Silgrip

PRODUCT: PSA529

SILICONE RESIN IN TOLUENE

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: 04/01/01
PREPARER: CE HANNIGAN
CHEMICAL FAMILY/USE: SILICONE ADHESIVE
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						
BENZENE						
71-43-2	<.045	0.5	2.5	1	5	
TOLUENE						
108-88-3	30-60	50 (SKN)	NE	100	150	
OCTAMETHYLCYCLOTETRASILOXANE						
556-67-2	1-5	5 PPM	NE	GE REC	NE	GUIDE
2. NON-HAZARDOUS						
SILOXANES & SILICONES, DIMETHYL-HYDROXY-TERMINATED, RXN PRODUCTS-W/ CHLOROTRIMETHYLSILANE, HYDRO-CHLORIC ACID, ISOPROPANOL AND-SODIUM SILICATE						
68440-70-0	30-60	NE	NA	NE	NA	

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

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

*** CONTINUED ON NEXT PAGE ***

This section not in use
POTENTIAL HEALTH EFFECTS:
INGESTION:
Harmful if swallowed.
Causes vomiting, nausea, and diarrhea.
Irritation of the mouth, throat, and stomach.
Aspiration can be a hazard if this material is swallowed.
SKIN CONTACT:
Causes drying of the skin.
May be absorbed through the skin and contribute to the symptoms listed under "Ingestion".
May cause moderate skin irritation.
INHALATION:
Excessive inhalation causes headache, dizziness, nausea and incoordination.
Causes irritation of the mouth, nose, and throat.
Harmful if inhaled.
Can cause unconsciousness if inhaled.
Massive inhalation immediately dangerous to life and health.
EYE CONTACT:
May cause severe eye irritation.
Causes redness and tearing.
Causes blurred vision.
MEDICAL CONDITIONS AGGRAVATED:
Respiratory
Liver, kidney
Dermal ailments.
Central nervous system disorders.
SUBCHRONIC (TARGET ORGAN) EFFECTS:
Dermatitis.
Respiratory ailments.
Central nervous system damage.
Liver and kidney damage.
Reproductive disorders.
Possible effect on spleen.
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:
Oral.
Dermal - skin.
Eyes.
Inhalation.
OTHER:
Octamethylcyclotetrasiloxane
Ingestion: Rodents given large doses via oral gavage of

*** CONTINUED ON NEXT PAGE ***

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 offspring delivery (dystocia). These results were not observed at the 70 and 300 ppm dosing levels.

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.

*** CONTINUED ON NEXT PAGE ***

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.

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:
Remove contaminated clothing and launder before reuse.
Wash with soap 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:	1.6	(C)	35	(F)
METHOD :	TCC.			
IGNITION TEMP :	536	(C)	997	(F)
FLAMMABLE LIMITS IN AIR - LOWER (%):	1.2			
FLAMMABLE LIMITS IN AIR - UPPER (%):	7.0			
SENSITIVITY TO MECHANICAL IMPACT (Y/N):	NO			

SENSITIVITY TO STATIC DISCHARGE:
Sensitivity to static discharge is expected; material has a flash point below 200 F.

EXTINGUISHING MEDIA:
All standard firefighting media

SPECIAL FIREFIGHTING PROCEDURES:
Flammable.
Wear respiratory protection if in a confined area.

*** CONTINUED ON NEXT PAGE ***

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.
Wear proper protective equipment as specified in the protective equipment section.
Remove sources of ignition.
Warn other workers of spill.
Increase area ventilation.
Person not trained should evacuate area.

7 HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Use ground strap.
Recommended storage in original container below 30'C (85'F).
Keep container closed when not in use.
Avoid breathing vapors, if exposed to high vapor concentration, leave area at once.
Avoid contact with skin and eyes.
Use only in a well ventilated area.
Warning. Flammable.
Do not inhale vapors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Exhaust ventilation
Showers.
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:
Rubber gloves.
EYE AND FACE PROTECTION:
Safety glasses.
Monogoggles.
OTHER PROTECTIVE EQUIPMENT:
Wear eye protection and protective clothing.
VENTILATION:
Use only in well ventilated area.

