



GE Silicones

MATERIAL SAFETY DATA SHEET

GE5100 12C-CRTRG(0.730LB-0.331KG)

Trade Name Silicone Rubber Sealant

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured By GES Waterford Plant
260 Hudson River Rd
Waterford NY 12188
Revised: 03/23/2004
Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
Chemical Family/Use: Sealant
Formula: Mixture
CHEMTREC 1-800-424-9300

HMIS

Flammability	0	REACTIVITY	0	Health	1
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NFPA

Flammability	0	REACTIVITY	0	Health	1
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2. COMPOSITION INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION	CAS REG NO.	WGT. %
A. HAZARDOUS		
Hexamethyldisilazane	999-97-3	1 - 5 %
Octamethylcyclotetrasiloxane	556-67-2	1 - 5 %
Methyltrimethoxysilane	1185-55-3	1 - 5 %
B. NON-HAZARDOUS		
SILOXANES & SILICONES, DIMETHYL-POLYMERS W/ METHYLSILSESQUOXANES	68554-67-6	1 - 5 %
Treated fumed silica	68583-49-3	10 - 30 %
Polydimethylsiloxane	63148-62-9	10 - 30 %
Methoxypolydimethylsiloxane	68037-58-1	60 - 90 %

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! Irritating to eyes, respiratory system and skin. May be harmful if swallowed. Adverse liver and reproductive effects reported in animals.



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Solid Translucent MILD AMINE

POTENTIAL HEALTH EFFECTS

INGESTION

May be harmful if swallowed.

SKIN

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

INHALATION

Cause 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)

Reproductive hazard May cause liver effects.

CHRONIC EFFECTS / CARCINOGENICITY

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

ROUTES OF EXPOSURE

dermalEyes

OTHER

Methanol released during curing. Ammonia released during curing. 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. An MSDS for formaldehyde is available from GE Silicones. Additional information on the toxicological effects of this material or its ingredients can be found in Section 11 - Toxicological Information.

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.



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SKIN

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. Get medical attention if irritation persists.

INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYES

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

NOTE TO PHYSICIAN

None known.

5. FIRE-FIGHTING MEASURES

FLASH POINT

METHOD:

NA

IGNITION TEMPERATURE

Unknown

FLAMMABLE LIMITS IN AIR - LOWER (%)

NA

FLAMMABLE LIMITS IN AIR - UPPER (%)

NA

SENSITIVITY TO MECHANICAL IMPACT:

No

SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA

All standard firefighting media.

SPECIAL FIRE FIGHTING PROCEDURES

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

B. 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.



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7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

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>Chemical</u>	<u>CAS REG NO.</u>	<u>ACGIH</u>	<u>OSHA</u>	<u>Supplier</u>
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9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT - C & F	NA
VAPOR PRESSURE (20 C) (MM HG)	NA
VAPOR DENSITY (AIR=1)	
FREEZING POINT	NA
MELTING POINT	NA
PHYSICAL STATE	Solid
ODOR	MILD AMINE



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COLOR	Translucent
EVAPORATION RATE (BUTYL ACETATE=1)	
SPECIFIC GRAVITY (WATER=1)	1.02
DENSITY (KG/M3)	1.027
ACID / ALKALINITY (MEQ/G)	NA
pH	NA
VOLATILE ORGANIC CONTENT (VOL)	NA
SOLUBILITY IN WATER (20 C)	Insoluble
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT)	Soluble in toluene
VOC EXCL. H2O & EXEMPTS (G/L)	33.00

10. STABILITY AND REACTIVITY

STABILITY

Stable

HAZARDOUS POLYMERIZATION

Will not occur

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

MethanolCarbon dioxide (CO₂)formaldehydeCarbon monoxideammoniaSilicon dioxide.Oxides of nitrogen

INCOMPATIBILITY (MATERIALS TO AVOID)

None known

CONDITIONS TO AVOID

None known.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL

Unknown

ACUTE DERMAL

Unknown

ACUTE INHALATION

Unknown

OTHER:

Octamethylcyclotetrasiloxane Ingestion: Rodents given large doses via oral gavage of



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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, 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 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/ontogenicity 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. The relevance of these 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 tetragenic effects (birth defects) were observed in either study.

SENSITIZATION

no data available

SKIN IRRITATION

no data available

EYE IRRITATION

no data available

MUTAGENICITY

Unknown

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY

no data available

CHEMICAL FATE



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no data available

DISTRIBUTION

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD

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

14. TRANSPORT INFORMATION

Not Regulated if Section is Blank

15. REGULATORY INFORMATION

US Regulatory Information

CERCLA

PRODUCT COMPOSITION

Chemical

CERCLA Reportable Quantity

CLEAN AIR ACT

CLEAN WATER ACT

SARA SECTION 302

SARA (311,312) HAZARD CLASS

Acute Health Hazard

Chronic Health Hazard

SARA (313) CHEMICALS



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Canadian Regulatory Information

WHMIS HAZARD CLASS

OTHER:

SCHDLE B/HTSUS

3214.10 00.10 Mastic based on rubber

ECCN:

EAR99

CALIFORNIA PROPOSITION 65

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

16. OTHER INFORMATION

OTHER

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. C = ceiling limit NEGL = negligible EST = estimated NF = none found NA = not applicable UNKN = unknown NE = none established REC = recommended NO = none determined V = recommended by vendor By-product = reaction by-product; TSCA inventory status not required under 40 CFR part 720 30(h-2) SKN = skin TS = trade secret R = recommended MST = mist ST = short term exposure limit NT = not tested ppm = parts per million ppb = parts per billion