



MATERIAL SAFETY DATA SHEET

Product: **Aeroseal**

Silanol/STPD Siloxane w/Silsesqxns

1. Chemical Product And Company Identification

Company Name:

ARI Industries, Inc.
381 ARi Court
Addison, IL 60101

Non-Emergency: (630) 953-9100
Fax: (630) 953-0590
Website: ariindustries.com

HMIS: FLAMMABILITY 3, REACTIVITY 0, HEALTH 0
NFPA: HEALTH = 0, FAMMABILITY = 3, REACTIVITY = 0

24-Hour Emergency Phone
GE Silicones: (518) 237-3330

Revised: 11/01/2011
Chemical Family/Use: **Silicone Fluid**
Formula: **Mixture**

2. Hazardous Ingredients

<u>Component</u>	<u>Cas No</u>	<u>% by Weight</u>	<u>Hazards</u>
Silanol/STPD Siloxane w/ME Silsqxns	68554-67-6	60 – 80%	<u>TLV</u> : NF, <u>PEL</u> : NF, <u>STEL</u> : NE
Octamethylcyclotetrasiloxane	556-67-2	30 – 60%	<u>TWA</u> : 5 PPM <u>TLV</u> : NE <u>STEL</u> : REC NE <u>UNITS</u> : GUIDE
<u>Non-Hazardous</u> : None Found			

3. Hazards Identification

EMERGENCY OVERVIEW: WARNING! Flammable liquid and vapor.
May be harmful if swallowed.
May irritate the skin.
May irritate the eyes.

May generate formaldehyde at temperatures greater than 150°C (300° F).
Adverse liver and reproductive effects reported in animals.
Mild odor.
Clear liquid.

POTENTIAL HEALTH EFFECTS

INGESTION: May be harmful if swallowed.

SKIN CONTACT: May cause mild skin irritation.

INHALATION: None known

EYE CONTACT: May cause mild eye irritation

MEDICAL CONDITIONS AGGRIVATED: 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: None known

OTHER:

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 offspring 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.

Decamethylcyclopentasiloxane

INGENSTION: Rodents given doses via oral gavage of decamethylpentasiloxane (100 mg/kg/day for females, 400 mg/kg/day for males, 14 days) developed increased liver weights relative to unexposed control animals.

INHALATION: In inhalation studies, laboratory rodents exposed to decamethylpentasiloxane (120 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 exposures typical of industrial usage (5-10 PPM) showed no toxic effects in rodents.

Attention: Not for injection into humans.

This products 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. Refer to an MSDS on formaldehyde.

4. First Aid Measures

INJECTION: 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: Wash with soap and water. Get medical attention if irritation or symptoms from Section 3 develop.

IMHALATION: 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: 57.2° C 135° (F)

METHOD: PMCC.

IGNITION TEMP: NF (C) NF (F)

FLAMMABLE LIMITS IN AIR – LOWER (%): NF

FLAMMABLE LIMITS IN AIR – UPPER (%): NF

SENSITIVITY TO MECHANICAL IMPACT (Y/N): NO

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

EXTINGUISHING MEDIA: All standard fire fighting media

SPECIAL FIREFIGHTING PROCEDURES: Flammable. Fire fighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

6. Accidental Release Measures

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wash walking surfaces with detergent and water to reduce slipping hazard.

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

Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials disposal.

7. Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Use grounds strap and appropriate precautions for dispensing flammable liquids.

Keep container closed when not in use.

Avoid breathing vapors.

Avoid contact with skin and eyes.

Store away from heat, sources of ignition and incompatibles.

Keep away from children.

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: Polyvinylchloride. Nbr nitrile.

EYE AND FACE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Wear eye protection and protective clothing.

VENTILATION: Ventilation and other forms of engineering controls are preferred for controlling exposure. Respiratory protection may be needed for non-routine or emergency situations.

9. Physical and Chemical Properties

PRODUCT INFORMATION:

BOILING POINT:	UNKNOWN
VAPORS PRESSURE (20° C) (MM HG):	1
VAPOR DENSITY (AIR=1) :	UNKNOWN
FREEZING POINT:	N/A
MELTING POINT:	N/A
PHYSICAL STATE:	LIQUID
ODOR:	ODORLESS
ODOR THRESHOLD (PPM):	UNKNOWN
% VOLATILE BY VOLUME:	<10
EVAP. RATE (BUTYL ACETATE=1):	<1
SPECIFIC GRAVITY (WATER=1):	.97
DENSITY (KG/M3):	958.6

ACID/ALKALINITY (MEQ/G): UNKNOWN
PH: N/A
VOC EXCL. H2O & EXEMPTS (G/L): NT
SOLUBILITY IN WATER (20°C): INSOLUBLE
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT): SOLUBLE IN 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): None known.
1⁺ CONDITIONS TO AVOID: Keep away from heat, sparks and flame. Avoid any source of ignition.

11. Toxicological Information

PRODUCT INFORMATION:
ACUTE ORAL LD50 (MG/KG): >40 (RAT) ESTM.
ACUTE DERMAL LD50 (MG/KG): NONE FOUND
ACUTE INHALATION LC50 (MG/L): >535 (RAT) MG/L ESTM.
OTHER: NONE

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.

14. Transport Information

DOT SHIPPING NAME: FLAMMABLE LIQUID N.O.S.
(Octamethylcyclotetrasiloxane)

DOT HAZARD CLASS: 3
DOT LABEL(S): FLAMMABLE LIQUID
UN/NA NUMBER: UN1993
PLACARDS: FLAMMABLE LIQUID
IATA: FLAMMABLE LIQUID N.O.S. (Octamethylcyclotetrasiloxane), 3, UN1993, III.
IMO IMDG-code: 3
EMS No: EmS. No.3-07
EUROPEAN CLASS:
1st RID (OCTI): 3
ADR (ECE): 3
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: None
CPSC CLASSIFICATION: N/A
WHMIS HAZARD CLASS: B3 COMBUSTIBLE LIQUID
D2A: Very Toxic Materials
WHMIS TRADE SECRET: None
EXPORT:
SCHDLE B/HTSUS: 3910.00 Silicones in Primary Form
ECCN: EAR99
HAZARD RATING SYSTEMS
HMIS FLAMMABILITY 3, REACTIVITY 0, HEALTH 0
NFPA HEALTH = 0, FLAMMABILITY = 3, REACTIVITY = 0
CALIFORNIA PROPOSITION 65: None

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). . . .

C = ceiling limit

NEGL = negligible

EST = estimated

NF = none found

N/A = not applicable

UNKN = unknown

NE = none established

REC = recommended

ND = none determined

V = recommended by vendor

By-product = reaction by-product, TSCA inventory

SKN = skin

status not required under

TS = trade secret

40 CFR part 720.30(h-2)

R = recommended

STEL = short term exposure
Limit

MST = MIST

NT = NOT TESTED