

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: **Gemseal Products**

Chemical Name: Mixture of emulsion silicone

Grade(s): Gemseal (All Grades)

Manufacturer/Supplier: **Refractory Specialties, Inc. P.O. Box 189, OH U.S.A. 44672-0189**

Emergency: 1-330-938-2101 (Monday - Friday 8:00 a.m. - 5:00 p.m.)
1-330-821-4051 330-692-3149 or 330-692-0247 (After Hours)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>COMPONENTS</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
Octyl Triethoxy Silane	35435-21-3	1 - 5
Toluene	108-88-3	0-1
Ethanol	64-17-5	Varies

(See Section 8 "Exposure Controls / Personal Protection" for exposure guidelines)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This material is not hazardous under OSHA criteria

HAZARD RATINGS

HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) RATINGS:
Health: 1*, Flammability: 0, Reactivity: 0, Personal Protection Index: B

POTENTIAL HEALTH EFFECTS

TARGET ORGANS:

Skin, eyes, and lungs.

INHALATION:

No acute toxic effects are expected.

EYE CONTACT:

Slightly to moderately irritating.

SKIN CONTACT:

Slightly to moderately irritating.

INGESTION:

Not a normal route of exposure in an industrial setting.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known

CHRONIC EFFECTS

This material contains toluene (CAS-No. 108-88-3). May cause damage to kidneys, liver and bone marrow. May cause central nervous system effects. In animal test only in concentration with maternal toxicity fetal damage was observed. There is no clear correlation between toluene exposure and fetal damage in human.

4. FIRST AID MEASURES

FIRST AID PROCEDURES

INHALATION:

Not a likely route of expose. Remove exposed individual to fresh air.

EYE CONTACT:

If eyes become irritated, flush immediately with large amounts of lukewarm water for at least 15 minutes. Do not rub eyes. Get medical attention if irritation persists.

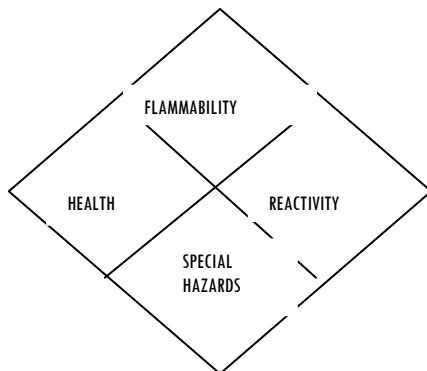
SKIN CONTACT:

If skin becomes exposed, wash area of contact thoroughly with soap and water. rinse exposed area for 15 minutes with clean water

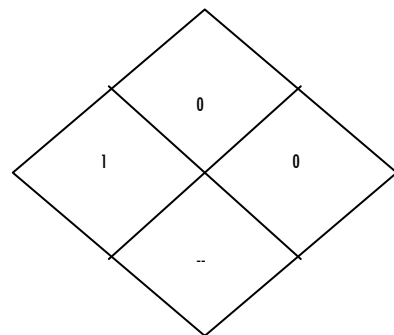
INGESTION:

For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Get medical attention if symptoms occur. Show label if possible.

5. FIRE FIGHTING MEASURES



4 -- EXTREME
 3 -- HIGH
 2 -- MODERATE
 1 -- LIGHT
 0 -- INSIGNIFICANT



NFPA Unusual Hazards: None

Flammable Properties:

Flashpoint: None.
 Method: N. A.

Flammable Limits:

Lower Flammable Limit: N. A.
 Upper Flammable Limit: N. A.

Autoignition Temperature: 806 F.

Hazardous Decomposition Products:

None.

Extinguishing Media:

Use extinguishing media suitable for type of surrounding fire.

Fire Fighting Instructions:

See "Extinguishing Media" above.

Unusual Fire and Explosion Hazard:

None.

6. ACCIDENTAL RELEASE MEASURES

Precautions:

If material is released indicate risk of slipping.

HAZWOPER PPE Level: D

Containment:

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

Methods for cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.

7. HANDLING AND STORAGE

HANDLING AND STORAGE

Avoid eye and skin contact. Do not take internally. Ensure all containers are labeled. Keep the container closed when not in use. Clean up spills immediately to reduce potential slip hazards.

STORAGE

Store in containers tightly closed. Protect product from freezing.

EMPTY CONTAINERS

Product packaging may contain residue. Do not reuse.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

<u>Components</u>	<u>OSHA (PEL)</u>	<u>ACGIH (TLV)</u>	<u>SUPPLIER</u>
Octyl Triethoxy Silane	None Established	None Established	None Established
Toluene	200 PPM (TWA)	50 PPM	None Established
Ethanol	1000 PPM (TWA)	1000 PPM (TWA)	None Established

ENGINEERING CONTROLS

General ventilation is recommended. Local exhaust ventilation may be necessary when dusts or mists are generated. For additional information, contact Refractory Specialties, Inc. at 1-330-938-2101.

