GE Silicones

FORMAT: USA MATERIAL SAFETY DATA SHEET

PRODUCT: IS806 SILICONE INDUSTRIAL SEALANT

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

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

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

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REVISED: 04/18/03
PREPARER: B. JAVOREK
CHEMICAL FAMILY/USE: SILICONE RUBBER
FORMULA: MIXTURE

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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						
OCTAMETHYLCYCLOTETRASILOXANE						
556-67-2	1-5	5 PPM	NE	GE REC NE		GUIDE
TREATED FUMED SILICA						
68611-44-9	5-10	10	NE	15	NE	MG/M3
METHYLTRIACETOXYSILANE						
4253-34-3	1-5	10(R)	NE	10(R)	NE	PPM
2. NON-HAZARDOUS						

DIMETHYL POLYSILOXANE SILANOL/ST						
70131-67-8	60-80	NA	NE	NA	NE	NA
POLYDIMETHYLSILOXANE						
63148-62-9	1-5	NE	NE	NE	NE	
SILANOL/STPD SILOXANE W/ME SILSQXNS						
68554-67-6	5-10	NF	NE	NF	NE	NA

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

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING!

Irritating to skin, eyes, and respiratory tract.

May be harmful if swallowed.

Adverse liver and reproductive effects reported in animals.

Vinegar odor

Red solid

POTENTIAL HEALTH EFFECTS:

INGESTION:

May cause stomach discomfort.

May be harmful if swallowed.

Not an expected route of exposure.

SKIN CONTACT:

Uncured product contact will irritate lips, gums and tongue.

Uncured product contact may irritate the skin.

INHALATION:

Causes mild respiratory irritation.

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:

Acetic acid released during curing.

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:
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.
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.

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

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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.
Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the finger-tips, 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.
Store away from heat, sources of ignition, and incompatibles.
Keep away from children.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Showers and eyewash stations. See "Ventilation" below.
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 29 CFR 1910.134).
PROTECTIVE GLOVES:
Cloth gloves.
EYE AND FACE PROTECTION:
Safety glasses.
OTHER PROTECTIVE EQUIPMENT:
Wear eye protection and protective clothing.

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)	:	NA		
VAPOR DENSITY (AIR=1)	:	NA		
FREEZING POINT	:	NA	(C) NA	(F)
MELTING POINT	:	NA	(C) NA	(F)
PHYSICAL STATE	:	SOLID		
ODOR	:	ACETIC ACID		
COLOR	:	RED		
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)	:	NA		
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

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OCTAMETHYLCYCLOTETRASILOXANE

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:

TREATED FUMED SILICA

ACUTE ORAL LD50 (MG/KG): >10,000MG/KG (RAT)

ACUTE DERMAL LD50 (MG/KG): NA

ACUTE INHALATION LC50 (MG/L): NA

OTHER:

None.

AMES TEST:

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:

DIMETHYL POLYSILOXANE SILANOL/ST
ACUTE ORAL LD50 (MG/KG): RAT >40,000
ACUTE DERMAL LD50 (MG/KG): UNKNOWN
ACUTE INHALATION LC50 (MG/L): RAT >535 MG/L (4HR)
OTHER:
Non-irritating to skin (rbt).
AMES TEST:

POLYDIMETHYLSILOXANE
ACUTE ORAL LD50 (MG/KG):
ACUTE DERMAL LD50 (MG/KG):
ACUTE INHALATION LC50 (MG/L):
OTHER:
AMES TEST:

SILANOL/STPD SILOXANE W/ME SILSQXNS
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.

1 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.

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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: NA

NONE

WHMIS HAZARD CLASS:

D2A VERY TOXIC MATERIALS

D2B TOXIC MATERIALS

WHMIS TRADE SECRET:

None

EXPORT:

SCHDLE B/HTSUS: 3214.10 Mastic Based on Rubber

3206.49 Silicone Color Concentrate

ECCN: EAR99

EAR99

HAZARD RATING SYSTEMS

HMIS FLAMMABILITY 0 , REACTIVITY 0 , HEALTH 1

NFPA HEALTH = 1, FLAMMABILIITY = 0 , REACTIVITY = 0

CALIFORNIA PROPOSITION 65:

NONE

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16. OTHER INFORMATION

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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All chemical substances in this material are included on or exempted from listing on the TSCA inventory.

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