*** CONTINUED ON NEXT PAGE ***

Mechanical ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT INFORMATION:

BOILING POINT	:	111	(C) 232	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	22		
VAPOR DENSITY (AIR=1)	:	3.2		
FREEZING POINT	:	NA	(C) NA	(F)
MELTING POINT	:	NA	(C) NA	(F)
PHYSICAL STATE	:	LIQUID		
ODOR	:	AROMATIC		
COLOR	:	CLEAR		
ODOR THRESHOLD (PPM)	:	2.14		
% VOLATILE BY VOLUME	:	45		
EVAP. RATE(BUTYL ACETATE=1)	:	1.9		
SPECIFIC GRAVITY (WATER=1)	:	.99		
DENSITY (KG/M3)	:	982.6		
ACID/ALKALINITY (MEQ/G)	:	<15 PPM		
PH	:	UNKNOWN		
VOC EXCL.H2O & EXEMPTS(G/L)	:	435		
SOLUBILITY IN WATER (20 C)	:	NEGLIGIBLE		

SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT): SOLUBLE, TOLUENE

10. STABILITY AND REACTIVITY

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:
Carbon monoxide.
Carbon dioxide.
Silicon dioxide.
Formaldehyde.
INCOMPATIBILITY (MATERIALS TO AVOID):
Contact with oxidizing agents.
CONDITIONS TO AVOID:
Keep away from heat, sparks and flame.
Avoid any source of ignition.

11. TOXICOLOGICAL INFORMATION

*** CONTINUED ON NEXT PAGE ***

BENZENE
ACUTE ORAL LD50 (MG/KG): 3,800 (RAT)
ACUTE DERMAL LD50 (MG/KG): NONE FOUND
ACUTE INHALATION LC50 (MG/L): 10,000 PPM/7HR(RAT)
OTHER:
Tested for acute oral LD50 and LC50.
AMES TEST: UNKNOWN

TOLUENE
ACUTE ORAL LD50 (MG/KG): 5000 (RAT)
ACUTE DERMAL LD50 (MG/KG): 14,000 (RBT)
ACUTE INHALATION LC50 (MG/L): 5320 PPM /8HR(MUS)
OTHER:
Tested for acute oral, dermal and inhalation.
AMES TEST: UNKNOWN

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:

SILOXANES & SILICONES, DIMETHYL-
ACUTE ORAL LD50 (MG/KG): UNKNOWN
ACUTE DERMAL LD50 (MG/KG): UNKNOWN
ACUTE INHALATION LC50 (MG/L): UNKNOWN
OTHER:
None.

AMES TEST: UNKNOWN

---

12. ECOLOGICAL INFORMATION

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

---

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
Disposal should be made in accordance with federal, state and local regulations.
Incineration recommended in approved incinerator according to federal, state, and local regulations.

*** CONTINUED ON NEXT PAGE ***

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: RESIN SOLUTION
DOT HAZARD CLASS: 3
DOT LABEL(S): FLAMMABLE LIQUID
UN/NA NUMBER: UN1866
PLACARDS: FLAMMABLE LIQUID
IATA:
RESIN SOLUTION, 3, UN1866, II, RQ=1000 lb/454 kg (Toluene)

IMO IMDG-code: 3.2
IMDG PG. 3278
EMS No: EmS. No.3-05, MFAG Table No.310
EUROPEAN CLASS:
RID (OCTI): 3
ADR (ECE) : 3,2301,1A FLAMMABLE
RAR (IATA): 3

15. REGULATORY INFORMATION

SARA SECTION 302:
None Found
SARA (311,312) HAZARD CLASS:
ACUTE HEALTH HAZARD
CHRONIC HEALTH HAZARD
FIRE HAZARD
SARA (313) CHEMICALS:
THIS PRODUCT CONTAINS TOXIC CHEMICAL(S) LISTED BELOW WHICH IS(ARE) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

