GE Silicones

FORMAT: USA
PRODUCT: SS4044

MATERIAL SAFETY DATA SHEET
SILICONE PRIMER

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: 02/09/00
PREPARER: CE HANNIGAN
CHEMICAL FAMILY/USE: SILICONE SOLUTION
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
A. HAZARDOUS						
BENZENE						
71-43-2	<.020	0.5	2.5	1	5	PPM
TOLUENE						
108-88-3	10-30	50(SKN)	NE	100	150	PPM
N-BUTYL ALCOHOL						
71-36-3	1-5	50	NE	50(C)	NE	PPM
ACETONE						
67-64-1	10-30	750	1000	750	1000	PPM

ISOPROPYL ALCOHOL						
67-63-0	10-30	400	500	400	500	PPM
ETHYL SILICATE						
78-10-4	1-5	10		100		PPM
B. NON-HAZARDOUS						
SILANOL/STPD SILOXANE W/ME SILSQXNS						
68554-67-6	10-30	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:

Slight Yellow Liquid
Aromatic solvent odor
Danger! Extremely Flammable
Harmful if inhaled.
Harmful if swallowed.
Harmful if absorbed through the skin.
Avoid breathing vapors.
Avoid contact with skin and eyes.
Causes moderate skin irritation.
May cause severe eye irritation.
Excessive inhalation causes headache, dizziness, nausea, and incoordination.
Refer to other MSDS sections for detailed information.

POTENTIAL HEALTH EFFECTS:

INGESTION:

Harmful if swallowed.
Causes vomiting,nausea,and diarrhea
Irritation of the mouth, throat, and stomach.

SKIN CONTACT:

Causes moderate skin irritation.
Causes drying of the skin.
Harmful if absorbed thru the skin.

INHALATION:

Excessive inhalation causes headache, dizziness, nausea and incoordination.
Causes moderate respiratory irritation.
Causes irritation of the mouth,nose,and throat.
Harmful if inhaled.
Can cause unconsciousness if inhaled.

EYE CONTACT:

Causes severe eye irritation.
High vapor concentration will cause irritation.

MEDICAL CONDITIONS AGGRAVATED:

Respiratory
Pulmonary disorders.
Liver, kidney
Dermal ailments.

SUBCHRONIC (TARGET ORGAN) EFFECTS:
Dermatitis.
Respiratory ailments.
Central nervous system damage.
Liver and kidney damage.
Corneal damage.
Pulmonary edema.

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.
Absorption through skin.

OTHER:
This product contains a component that showed unexpected acute toxicity to pregnant rabbits in a gavage study conducted by the chemical manufacturers association. There were no unexpected toxic effects in pregnant rats exposed in the same study. No developmental effects were noted in either study. Effect levels in rabbits were several times the maximum exposure which would occur at the TLV for this component.

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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:
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, preferably mouth-to mouth. If breathing is difficult give oxygen. Get medical attention.

EYES:
In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
NOTE TO PHYSICIAN:
None known.

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5. FIRE FIGHTING MEASURES

FLASH POINT:		-12	(C) 10	(F)
METHOD	:	PMCC		
IGNITION TEMP	:	>538	(C) >1000	(F)
FLAMMABLE LIMITS IN AIR - LOWER (%):		2.1		
FLAMMABLE LIMITS IN AIR - UPPER (%):		12		
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.
1 EXTINGUISHING MEDIA:
Carbon dioxide
Dry chemical
Foam
Water mist
SPECIAL FIREFIGHTING PROCEDURES:
Extremely flammable.
Wear 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.
Wear proper protective equipment as specified in the protective equipment section.
Remove sources of ignition.
Warn other workers of spill.
Increase area ventilation.

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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.
Do not inhale vapors.
Danger! Extremely flammable.
Emptied containers may retain hazardous properties. Do not cut, puncture or weld on or near the container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Exhaust ventilation
Showers.
Eyewash stations.
Use in a well ventilated area.
RESPIRATORY PROTECTION:
Use approved NIOSH respiratory protection if TLV exceeded.....
Or over exposure is likely.
PROTECTIVE GLOVES:
Rubber gloves.
EYE AND FACE PROTECTION:
Safety glasses.
Monogoggles.
Face shield.
OTHER PROTECTIVE EQUIPMENT:
Rubber apron.
Wear eye protection and protective clothing.
VENTILATION:
Use only in well ventilated area.
Mechanical ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

BENZENE

BOILING POINT	:	80.1	(C)	176	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	75			
VAPOR DENSITY (AIR=1)	:	2.8			

TOLUENE

BOILING POINT	:	110	(C)	231	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	22			
VAPOR DENSITY (AIR=1)	:	3.2			

N-BUTYL ALCOHOL

BOILING POINT	:	117.7	(C)	243.9	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	4.4			
VAPOR DENSITY (AIR=1)	:	2.55			

ACETONE

BOILING POINT	:	56.1	(C)	133	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	186			
VAPOR DENSITY (AIR=1)	:	2.0			

ISOPROPYL ALCOHOL

BOILING POINT	:	82	(C)	180	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	30			
VAPOR DENSITY (AIR=1)	:	2.1			

ETHYL SILICATE

BOILING POINT	:	NF			
VAPOR PRESSURE(20 C)(MM HG)	:	NF			
VAPOR DENSITY (AIR=1)	:	NF			

SILANOL/STPD SILOXANE W/ME SILSQXNS

BOILING POINT	:	>135	(C)	>275	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	NEGL.			
VAPOR DENSITY (AIR=1)	:	NEGL.			