PERSONAL PROTECTION EQUIPMENT**RESPIRATORY PROTECTION:**

Respiratory protection is not normally needed. If mists, vapors or aerosols are generated an approved respirator is recommended.

SKIN PROTECTION:

Wear gloves, head coverings and full body clothing as necessary to prevent skin irritation. Washable or disposable clothing may be used. If possible, do not take unwashed clothing home. Work clothes should be washed separately from other clothing and the washing machine rinsed thoroughly following use. Inform the launderer of the proper procedures. Store work clothes and street clothes separately to prevent contamination.

EYE PROTECTION:

Wear safety glasses or chemical goggles to prevent eye contact. Do not wear contact lenses unless chemical goggles are also worn. Do not touch eyes with contaminated body parts or materials. Have eye-washing facilities readily available where eye contact can occur.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Odor and Appearance: Cloudy-white liquid with slight odor.

Boiling Point: > 212 F.

Melting Point: N/A

Vapor Pressure: N. A.

Vapor Density (Air = 1): N. A.

Molecular Weight: N. A.

Chemical Family: Emulsion silicone

% Solubility in Water: N. A.

Specific Gravity: 1.05 to 1.40

pH: 7

% Volatile: N. A.

Molecular Formula: N. A.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Stable under conditions of normal use.

INCOMPATIBILITY:

N/A

CONDITIONS TO AVOID:

None.

HAZARDOUS DECOMPOSITION PRODUCTS:

Trace amounts of formaldehyde above 300 F.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology has not been done on this product. Toluene has been found to be a developmental reproductive toxin based on animal studies.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS :

Silicone is biologically non-degradable

BIOACCUMULATION POTENTIAL

This preparation or material is not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Dispose of material by incineration in special waste incinerators. Observe all local, state, and federal regulations.

14. TRANSPORT INFORMATION**U.S. DEPARTMENT OF TRANSPORTATION (DOT)****BILL OF LADING DESCRIPTION (49 CFR 172.202):** GEMSEAL (NON-REGULATED)**UNITED NATIONS (UN) NUMBER:** NOT APPLICABLE**NORTH AMERICA (NA) NUMBER:** NOT APPLICABLE**15. REGULATORY INFORMATION**

Key statutory and regulatory classifications or listings for the product, as manufactured, which may impact product storage, use, handling or disposal:

U.S. FEDERAL REGULATIONS**Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA)**

Constituents regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA 40 CFR 302):

NONE

Clean Air Act (CAA)

Substances regulated as hazardous air pollutants under Section 112 of the Clean Air Act Amendments of 1990:

NONE

Toxic Substances Control Act (TSCA)

All substances in this product are listed, as required, on the TSCA inventory.

Superfund Amendments and Reauthorization Act (SARA) Title III Information: SARA Hazard Category

Listed below are the hazard categories for the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370):

Immediate Hazard: -- Fire Hazard: -- Reactivity Hazard: -- Delayed Hazard: -- Pressure Hazard: --

SARA 313 Information

Toxic chemical(s) subject to the annual reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372)"

NONE

SARA 302/311/312 Information

Extremely hazardous substances subject to the notification and inventory reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 302 (40 CFR 355) and Section 311/312 (40 CFR 370) respectively:

NONE

HAPs (Hazardous Air Pollutants)

Toluene

STATE REGULATIONS**California:**

Substance(s) listed by the State of California on Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986:

Chemical Name
Toluene

CAS Number
108-88-3

INTERNATIONAL REGULATIONS

Canadian Workplace Hazardous Materials Information System (WHMIS):

Classified as D2A

Canadian Environmental Protection Act (CEPA)

All substances in this product are listed, as required, on the Domestic Substances List (DSL).
Chemical(s) which are listed on the Non-Domestic Substances List:

NONE

16. OTHER INFORMATION

Definitions:

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
EPA: Environmental Protection Agency
Fibers/cc: Fibers per cubic centimeter
HEPA: High Efficiency Particulate Air
HMIS: Hazardous Materials Information System
mg/m³: Milligrams per cubic meter of air
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
29 CFR 1910.134 & 1926.103: OSHA Respiratory Protection Standard
29 CFR 1910.1200 & 1926.59: OSHA Hazard Communication Standard
PEL: Permissible Exposure Limit
RCRA: Resource Conservation and Recovery Act
RCF: Refractory Ceramic Fiber
SARA: Superfund Amendments and Reauthorization Act
Title III: Emergency Planning and Community Right to Know Act
Section 302: Extremely Hazardous Substances
Section 304: Emergency Release
Section 311: MSDS/List of Chemicals and Hazardous Inventory
Section 312: Emergency and Hazardous Inventory
Section 313: Toxic Chemicals and Release Reporting
SVF: Synthetic Vitreous Fiber
TLV: Threshold Limit Value (ACGIH)
TSCA: Toxic Substances Control Act

DISCLAIMER

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.