four hours

Acute Oral Effects: Product toxicity has not been determined.
Following are component data:
Light Aliphatic Solvent Naphtha:
Rat, oral, LD_{50}: > 8 mL/kg
Chronic Effects: May cause skin sensitization in some people
Carcinogenicity: No evidence
Mutagenicity: No evidence
Teratogenicity: No evidence

Section 12 - Ecological Information

Ecotoxicity: Not known
Environmental Fate: Not known
Environmental Degradation: Not known
Soil Absorption/Mobility: Not known

Section 13 - Disposal Considerations

Disposal: Dispose of in accordance with all local, state, and federal regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Adhesives, 3, UN1133, II
Shipping Symbols: Flammable
Hazard Class: 3
ID No.: UN1133
Packing Group: II
Label: red caution label required
Special Provisions (172.102): 149, B52, IB2, T4, TP1, TP8

Packaging Authorizations
a) Exceptions: 173.150
b) Non-bulk Packaging: 173.173
c) Bulk Packaging: 173.242

Quantity Limitations
a) Passenger, Aircraft, or Railcar: 5 L
b) Cargo Aircraft Only: 60 L

Vessel Stowage Requirements
a) Vessel Stowage: B
b) Other: ---

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

TSCA (Toxic Substances Control Act) Status:
TSCA (United States) – The intentional ingredients of this product are listed.

CERCLA Hazardous Substance RQ – 40 CFR 302.4 (a): Not listed

CERCLA RQ – 40 CFR 302.4 (b)
Materials with a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 311/312 Codes:
Immediate (X) Delayed (X) Fire (X) Reactive ( ) Sudden Release of Pressure ( )

SARA 313 Components (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

OSHA Regulations:
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
OSHA Specifically Regulated Substance (29 CFR 1910): None listed

EPA Accidental Release Prevention (40 CFR 68): None listed

State Regulations:

California Proposition 65:

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause reproductive harm:
None

Delaware Air Quality Management List: None

Massachusetts Hazardous Substances List:

Chemical Name	CAS #	Codes
Amorphous Silica	7631-86-9	2, 4, 5, F5

Michigan Critical Materials Registry: None

Minnesota Hazardous Substance:

Chemical Name	Codes	Hazards	Carcinogen?
Silica	ANOR	- -	*T*

New Jersey RTK Label Information: None

New York List of Hazardous Substances: None

Pennsylvania RTK Label Information

Chemical Name	CAS #	Code
Silica	7631-86-9	---

Washington Air Contaminant: None

Section 16 - Other Information

Prepared By: Research & Development
Revision Notes: General review

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