

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: Silanol terminated silicone fluid

Product Number: OH-4000

CAS No: 70131-67-8

Relevant identified uses of the substance or mixture and uses advised against

Industrial fluid, resin modifier

1.2 Details of the supplier of the safety data sheet

Manufactured/Supplied by Silsource Inc.

ADDRESS: 10625 Bryant Sideroad, Port Perry, Ontario, L9L 2C6

CHEMICAL EMERGENCY ONLY (PHONE): CANUTEC (613) 996-6666 [24 Hr.]

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification: Not Classified

Health Hazard: Reproductive toxicity Category 2

2.2 GHS Labelling

Label elements



Pictogram:

Signal word: Warning

Hazard statement(s): Suspected of damaging fertility or the unborn child.

Precautionary statement

Precautionary statement(s)

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards which do not result in classification : None Known

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: Silanol Fluid, Silanol Dual End Fluid, Dimethyl siloxane, Hydroxy-terminated

Component	CAS No.	Concentration %
Dimethylpolysiloxane	70131-67-8	> 98
Octamethylcyclotetrasiloxane	556-67-2	< 0.3

3.2 Mixtures

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled:	Move to fresh air. Call a physician if symptoms develop or persist.
In case of skin contact:	Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact:	Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
If swallowed:	Rinse mouth. Get medical attention immediately and show attending Doctor this Safety Data Sheet.
Most important symptoms and effects, both acute and delayed:	Direct contact with eyes may cause temporary irritation. May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility based on animal data.
Indication of immediate medical attention and special treatment needed:	Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Keep victim under observation.
General advice:	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂), Dry chemical powder, Foam, Water fog

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed. This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300°F(150°C) and above, in atmospheres which contain oxygen.

5.3 Advice for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk

5.4 Further information Use standard firefighting procedures and consider the hazards of other involved materials. No unusual fire or explosion hazards noted. The product is not flammable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. For personal protection, see Section 8 of the SDS.

6.2 Environmental precautions

Prevent further spillage or leakage if safe to do so. Prevent from entering drains or water sources.

6.3 Methods and materials for containment and cleaning up

Remove all sources of ignition.

Large Spill(s): Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spill(s): Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

Do not reuse spilled material.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Keep in original container.

7.3 Specific end uses

no data available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

US. Workplace Environmental Exposure Level (WEEL) Guides

Monomer	Type	Value
Octamethylcyclotetrasiloxane (CAS 556-67-2)	TWA	10 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye/face protection	Tightly fitting safety glasses according to EN 166, or wear safety glasses with side shields. Eye wash bottle with pure water and safety shower.
Hand protection	Wear protective gloves. Full contact: Glove material: Nitrile; Layer thickness: 15 mm; Breakthrough time: 480 min. Suitable gloves can be recommended by the glove supplier.
Body Protection	Use of an impervious apron is recommended
Respiratory protection	If ventilation is insufficient use suitable respirator with organic vapour cartridge.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: Observe any medical surveillance requirements. When using, do not eat, drink or smoke.

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Colorless transparent liquid

Odor:	Odorless.
Odor threshold:	No data available.
pH:	N/A
Melting point /freezing point(°C):	No data available.
Boiling point (°C):	No data available.
Flash point (°C):	> 212°F (>100°C) Pensky-Martens Closed cup
Flammability (solid, gas):	N/A
Flammability limit-upper[% (V/V)]:	No data available.
Flammability limit-lower [% (V/V)]:	No data available.
Vapor pressure (KPa):	Negligible (25°C)
Vapor density (air=1):	> 1 (25°C)
Evaporation rate:	No data available.
Relative density:	0.97 - 0.99 g/cm³
Relative density temperature:	77°F (25°C)
Solubility:	
Solubility (water):	Not soluble
Partition coefficient(n-octanol/water):	No data available.
Autoignition temperature(°C):	No data available.
Decomposition temperature(°C):	No data available.
Viscosity:	4000 cst
Viscosity Temperature:	25°C
Explosive properties:	Not explosive
Oxidizing properties:	Not oxidizing
Percent Volatile:	Not determined

