

M90015
Silicone Rubber Sealant

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured By: Waterford Plant
260 Hudson River Rd
Waterford NY 12188

Revised: 12/09/2009

Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS

CHEMTREC 1-800-424-9300

Chemical Family/Use: Sealant

Formula: Mixture

HMIS

Flammability: 0 Reactivity: 0 Health: 1

NFPA

Flammability: 0 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! Irritating to eyes, respiratory system and skin. May be harmful by inhalation, in contact with skin and if swallowed. May cause central nervous system depression.

Color: white

Odor: Trace Ammonia

POTENTIAL HEALTH EFFECTS

INGESTION

May be harmful if swallowed. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression.

SKIN

Uncured product contact will irritate lips, gums and tongue. Skin irritation is possible after contact with the uncured product. May be harmful if absorbed through skin.

INHALATION

May be harmful if inhaled. Causes mild respiratory tract irritation. May also cause other effects as listed under "Ingestion". Applies in uncured state.

EYES

Eye irritation on contact with the uncured product.

MEDICAL CONDITIONS AGGRAVATED

Pre-existing skin or respiratory diseases.

SUBCHRONIC (TARGET ORGAN)

Central nervous system; Skin

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CHRONIC EFFECTS / CARCINOGENICITY

This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

ROUTES OF EXPOSURE

Eyes; Inhalation; Ingestion; Absorption through skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
<u>A. HAZARDOUS</u>		
Octamethylcyclotetrasiloxane	556-67-2	1 - 5 %
Hexamethyldisilazane	999-97-3	1 - 5 %
Methyltrimethoxysilane	1185-55-3	1 - 5 %
<u>B. NON-HAZARDOUS</u>		
Methoxypolydimethylsiloxane	68037-58-1	60 - 100 %
Treated Filler	60842-32-2	10 - 30 %
Polydimethylsiloxane	63148-62-9	10 - 30 %
Treated Fumed Silica	68583-49-3	10 - 30 %
Siloxanes & Silicones, Dimethylpolymers w/Methylsilsesquioxanes	68554-67-6	1 - 5 %

4. FIRST AID MEASURES

INGESTION

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

SKIN

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. If skin irritation persists, call a physician.

INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If

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breathing is difficult give oxygen. Get medical attention.

EYES

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

NOTE TO PHYSICIAN

None known.

5. FIRE-FIGHTING MEASURES

FLASH POINT:	110.00 °C; 230 °F
METHOD:	closed cup
IGNITION TEMPERATURE:	not applicable
FLAMMABLE LIMITS IN AIR - LOWER (%):	not applicable
FLAMMABLE LIMITS IN AIR - UPPER (%):	not applicable

SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA

All standard extinguishing agents are suitable.

SPECIAL FIRE FIGHTING PROCEDURES

Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section. Increase area ventilation.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Use only in well-ventilated areas. Avoid contact with skin and eyes. Keep away from children. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to

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lenses and cause severe eye irritation. Store away from heat, sources of ignition, and incompatibles.

STORAGE

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Eyewash stations; Showers

RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

PROTECTIVE GLOVES

Cloth gloves.

EYE AND FACE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

<u>Component</u>	<u>CAS RN</u>	<u>Source</u>	<u>Value</u>
Octamethylcyclotetrasiloxane	556-67-2	Z_INTL_OELREL	5 ppm

Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average; INTL REL - Internal Recommended Exposure Limit

OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT - C & F:	not applicable
VAPOR PRESSURE (20 C) (MM HG):	< 1
VAPOR DENSITY (AIR=1):	> 1
FREEZING POINT:	not applicable
ODOR:	Trace Ammonia

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COLOR:	white
EVAPORATION RATE (BUTYL ACETATE=1):	< 1
SPECIFIC GRAVITY (WATER=1):	1.03
DENSITY:	ca. 1.035 g/cm3
ACID / ALKALINITY (MEQ/G):	not applicable
pH:	not applicable
SOLUBILITY IN WATER (20 C):	negligible
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT):	Toluene
VOLATILE ORGANIC CONTENT:	2.8 %(m)
VOC EXCL. H2O & EXEMPTS (G/L):	33 g/l

10. STABILITY AND REACTIVITY

STABILITY

Stable

HAZARDOUS POLYMERIZATION

Will not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

Methanol; Carbon dioxide (CO₂); formaldehyde; Carbon monoxide; Ammonia; Silicon dioxide.

INCOMPATIBILITY (MATERIALS TO AVOID)

None known.

CONDITIONS TO AVOID

Vapor and/or liquid react with water to form ammonia.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL

Remarks: Unknown

ACUTE DERMAL

Remarks: Unknown

ACUTE INHALATION

Remarks: Unknown

OTHER

None.

SENSITIZATION

no data available

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SKIN IRRITATION

no data available

EYE IRRITATION

no data available

MUTAGENICITY

Unknown

OTHER EFFECTS OF OVEREXPOSURE

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive., Methanol released during curing., Ammonia released during curing., Octamethylcyclotetrasiloxane Ingestion: Rodents given large doses via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appeared normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) with octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 days prior to mating through mating, gestation and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended period of off-spring delivery (dystocia). These results were not observed at the 70 and 300 ppm dosing levels. Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150 or 700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of these effects were limited to the 700 ppm exposure group. The relevance of this data to humans is unclear. Further studies are ongoing. In developmental toxicity studies, rats and rabbits were exposed to octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

no data available

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DISTRIBUTION

no data available

CHEMICAL FATE

no data available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Further Information:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. REGULATORY INFORMATION

Inventories

EU list of existing chemical substances	y (positive listing)
Canada DSL Inventory	y (positive listing)
Canada NDSL Inventory	n (Negative listing)
Japan Inventory of Existing & New Chemical Substances (ENCS)	n (Negative listing)
Korea Existing Chemicals Inventory (KECI)	n (Negative listing)
China Inventory of Existing Chemical Substances	n (Negative listing)
Australia Inventory of Chemical Substances (AICS)	n (Negative listing)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	n (Negative listing)
TSCA list	y (positive listing)

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

US Regulatory Information

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SARA (311,312) HAZARD CLASS

Acute Health Hazard; Chronic Health Hazard

SARA (313) CHEMICALS

CALIFORNIA PROPOSITION 65

WARNING! This product contains a chemical known in the State of California to cause cancer.
108-88-3, Toluene.

Canadian Regulatory Information

WHMIS HAZARD CLASS

D2A - Very Toxic Material Causing Other Toxic Effects

D2B - Toxic Material Causing Other Toxic Effects

16. OTHER INFORMATION

OTHER

C = ceiling limit NEGL = negligible EST = estimated NF = none found NA = not applicable
UNKN = unknown NE = none established REC = recommended ND = none determined
V = recommended by vendor SKN = skin TS = trade secret R = recommended
MST = mist NT = not tested STEL = short term exposure limit ppm = parts per million
ppb = parts per billion By-product= reaction by-product, TSCA inventory status not required under 40 CFR part 720.30(h-2)., These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.