

**RTV160
POLYDIMETHYLSILOXANE SEALANT****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Manufactured By: Momentive performance material
260 Hudson River Rd
Waterford NY 12188

Revised: 07/14/2010
Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
CHEMTREC 1-800-424-9300

Chemical Family/Use: Sealant
Formula: Mixture

HMIS

Flammability: 2 Reactivity: 0 Health: 2

NFPA

Flammability: 2 Reactivity: 0 Health: 2

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

WARNING! Irritating to eyes, respiratory system and skin. May be harmful if swallowed.

Form: paste**Color:** white**Odor:** sweet**POTENTIAL HEALTH EFFECTS****INGESTION**

May be harmful if swallowed.

SKIN

Uncured product contact will irritate lips, gums and tongue. Skin irritation is possible after contact with the uncured product.

INHALATION

Causes mild respiratory tract irritation. Applies in uncured state.

EYES

Eye irritation on contact with the uncured product.

MEDICAL CONDITIONS AGGRAVATED

None known.

SUBCHRONIC (TARGET ORGAN)

None known.

CHRONIC EFFECTS / CARCINOGENICITY

This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or

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suspected carcinogen by NTP, IARC, or OSHA.

ROUTES OF EXPOSURE

Eyes; dermal

OTHER

Contains octamethylcyclotetrasiloxane which may cause reproductive effects based on animal data.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>PRODUCT COMPOSITION</u> | <u>CAS REG NO.</u> | <u>WGT. %</u> |
|--|--------------------|---------------|
| <u>A. HAZARDOUS</u> | | |
| Methyltrimethoxysilane | 1185-55-3 | 1 - 5 % |
| Octamethylcyclotetrasiloxane | 556-67-2 | 0.1 - 1 % |
| Methyltrimethoxysilane | 1185-55-3 | 1 - 5 % |
| Tris(3(trimethoxysilyl)propyl)isocyanurate | 26115-70-8 | 1 - 5 % |
| 1,3 PROPANEDIOXYTITANIUM-BIS- Octamethylcyclotetrasiloxane | 36497-11-7 | 1 - 5 % |
| 556-67-2 | 556-67-2 | 0.1 - 1 % |
| Silica | 7631-86-9 | 0.1 - 1 % |
| Polydimethylsiloxane | 63148-62-9 | 5 - 10 % |
| Dimethylpolysiloxane | 70131-67-8 | 10 - 30 % |
| Titanium Dioxide | 13463-67-7 | 1 - 5 % |
| Methyltrimethoxysilane | 1185-55-3 | 1 - 5 % |
| Tris(3(trimethoxysilyl)propyl)isocyanurate | 26115-70-8 | 1 - 5 % |
| <u>B. NON-HAZARDOUS</u> | | |
| Dimethylpolysiloxane | 70131-67-8 | 60 - 100 % |
| Treated Silica | 68937-51-9 | 5 - 10 % |

4. FIRST AID MEASURES**INGESTION**

Do not induce vomiting. If victim is conscious, give 1-3 glasses of water to drink. Never give

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anything by mouth to an unconscious person. Get medical attention if irritation persists.

SKIN

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

INHALATION

Move to fresh air. If symptoms persist, call a physician.

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

Treatment is symptomatic and supportive.

5. FIRE-FIGHTING MEASURES

| | |
|---|-------------------|
| FLASH POINT: | ca. 75 °C; 167 °F |
| METHOD: | closed cup |
| IGNITION TEMPERATURE: | no data available |
| FLAMMABLE LIMITS IN AIR - LOWER (%): | no data available |
| FLAMMABLE LIMITS IN AIR - UPPER (%): | no data available |

SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is expected; material has a flash point below 200 F.

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 intended for flammable materials for disposal. Wear proper protective equipment as specified in the protective equipment section. Increase area ventilation. Wash walking surfaces with detergent and water to reduce slipping hazard.

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Keep container closed when not in use. Avoid contact with skin and eyes. CAUTION! Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. Product releases methanol during application and curing. Store away from heat, sources of ignition, and incompatibles. Keep away from children.

