

SAFETY DATA SHEET

PSF-0.65cSt Silicone Damping Fluid



Data Prepared: February 26th, 2019

SECTION 1: Identification

Product name : PSF-0.65cSt Silicone Damping Fluid

Product code : PSF-0.65cSt

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

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 2

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H225 Highly flammable liquid and vapor.

Precautionary Statements:

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/eye protection/face protection.

Reponse:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards

Static –accumulating flammable liquid
Vapors may form explosive mixture with air.

SECTION 3: Composition/information on ingredients

Substance/Mixture : Substance
Chemical nature : Silicone
Substance name : Hexamethyldisiloxane
CAS-No : 107-46-0

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Hexamethyldisiloxane	107-46-0	>=89 - <=100

SECTION 4: First aid measures

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

Most important symptoms : None known.

and effects, both acute and delayed

Protection of first-aiders

: No special precautions are necessary for first aid responders.

Notes to physician

: Treat symptomatically and supportively.

SECTION 5: Firefighting measures

Suitable extinguishing media

: Water spray
Alcohol-resistant foam
Carbon dioxide
Dry chemical

Unsuitable extinguishing media

: High volume water jet

Specific hazards during fire fighting

: Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
Vapors may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products

: Carbon oxides
Silicon oxides
Formaldehyde

Specific extinguishing methods

: 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:

: Remove all sources of ignition
Ventilate the area
Follow safe handling advise and personal protective equipment recommendations.

Environmental precautions:	<p>Discharge into the environment must be avoided.</p> <p>Prevent further leakage or spillage if safe to do so.</p> <p>Prevent spreading over a wide area (e.g. by containment or oil barriers).</p> <p>Retain and dispose of contaminated wash water.</p> <p>Local authorities should be advised if significant spillages cannot be contained.</p>
Methods and material for containment and cleaning up:	<p>Non-sparking tools should be used.</p> <p>Soak up with inert absorbent material</p> <p>Suppress (knock down) gases/vapors/mists with water spray jet.</p> <p>For large spills, provide diking or other appropriate container.</p> <p>Clean up remaining materials from spill with suitable absorbent.</p> <p>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.</p> <p>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.</p>

SECTION 7: Handling and storage

Technical measures	<p>: Ensure all equipment is electrically grounded before beginning transfer operations.</p> <p>This material can accumulate static charge due to its inherent physical properties and can therefore cause an electrical ignition source to vapors. In order to prevent a fire hazard, as bonding and grounding may be insufficient to remove static electricity, it is necessary to provide an inert gas purge before beginning transfer operations.</p> <p>Restrict flow velocity in order to reduce the accumulation of static electricity.</p>
Local/Total ventilation	<p>: Use with local exhaust ventilation.</p> <p>Use only in an area equipped with explosion-proff exhaust ventilation if advised by assessment of the local exposure potential.</p>
Advice on safe handling	<p>: Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment.</p> <p>Non-sparking tools should be used.</p> <p>Keep container tightly closed</p> <p>Keep away from heat and sources of ignition</p> <p>Take precatinary mesures against static discharges</p>

	Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	: Keep in properly labeled containers Keep tightly closed Keep in a cool, well-ventilated place Store in accordance with the particular national regulations Keep away from heat and sources of ignition
Materials to avoid	: Do not store with the following product types: Strong oxidizing agents Organic peroxides Flammable solids Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures which in contact with water emit flammable gases Explosives Gases

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters/Permissible concentration	Basis
Hexamethyldisiloxane	107-46-0	TWA	50 ppm	DCC OEL

Engineering measures	: Processing may form hazardous compounds (see section 10) Minimize workplace exposure concentrations Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potentiation Use with local exhaust ventilation
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Personal protective equipment

Respiratory protection	: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respiratory regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance
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	where air purifying respirators may not provide adequate protection.
Hand protection Remarks	: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Take note that the product is flammable, which may impact the selection of hand protection. Wash hands before breaks and at the end of workday.
Eye protection	: Wear the following personal protective equipment: Safety glasses
Skin and body protection	: Select appropriate protective clothing based on chemical resistance data and as assessment of the local exposure potential. Wear the following personal protective equipment: Flame retardant antistatic protecting clothing, unless assessment demonstrates that the risk of explosive atmospheres or flash fires is low Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.)
Hygiene measures	: Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones/ organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry or contact Clearco Products.