9.2 Other safety information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2 Chemical stability	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions	Hazardous polymerization does not occur
10.4 Conditions to avoid	Contact with incompatible materials.
10.5 Incompatible materials	Strong oxidants. Strong alkalis.
10.6 Hazardous decomposition products	Silicon dioxide. Carbon dioxide. Exposure to air over extended period of time at 150°C or greater can cause the formation of formaldehyde which is a known carcinogen

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure:

Inhalation: Suspected of damaging fertility by inhalation. Prolonged inhalation may be harmful.

Ingestion: Under normal conditions of intended use, this material does not pose a risk to health.

Skin contact: Prolonged skin contact may cause temporary irritation.

Eye contact: Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics: Direct contact with eyes may cause temporary irritation. May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility based on animal data.

Information on toxicological effects: Not expected to be acutely toxic

Toxicological data

Monomer	Species	Test Results
Octamethylcyclotetrasiloxane (CAS 556-67-2)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2400 mg/kg
Inhalation		
LC50	Rat	> 36 mg/l, 4 Hours
Oral		
LD50	Rat	> 4800 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	Not expected to be a skin sensitizer.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
NTP Report on Carcinogens		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
Reproductive toxicity	Suspected of damaging fertility. A two year combined chronic/carcinogenicity assay was conducted on octamethylcyclotetrasiloxane (D4). Fischer-344 rats were exposed by whole body vapor inhalation 6 hours/day, 5 days/week for up to 103 weeks to 0, 10, 30, 150 or 700 ppm of D4. A statistically significant increase in incidence of uterine endometrial cell hyperplasia and uterine adenomas (benign tumors) were observed in female rats at 700 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing D4 would result in a significant risk to humans.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: No data available.

Mobility in soil: The product is insoluble in water.

Other adverse effects:

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal Methods

General information: The user's attention is drawn to the possible existence of local regulations before disposal.

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Waste from residues / unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

14 International Regulation

Road and Rail Transport (ADR/RID): Not regulated as dangerous goods.

Sea Transport (IMDG): Not regulated as dangerous goods.

Air Transport (IATA): Not regulated as dangerous goods.

Environmental hazards: Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not established

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
UN Recommendations on the Transport of Dangerous Goods - Model Regulations.
Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace, particularly those relating to the safe use, production, storage and transportation of dangerous chemicals.

US Federal Regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Octamethylcyclotetrasiloxane (CAS 556-67-2) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency release notification

Not Regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes
Classified hazard categories Reproductive toxicity
SARA 313 (TRI reporting)
Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Not regulated.
US. New Jersey Worker and Community Right-to-Know Act
Not listed.
US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.
US. Rhode Island RTK
Not regulated.
California Prop 65
California Safe Drinking Water and Toxic enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Octamethylcyclotetrasiloxane (CAS 556-67-2)

International Chemical Inventories

Country or Region	Inventory Name	On Inventory (yes/no)*
Australia	AICS	Yes
Canada	DSL	Yes
	NDSL	No
China	IESCS	Yes
Europe	EINECS	Yes
Europe	ELINCS	Yes
Japan	ENCS	No
Korea	ECL	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	PICCS	Yes
Taiwan	TCSI	Yes
United States & Puerto Rico	TSCA	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more of the components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

Further information HMIS Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

This data is 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 context of the intended use.

C = ceiling limit	NEGL = negligible	EST = estimated	NF = none found
N/A = not applicable	UNK = unknown	NE = none established	REC = recommended
ND = none determined	V = recommended by vendor		SKN = skin
TS = trade secret	R = recommended		MST = mist
NT = not tested	STEL = short term exposure limit		

This SDS was prepared sincerely on the basis of the information we could obtain, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

This SDS is compliant with the GHS requirements outlined at
http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/sds.html

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