PRODUCT INFORMATION:

BOILING POINT	:	NA	(C)	NA	(F)
VAPOR PRESSURE(20 C)(MM HG)	:	NA			
VAPOR DENSITY (AIR=1)	:	NA			
FREEZING POINT	:	<-34	(C)	<-30	(F)
MELTING POINT	:	NA	(C)	NA	(F)
PHYSICAL STATE	:	LIQUID			
ODOR	:	PUNGENT/SOLVENT			
COLOR	:	LIGHT YELLOW			
ODOR THRESHOLD (PPM)	:	100			
% VOLATILE BY VOLUME	:	83			

EVAP. RATE(BUTYL ACETATE=1): >1
SPECIFIC GRAVITY (WATER=1) : 0.8
DENSITY (KG/M3) : 855
ACID/ALKALINITY (MEQ/G) : ~7
PH : NA
VOC EXCL.H2O & EXEMPTS(G/L): 697
SOLUBILITY IN WATER (20 C) : SLOWLY HYDROLYZ
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT): SOLUBLE, AROMATIC SOLVENT

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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.
Oxides of nitrogen.
INCOMPATIBILITY (MATERIALS TO AVOID):
Contact with oxidizing agents.
CONDITIONS TO AVOID:
Keep away from heat,sparks and flame.
Avoid any source of ignition.

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11. TOXICOLOGICAL INFORMATION

BENZENE
ACUTE ORAL LD50 (MG/KG): 3,800 (RAT)
1 ACUTE DERMAL LD50 (MG/KG): E 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

N-BUTYL ALCOHOL
ACUTE ORAL LD50 (MG/KG): 790 (RAT)
ACUTE DERMAL LD50 (MG/KG): 4200 (RBT)
ACUTE INHALATION LC50 (MG/L): 8000 PPM/4HR (RAT)
OTHER:
   Tested for acute oral, dermal and inhalation.
AMES TEST:

ACETONE
ACUTE ORAL LD50 (MG/KG): 5,800 (RAT)
ACUTE DERMAL LD50 (MG/KG): 20,000 (RBT)
ACUTE INHALATION LC50 (MG/L): NA
OTHER:
   None.

AMES TEST: UNKNOWN

ISOPROPYL ALCOHOL
ACUTE ORAL LD50 (MG/KG): 5840 (RAT)
ACUTE DERMAL LD50 (MG/KG): 13,000 (RBT)
ACUTE INHALATION LC50 (MG/L): 12,000 PPM/8HR(RAT)
OTHER:
   Tested for acute oral, dermal and inhalation.
AMES TEST: UNKNOWN

ETHYL SILICATE
ACUTE ORAL LD50 (MG/KG): NA
ACUTE DERMAL LD50 (MG/KG): NA
ACUTE INHALATION LC50 (MG/L): NA
OTHER:
   None.

AMES TEST:

SILANOL/STPD SILOXANE W/ME SILSQXNS
ACUTE ORAL LD50 (MG/KG): >40,000 RAT,ESTM.
1 ACUTE DERMAL LD50 (MG/KG): E FOUND
ACUTE INHALATION LC50 (MG/L): >535 MG/L ESTM.
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.

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14. TRANSPORT INFORMATION

DOT SHIPPING NAME: FLAMMABLE LIQUID N.O.S. (Acetone & Toluene)
DOT HAZARD CLASS: 3
DOT LABEL(S): FLAMMABLE LIQUID
UN/NA NUMBER: UN1993
PLACARDS: FLAMMABLE LIQUID
IATA:
FLAMMABLE LIQUID N.O.S. (Acetone & Toluene), 3, UN1993, II, RQ= 5000 LB (Acetone), RQ=1000 LB (Toluene).
IMO IMDG-code: 3.2
IMDG PG. 3230
EMS No: EmS. No.3-07,Subsection 4.2 of MFAG
EUROPEAN CLASS:
RID (OCTI): 3
ADR (ECE) : 3,2301,1A
RAR (IATA): 3

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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.

N-BUTANOL
71-36-3
TOLUENE
108-88-3

CPSC CLASSIFICATION: NA
WHMIS HAZARD CLASS:
B2 FLAMMABLE LIQUIDS
D2B TOXIC MATERIALS
WHMIS TRADE SECRET:
None
EXPORT:
SCHDLE B/HTSUS: 3208.90 Polymer Solution
ECCN: EAR99
HAZARD RATING SYSTEMS
HMIS FLAMMABILITY 3 , REACTIVITY 1 , HEALTH 2
NFPA FLAMMABILITY 3 , REACTIVITY 1 , HEALTH 2
CALIFORNIA PROPOSITION 65:

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

TOLUENE (108-88-3)

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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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This product or its components are on the Australian inventory (ACOIN).....
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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

.....
Califonia Proposition 65...
Warning! This product contains a chemical known to the State of California to cause cancer.
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Califonia Proposition 65...
Warning! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
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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 be-fore 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 over-fill 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 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.

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