STORAGE

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS**

Eyewash stations; Showers; Exhaust ventilation

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

Rubber gloves

EYE AND FACE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

| Component | CAS RN | Source | Value |
|------------------------------|---------------|---------------|----------------------------------|
| Octamethylcyclotetrasiloxane | 556-67-2 | Z_INTL_OELREL | 5 ppm |
| Titanium Dioxide | 13463-67-7 | ACGIH, TWA | 10 mg/m ³ |
| Titanium Dioxide | 13463-67-7 | OSHA Z1, PEL | Total dust. 15 mg/m ³ |

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).

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| | |
|---|-----------------------------|
| BOILING POINT - C & F: | >93 °C; 199 °F |
| VAPOR PRESSURE (20 C) (MM HG): | Unknown |
| VAPOR DENSITY (AIR=1): | no data available |
| FREEZING POINT: | no data available |
| PHYSICAL STATE: | paste |
| ODOR: | sweet |
| COLOR: | white |
| EVAPORATION RATE (BUTYL ACETATE=1): | no data available |
| SPECIFIC GRAVITY (WATER=1): | 1.04 |
| DENSITY: | ca. 1.040 g/cm ³ |
| pH: | not applicable |
| SOLUBILITY IN WATER (20 C): | insoluble |
| SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT): | Soluble in toluene |
| VOLATILE ORGANIC CONTENT: | 3.8 %(m) |
| VOC EXCL. H₂O & EXEMPTS (G/L): | 40 g/l |

10. STABILITY AND REACTIVITY**STABILITY**

Stable

HAZARDOUS POLYMERIZATION

Hazardous polymerisation does not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

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

INCOMPATIBILITY (MATERIALS TO AVOID)

None known.

CONDITIONS TO AVOID

Keep away from heat and sources of ignition.

11. TOXICOLOGICAL INFORMATION**ACUTE ORAL**

Remarks: Unknown

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ACUTE DERMAL

Remarks: Unknown

ACUTE INHALATION

Remarks: no data available

OTHER

Octamethylcyclotetrasiloxane Ingestion: Rodents given large doses via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear 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, liverweights 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 periods 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 are limited to the 700 ppm exposure group. These results have been shown to be rat-specific. 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.

SENSITIZATION

no data available

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

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for formaldehyde is available from Momentive., Methanol released during curing.

12. ECOLOGICAL INFORMATION**ECOTOXICITY**

no data available

DISTRIBUTION

no data available

CHEMICAL FATE

no data available

13. DISPOSAL CONSIDERATIONS**DISPOSAL METHOD**

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

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: Combustible liquid, n.o.s.
DOT HAZARD CLASS: CBL
DOT LABEL (S): NON
UN/NA NUMBER: NA 1993
PACKING GROUP: III

Further Information: This product is Combustible as defined by the US Department of Transport (DOT). It is regulated for transport in the US in container > 119 gallons. The product is not regulated for transport by the IATA, ADR/RID, ADNR or the IMDG regulations.

15. REGULATORY INFORMATION**Inventories**

Australia Inventory of Chemical Substances (AICS) y (positive listing)
EU list of existing chemical substances y (positive listing)
Japan Inventory of Existing & New Chemical Substances (ENCS) y (positive listing)
China Inventory of Existing y (positive listing)

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Chemical Substances

Korea Existing Chemicals Inventory (KECI) y (positive listing)
Canada DSL Inventory y (positive listing)
Canada NDSL Inventory n (Negative listing)
Philippines Inventory of Chemicals and Chemical Substances (PICCS) y (positive listing)
TSCA list y (positive listing) On TSCA Inventory
For inventories that are marked as quantity restricted or special cases, please contact Momentive.

US Regulatory Information**SARA (311,312) HAZARD CLASS**

Acute Health Hazard; Chronic Health Hazard; Fire Hazard

SARA (313) CHEMICALS**CALIFORNIA PROPOSITION 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

CALIFORNIA PROPOSITION 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Regulatory Information**WHMIS HAZARD CLASS**B3 - Combustible Liquid
D2A - Very 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.

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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.