

SAFETY DATA SHEET

PSF-5cSt Silicone Heat Transfer Fluid



Data Prepared: March 5th, 2019

SECTION 1: Identification

Product name : PSF-5cSt Silicone Heat Transfer Fluid

Product code : PSF-5cSt

Manufacturer or supplier details

Company name of supplier : Clearco Products Co Inc.

Address : 15 York Rd.
Willow Grove, PA 19090 U.S.A.

Telephone : 215-366-7860

**Emergency Telephone : CHEM TEL: 1-800-255-3924 (DOMESTIC)
+01-813-248-0585 (INTERNATIONAL)**

Recommended use of the chemical and restrictions on use

Recommended use : Process regulators, other polymerization or vulcanization
Processes
Intermediate
Cosmetics
Lubricants and lubricant additives
Anti-set off and adhesive agents

SECTION 2: Hazards identification

Hazard classification

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

No data available

SECTION 3: Composition/information on ingredients

Synonyms: Siloxane, dimethyl

This product is a substance

| Component | CASRN | Concentration |
|-----------------------------------|--------------|----------------------|
| Siloxanes and silicones, dimethyl | 63148-62-9 | >=90.0- <=100.0% |

SECTION 4: First aid measures**Description of first aid measures****General advice:**

If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Wash off with plenty of water.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measured (above) and indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)

Unsuitable extinguishing media : None known.

Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides Silicon oxides

Unusual Fire and Explosion Hazards: Exposure to combustion products may be a hazard to health

Advice for firefighters

Fire Fighting Procedures: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it safe to do so. Evacuate area.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Follow safe handling and personal protective equipment recommendations.

Environmental precautions:

Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up: Soak up with inert absorbent material. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. See sections 7, 8 11, 12 and 13.

SECTION 7: Handling and storage

Precautions for safe handling: Take care to prevent spills, waste and minimize release to the environment. Handle accordance with good industrial hygiene and safety practice. Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage: Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.
Unsuitable materials for containers: None known.

SECTION 8: Exposure controls/personal protection**Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protections measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact should occur. Examples of preferred glove barrier materials include: Butyl rubber. Neoprene. Nitrile/butadiene rubber (“nitrile” or “NBR”. Ethyl vinyl alcohol laminate (“EVAL”). Polyvinyl alcohol (“PVA”). Polyvinyl chloride (“PVC” or “vinyl”). Viton. Examples of acceptable glove barrier materials include: Natural rubber (“latex”). NOTICE: The selection of a specific glove for a particular application and duration of use in workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Wear clean, body-covering clothing.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

SECTION 9: Physical and chemical properties

| | |
|---|---|
| Appearance | |
| Physical state | : liquid |
| Color | : colorless |
| Odor | : none |
| Odor Threshold | : No data available |
| pH | : No data available |
| Melting point/range | : No data available |
| Freezing point | : No data available |
| Boiling point (760 mmHg) | : > 35°C (>95°F) |
| Flash point | : > 101.1 °C (214.0°F) Method: closed cup |
| Evaporation rate (Butyl Acetate = 1) | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Upper explosion limit | : No data available |
| Lower explosion limit | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density (air=1) | : No data available |
| Relative density (water=1) | : 0.915 |
| Water solubility | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : >400°C (>752°F) |
| Decomposition temperature | : No data available |
| Kinematic Viscosity | : 5cSt @ 25°C (77°F) |

| | |
|-----------------------------|--|
| Explosive properties | : Not explosive |
| Oxidizing properties | : The substance or mixture is not classified as oxidizing. |
| Molecular weight | : No data available |
| Particle size | : Not applicable |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and reactivity

| | |
|---|---|
| Reactivity | : Not classified as a reactivity hazard. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : Can react with strong oxidizing agents. When heated to temperatures above 150 °C (300 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. |
| Conditions to avoid | : None known. |
| Incompatible materials | : Oxidizing agents |
| Hazardous decomposition products: Formaldehyde | |

SECTION 11: Toxicological information

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

For this family of materials

LD50, Rat male and female, >48,500 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

For this family of materials.

LD50, Rat, >2,000 mg/kg No deaths occurred at this concentration

Acute inhalation toxicity

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heater material or mist may cause respiratory irritation.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation

May cause slight eye irritation
Corneal injury is unlikely
May cause mild eye discomfort

Sensitization

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For this family of materials:

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity

For this family of materials: Did not cause cancer in long-term animal studies which used routes of exposure considered relevant to industrial handling. Positive results have been reported in other studies using routes of exposure not relevant to industrial handling.

Teratogenicity

For this family of materials: Did not cause birth defects or any other feral effects in laboratory animals.

Reproductive toxicity

In animal studies on component(s), effects on reproduction were seen only at doses that produced significant toxicity to the parent animals. Contains component(s) which have interfered with fertility in animal studies.

Mutagenicity

For this family of materials: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

COMPONENTS INFLUENCING TOXICOLOGY:**Siloxanes and silicones, dimethyl****Acute inhalation toxicity**

The LC50 has not been determined.

SECTION 12: Ecological information

Exotoxicological information appears in this section when such data is available.

Toxicity

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50,EL50,LL50 >100mg/L in the most sensitive species tested).

LC50, Fish, 96 Hour, > 100 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, >100 mg/l

Acute toxicity to algae/aquatic plants

EC50, algae, 14 d, >2,000 mg/l

Chronic aquatic toxicity

Chronic toxicity to fish

NOEC, Cyprinodon variegatus (Bobwhite quail), >5,000 mg/kg

Persistence and degradability

Siloxanes and silicones, dimethyl

Biodegradability: The product is not biodegradable.

Bio accumulative potential

Siloxanes and silicones, dimethyl

Bioaccumulation: No bio concentration is expected because of the relatively high molecular weight (MW greater than 1000).

Mobility in soil

Siloxanes and silicones, dimethyl

Expected to be relatively immobile in soil (Koc > 5000).

SECTION 13: Disposal considerations

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State, Provincial, and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OR PARTIES HANDLING OR USING THI MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION: Composition information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, SDS Section 7, Stability & Reactivity Information, SDS Section 10 Regulatory Information, SDS Section 15.

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with

applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

SECTION 14: Transport information

DOT Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Consult IMO regulations before transporting ocean bulk

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to his product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: Regulatory information

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

No SARA Hazards

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to- Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) Section 103

This material does not contain any components with a CERCLA RQ.

Pennsylvania Right to Know

The following chemicals are listed because of the additional requirements of Pennsylvania law:

| Components | CASRN |
|-----------------------------------|--------------|
| Siloxanes and Silicones, dimethyl | 63148-62-9 |

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

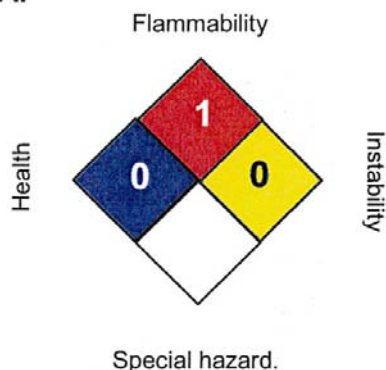
United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SECTION 16: Other information

Further Information

NFPA:



HMIS III:

| | |
|------------------------|----------|
| HEALTH | 0 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Sources of key data used to compile the Material Safety Data Sheet

: Interim technical data, data from raw materials SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.edu/>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.