GE Silicones

FORMAT: USA
PRODUCT: SCS1000-0002

MATERIAL SAFETY DATA SHEET
SILICONE RUBBER SEALANT

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

EMERGENCY PHONE (24 HRS)
(518) 237-3330

SUPPLIED BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

EMERGENCY PHONE (24 HRS)
(518) 237-3330

REVISED: 09/21/00
PREPARER: J.W.GORDON
CHEMICAL FAMILY/USE: SILICONE RUBBER SEALANT
FORMULA: MIXTURE

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION/ CAS REG NO.	APPROX. WGT. %	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL TWA	OSHA PEL STEL	UNITS
1. HAZARDOUS						
METHYLTRIACETOXYSILANE						
4253-34-3	1-5	10(R)	NE	10(R)	NE	PPM
OCTAMETHYLCYCLOTETRASILOXANE						
556-67-2	1-5	5 PPM	NE	GE REC	NE	GUIDE
2. NON-HAZARDOUS						
SILANOL/STPD SILOXANE W/ME SLSQXNS						
68554-67-6	5-10	NF	NE	NF	NE	NA
TETRAMER TREATED FUMED SILICA						
68583-49-3	10-30	10	NE	15	NE	MG/M3
POLYDIMETHYLSILOXANE SILANOL/STPD						
70131-67-8	60-80	-	NE	-	NE	-

See Section 15 for description of any WHMIS Trade Secret(s).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Avoid contact with eyes.
May irritate the skin.
Uncured product contact irritates eyes.
Vinegar odor
Translucent solid
POTENTIAL HEALTH EFFECTS:
INGESTION:
May be harmful if swallowed.
SKIN CONTACT:
Uncured product contact will irritate lips, gums and tongue.
Uncured product contact may irritate the skin.
INHALATION:
Causes irritation of the mouth, nose, and throat.
Applies only in uncured state.
EYE CONTACT:
Uncured product contact irritates eyes.
MEDICAL CONDITIONS AGGRAVATED:
None known.
SUBCHRONIC (TARGET ORGAN) EFFECTS:
Reproductive disorders.
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.
PRODUCTS/INGREDIENTS
This space reserved for special use.
PRINCIPLE ROUTES OF EXPOSURE:
Dermal - skin.
Eyes.
Inhalation.
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 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 statically 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/ongogenicity 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 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 teratogenic effects (birth defects) were observed in either study.

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.

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4. FIRST AID MEASURES

INGESTION:
Rinse mouth with water several times.
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:
Move person to fresh air.

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.

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5. FIRE FIGHTING MEASURES

FLASH POINT: NA (C) NA (F)
METHOD : NA
IGNITION TEMP : UNK (C) UNK (F)
FLAMMABLE LIMITS IN AIR - LOWER (%): UNK
FLAMMABLE LIMITS IN AIR - UPPER (%): UNK
SENSITIVITY TO MECHANICAL IMPACT (Y/N): NO
SENSITIVITY TO STATIC DISCHARGE:
Sensitivity to static discharge is not expected.
EXTINGUISHING MEDIA:
All standard firefighting media
SPECIAL FIREFIGHTING PROCEDURES:
None known.

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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.

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7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Avoid contact with skin and eyes.
Use only in a well ventilated area.
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 acetic acid during application and curing.
Use mechanical ventilation to stay below TLV of 10 ppm acetic acid.
Uncured product contact irritates eyes.
Uncured product contact may irritate skin.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Eyewash stations.
Use in a well ventilated area.
RESPIRATORY PROTECTION:
Use in a well ventilated area.
Use approved NIOSH respiratory protection if TLV exceeded or overexposure is likely.
PROTECTIVE GLOVES:
Cloth gloves.
EYE AND FACE PROTECTION:
Safety glasses.
OTHER PROTECTIVE EQUIPMENT:
None known.
VENTILATION:
Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT INFORMATION:

BOILING POINT	:	NA	(C)	NA	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	UNK			
1□ VAPOR DENSITY (AIR=1)	:	NA			
FREEZING POINT	:	NA	(C)	NA	(F)
MELTING POINT	:	NA	(C)	NA	(F)
PHYSICAL STATE	:	SOLID			
ODOR	:	ACETIC ACID			
COLOR	:	WHITE			
ODOR THRESHOLD (PPM)	:	UNK			
% VOLATILE BY VOLUME	:	<3.9			
EVAP. RATE(BUTYL ACETATE=1)	:	<1			
SPECIFIC GRAVITY (WATER=1)	:	1.04			
DENSITY (KG/M3)	:	1040			
ACID/ALKALINITY (MEQ/G)	:	UNK			
PH	:	NA			
VOC EXCL.H2O & EXEMPTS(G/L)	:	<41			
SOLUBILITY IN WATER (20 C)	:	INSOLUBLE			
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT)		TOLUENE			