TOLUENE
108-88-3
CPSC CLASSIFICATION: FLAMMABLE LIQUID
WHMIS HAZARD CLASS:
B2 FLAMMABLE LIQUIDS
D2A VERY TOXIC MATERIALS
D2B TOXIC MATERIALS
WHMIS TRADE SECRET:
None
EXPORT:
SCHDLE B/HTSUS: 3910.00 Silicones in Primary Form
ECCN: EAR99
HAZARD RATING SYSTEMS

*** CONTINUED ON NEXT PAGE ***

HMIS FLAMMABILITY 3 , REACTIVITY 0 , HEALTH 2
NFPA FLAMMABILITY 3 , REACTIVITY 0 , HEALTH 2

CALIFORNIA PROPOSITION 65:
THIS PRODUCT CONTAINS CALIFORNIA PROPOSITION 65 CHEMICALS WHICH ARE LISTED BELOW:

BENZENE (71-43-2)
TOLUENE (108-88-3)

---

16. OTHER INFORMATION

This product or its components are on the European inventory of existing commercial chemicals (EINECS).....
.....
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.
.....
This product or its components are on the Australian inventory (ACOIN).....
.....

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

.....
California Proposition 65...
Warning! This product contains a chemical known to the State of California to cause cancer.
.....

California Proposition 65...
Warning! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
.....

*** CONTINUED ON NEXT PAGE ***

Additional technical guidance for NYS bulk storage

Some NYS bulk storage requirements are covered in previous sections.

- This product contains flammable/combustible solvents.

- Materials of construction/compatibility
Material is commonly stored in closed stainless steel or glass lined steel piping and storage tanks (at ambient temperature). Any other materials such as reinforce fiber-glass, plastic and etc. must be tested for compatibility before use. Consult supplier for materials for gaskets, packing, etc.

- Condition for safe storage
Bulk storage design factors to consider are venting, diking, separation distances between tanks and other structures. Storage requirements should be determined through consultation with qualified design and fire protection engineers and fire insurance carriers. Technical guidance may be found in pamphlet NFPA 30 or factory mutual handbook of industrial loss prevention. Recommended tank design: For pressure vessels, see American Society of Mechanical Engineers (ASME) code, section VIII, 50 PSIG minimum pressure and full vacuum. For atmospheric tanks, see API 2000 for design requirements. Relief Valves: Flammable and Combustible Liquids code, NFPA Nos. 30 and 29 CFR 1910.106, also consult API 520, 521. For piping design, consult ANSI B.31.3.

Storage equipment
Corrosion protection, leak detection, spill and overfill protection requirements, installation and maintenance information may be found in EPA final rule: 40 CFR part 280 underground storage tanks. New York State regulates storage requirements of this material in 6NYCRR parts 595-599.

- Inspection and maintenance

NYS regulates some inspection and maintenance requirements under 6NYCRR part 598.

API publication, guide for inspection of refinery equipment, is a source for inspection and maintenance information. (American Petroleum Institute, 1220 L. Street, Northwest, Washington, D.C. 20005)

- Safety precautions, warnings and procedures for handling

*** CONTINUED ON NEXT PAGE ***

and unloading bulk deliveries

Only qualified, fully trained and experienced persons should sample, connect, load, unload, or disconect a tank car, portable tank or tank truck.

When loading or unloading material in bulk, all DOT (Department of Transportation) regulations found in 49 CFR 172-178 must be followed when applicable. This will include grounding, braking, attendance, etc.

The contents of the material to be unloaded should be verified before any transfer is made.

Prior to unloading into a storage tank, a qualified person must check the storage tank level to be sure that the amount of material to be received will not overflow the storage tank. The proper unloading connection should be vented to a vapor removal, recovery or conservation system.

- Spill and emergency response

Release reporting and corrective action are listed in 40 CFR part 280 underground storage tanks and 6NYCRR part 595.

DATE PRINTED: 05/08/01

*** END OF MSDS ***