SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: 600 SILICONE SEALANT
Military Specification: MIL-A-46106A Type 1

Supplier: American Sealants, Inc.
P.O. Box 80307
Fort Wayne, IN 46818

Chemical Family/Use: Silicone Rubber
Formula: Mixture

Phone: (260) 489-0728
Fax: (260) 489-0519
Emergency: (800) 535-5053
Revision date: 01/16/04

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Product Composition/CAS, Reg. No.</th>
<th>Approx. Wt. %</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>A. Hazardous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyltriacetoxysilane 4253-34-3</td>
<td>1-5</td>
<td>10(R)</td>
<td>NE</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane 556-67-2</td>
<td>1-5</td>
<td>5 ppm</td>
<td>NE</td>
</tr>
<tr>
<td>B. Non-hazardous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silanol/STPD Siloxane W/ME SLSQXNS 68554-67-6</td>
<td>5-10</td>
<td>NF</td>
<td>NE</td>
</tr>
<tr>
<td>Tetramer Treated Fumed Silica 68583-49-3</td>
<td>10-30</td>
<td>10</td>
<td>NE</td>
</tr>
<tr>
<td>Dimethyl Polysiloxane Silanol/ST 70131-67-8</td>
<td>60-80</td>
<td>NA</td>
<td>NE</td>
</tr>
<tr>
<td>Red Iron Oxide 1309-37-1</td>
<td>1-5</td>
<td>5</td>
<td>NE</td>
</tr>
</tbody>
</table>

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

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview:
This section not in use

Potential Health Effects:
Ingestion: Irritation of the mouth, throat, and stomach
Skin Contact: Uncured product contact will irritate lips, gums and tongue
              Uncured product contact may irritate the skin
Inhalation: Causes mild respiratory irritation
Eye Contact: Uncured product contact irritation.
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:** Eyes, Inhalation

**Other:** Acetic Acid released during curing.

Octamethylcyclotetrasiloxane

**Ingestion:** Rodents give large dose via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weight relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appeared normal) as well as hypertrophy (increased cell size).

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 of 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.

The relevance of these data to humans is unclear. Further studies are ongoing.

This product contains Methylpolysiloxanes which can generate Formaldehyde at approximately 300°F (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.

---

**SECTION 4. FIRST AID MEASURES**

**Ingestion:** None Known

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

**Skin:** To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water.

**Inhalation:** Remove to fresh air.

**Note to Physician:** None known

---

**SECTION 5. FIRE FIGHTING MEASURES**

- **Flash Point (Method Used):** NA
- **Method:** NA
- **Ignition Temp:** UNK
- **Flammability Limits in air:**
  - Lower (%): NA
  - Upper (%): NA
- **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

SECTION 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 hazards. Wear proper protective equipment as specified in the protective equipment section.

SECTION 7. HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storing:
Avoid contact with skin and eyes.
Remove contact lenses before using sealant. Do not handle lenses until sealant has been cleaned from the fingertips 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Exhaust ventilation
Eyewash stations
Use in a well ventilated area
Localized ventilation should be used to control dust levels.
Respiratory Protection: Use in a well ventilated area
Use approved NIOSH respiratory protection if TLV exceeded or over exposure is likely.
Protective Gloves: Cloth gloves
Eyes and face Protection: Use safety glasses
Ventilation: Use only in well ventilated area
Mechanical ventilation
Other Protective Equipment: None known

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Product Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>NA (C) NA (F)</td>
</tr>
<tr>
<td>Vapor Pressure (20°C) (MM HG)</td>
<td>NEG (C) UNK (F)</td>
</tr>
<tr>
<td>Vapor Density (AIR=1)</td>
<td>NEG (C) UNK (F)</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>UNK (C) UNK (F)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>UNK (C) UNK (F)</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Acetic Acid</td>
</tr>
<tr>
<td>Color</td>
<td>Red</td>
</tr>
<tr>
<td>Odor Threshold (PPM)</td>
<td>1.0</td>
</tr>
<tr>
<td>% Volatile by Volume</td>
<td>&lt;3.9</td>
</tr>
<tr>
<td>Evap. Rate (Butyl Acetate=1)</td>
<td>Neg</td>
</tr>
<tr>
<td>Specific Gravity (Water=1)</td>
<td>1.06</td>
</tr>
<tr>
<td>Density (KG/M3)</td>
<td>1060</td>
</tr>
<tr>
<td>Acid/Alkalinity (MEQ/G)</td>
<td>UNK</td>
</tr>
<tr>
<td>PH</td>
<td>NA</td>
</tr>
<tr>
<td>VOC (EPA METH.24) (G/L)</td>
<td>1060</td>
</tr>
<tr>
<td>Solubility in Water (20°C)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Solubility in Organic Solvent (State Solvent): Toluene</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 10. SPECIAL PRECAUTIONS

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

SECTION 11. TOXICOLOGICAL INFORMATION

Methyltriacetoxyisilane:
  Acute Oral LD50 (MG/KG): 2,050 (RAT)
  Acute Dermal LD50 (MG/KG): None Found
  Acute Inhalation LC50 (MG/L): None Found
  Other: None Found

AMES Test:
  Octamethylcyclotetrasiloxane
    Acute Oral LD50 (MG/KG): >64,000 (RAT)
    Acute Dermal LD50 (MG/KG): >16.00 (RBT)
    Acute Inhalation LC50 (MG/L): >41 MG/L 6HR (RAT)
    Other: Non-irritating to the skin (human)

AMES Test:
  Silanol/STPD Siloxane W/ME SILSQQXNS
    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 Found

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: NA

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>525 MG/L (4HR)
    Other: None Found

AMES Test:
  Red Iron Oxide
    Acute Oral LD50 (MG/KG): None found
    Acute Dermal LD50 (MG/KG): None Found
    Acute Inhalation LC50 (MG/L): None Found
    Other: None Found

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data at this time
SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 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: NA
European Class:
  RID (OCTI): NA
  ADR (ECE): NA
  RAR (DATA): NA

SECTION 15. REGULATORY INFORMATION

SARA Section 302: None Found
SARA (311, 312) Hazardous 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:
  SCHEDULE B HTSUS: 3910.00 Silicones in Primary Form
  ECCN: EAR99
Hazard Rating System
  HMIS: Flammability 0, Reactivity 0, Health 2
  NFPA: Flammability 0, Reactivity 0, Health 2
California Proposition 65: None

SECTION 16. OTHER INFORMATION

This product or its components are on the European inventory of existing commercial chemicals (EINCES)............. These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific content of the intended use.

These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby 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.