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10. STABILITY AND REACTIVITY

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:
Carbon monoxide.
Carbon dioxide.
Silicon dioxide.
Acetic acid.
Formaldehyde.
INCOMPATIBILITY (MATERIALS TO AVOID):
None known.
CONDITIONS TO AVOID:
None known.

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11. TOXICOLOGICAL INFORMATION

METHYLTRIACETOXYSILANE
ACUTE ORAL LD50 (MG/KG): 2,060 (RAT)
ACUTE DERMAL LD50 (MG/KG): NONE FOUND
ACUTE INHALATION LC50 (MG/L): NONE FOUND
OTHER:
None.

AMES TEST:

OCTAMETHYLCYCLOTETRASILOXANE
1□ ACUTE ORAL LD50 (MG/KG): >64,000 (RAT)
ACUTE DERMAL LD50 (MG/KG): >16,000 (RBT)
ACUTE INHALATION LC50 (MG/L): >41MG/L/6HR(RAT)
OTHER:
Non-irritating to the skin (human).
AMES TEST:

SILANOL/STPD SILOXANE W/ME SLSQXNS
ACUTE ORAL LD50 (MG/KG): >40,000 RAT,ESTM.
ACUTE DERMAL LD50 (MG/KG): NONE FOUND
ACUTE INHALATION LC50 (MG/L): >535 MG/L ESTM.
OTHER:
None.

AMES TEST:

TETRAMER TREATED FUMED SILICA
ACUTE ORAL LD50 (MG/KG): NA
ACUTE DERMAL LD50 (MG/KG): NA
ACUTE INHALATION LC50 (MG/L): NA
OTHER:

None.

AMES TEST:

POLYDIMETHYLSILOXANE SILANOL/STPD
ACUTE ORAL LD50 (MG/KG): >40000 RAT
ACUTE DERMAL LD50 (MG/KG): NON-IRRITATING RBT
ACUTE INHALATION LC50 (MG/L): >535 RAT
OTHER:
None.

AMES TEST:

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12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data at this time
CHEMICAL FATE INFORMATION: No data at this time

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13. DISPOSAL CONSIDERATIONS

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

1SH 14. TRANSPORT INFORMATION

DOT SHIPPING NAME: NONE
DOT HAZARD CLASS: NOT DOT REGULATED
DOT LABEL(S): NONE
UN/NA NUMBER: NONE
PLACARDS: NONE
IATA:
NOT REGULATED BY IATA
IMO IMDG-code: NOT REGULATED FOR OCEAN TRANSPORTATION
EMS No: NA
EUROPEAN CLASS:
RID (OCTI): NA
ADR (ECE) : NA
RAR (IATA): NA

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15. REGULATORY INFORMATION

SARA SECTION 302:
None Found
SARA (311,312) HAZARD CLASS:
ACUTE HEALTH HAZARD
CHRONIC HEALTH HAZARD
SARA (313) CHEMICALS:
NONE
CPSC CLASSIFICATION: IRRITANT
WHMIS HAZARD CLASS:
D2A VERY TOXIC MATERIALS
D2B TOXIC MATERIALS
WHMIS TRADE SECRET:
None
EXPORT:
SCHDLE B/HTSUS: 3214.10 Mastic Based on Rubber
ECCN: EAR99
HAZARD RATING SYSTEMS
HMIS FLAMMABILITY 0 , REACTIVITY 0 , HEALTH 2
NFPA HEALTH = 2, FLAMMABILITY = 0 , REACTIVITY = 0
CALIFORNIA PROPOSITION 65:
NONE

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16. OTHER INFORMATION

This product or its components are on the European inventory of existing commercial chemicals (EINECS).....
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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.
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C	= ceiling limit	NEGL	= negligible
EST	= estimated	NF	= none found
NA	= not applicable	UNKN	= unknown
NE	= none established	REC	= recommended
ND	= none determined	V	= recomm. 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
STEL	= short term exposure limit	NT	= not tested

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