SECTION 9: Physical and chemical properties

Appearance	: liquid
Color:	: colourless
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available

Initial Boiling point and boiling range	: > 35°C
Flash point	: -1°C Method: Pensky-Martens closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Self-ignition	: The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Upper explosion limit/Upper flammability limit	: No data available
Lower explosion limit/ Lower flammability limit	: No data available
Vapour pressure	: No data available
Relative vapor density	: No data available
Relative density	: 0.760
Solubility(ies)	
Water solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity kinematic	: 0.65 cSt (25°C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: No data available
Particle size	: Not applicable

SECTION 10: Stability and reactivity

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Highly flammable liquid and vapor. Vapors may form explosive mixture with air Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents Hazardous decomposition products will be formed at elevated temperatures/
Conditions to avoid	: Handling operations that can promote accumulation of static charges Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	
Thermal decomposition	: Formaldehyde

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Ingredients:

Hexamethyldisiloxane:

Acute oral toxicity	: LD50 (Rat): >16 ml/kg Assessment: The substance or mixture has no acute oral toxicity Remarks: On basis of test data
Acute inhalation toxicity	: LC50 (Rat): 15956 ppm Exposure time: 4h Test atmosphere: vapor Assessment: The substance or mixture has not acute inhalation toxicity Remarks: On basis of test data
Acute dermal toxicity	: LD50 (Rat): >2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: On basis of test data

Skin corrosion/irritation

No classified based on available information

Ingredients:

Hexamethyldisiloxane:

Species: Rabbit
Result: No skin irritation
Remarks: On basis of test data

Serious eye damage/eye irritation

Not classified based on available information

Ingredients:

Hexamethyldisiloxane:

Species: Rabbit
Result: No eye irritation
Remarks: On basis of test data

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information

Respiratory sensitization

Not classified based on available information

Ingredients:

Hexamethyldisiloxane:

Assessment: Does not cause skin sensitization

Test Type: Human repeat insult patch test (HRIPT)

Species: Humans

Result: Negative

Remarks: On basis of test data

Germ cell mutagenicity

Not classified based on available information

Ingredients:

Hexamethyldisiloxane:

Genotoxicity in vitro

: Test type: Bacterial reverse mutation assay (AMES)

Result: negative

Remarks: On basis of test data.

Test Type: Chromosome aberration test in vitro

Result: negative

Remarks: On basis of test data

Test Type: Mutagenicity (in vitro mammalian cytogenetic test)

Result: negative

Remarks: On basis of test data

Genotoxicity in vivo

: Test type: Mutagenicity (in vivo mammalian bone-marrow Cytogenetic test, chromosomal analysis)

Species: Rat

Application Route: Intraperitoneal injection

Result: negative

Remarks: On basis of test data

Germ cell mutagenicity- Assessment

: Animal testing did not show any mutagenic effects

Carcinogenicity

Not classified based on available information

Ingredients:

Hexamethyldisiloxane:

Species: Rat

Application Route: inhalation (vapor)

Result: negative

Remarks: On basis of test data

Carcinogenicity-Assessment	: Animal testing did not show any carcinogenic effects
IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity	
Not classified based on available information	
<u>Ingredients:</u>	
Hexamethyldisiloxane:	
Effects on fertility	: Test Type: Two-generation reproduction toxicity study Species: Rat, male and female Application Route: inhalation (vapor) Symptoms: No effects on fertility Remarks: On basis of test data
Effects on fetal development	: Test Type: Two-generation reproduction toxicity study Species: Rat, male and female Application Route: inhalation (vapor) Symptoms: No effects on fetal development Remarks: On basis of test data
Reproductive toxicity- Assessment	: No evidence of adverse effects on sexual function and fertility or on development, based on animal experiments.
STOT-single exposure	
Not classified based on available information.	
STOT-repeated exposure	
Not classified based on available information.	
<u>Ingredients:</u>	
Hexamethyldisiloxane:	
Routes of exposure: Ingestion	
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.	
Routes of exposure: Inhalation (vapor)	
Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.	
Routes of exposure: Skin contact	
Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.	
Repeated dose toxicity	
<u>Ingredients:</u>	
Hexamethyldisiloxane:	
Species: Rat	
Application Route: Ingestion	
Remarks: On basis of test data	

Species: Rat
Application Route: Inhalation (vapor)
Remarks: On basis of test data

Species: Rat
Application Route: Skin contact
Remarks: On basis of test data

Aspiration toxicity

Not classified based on available information

Further information

Ingredients:

Hexamethyldisiloxane:

Remarks: This material contains hexamethyldisiloxane (HMDS). Repeated inhalation exposure in rats to HMDS resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

SECTION 12: Ecological information

Ecotoxicity

Ingredients:

Hexamethyldisiloxane:

Toxicity to fish	: NOEC (Oncorhynchus mykiss(rainbow trout)): 0.37 mg/l Exposure time: 96 h LC50 (oncorhynchus mykiss (rainbow trout)): 0.46 mg/l Exposure time: 96 h Remarks: On basis of test data
Toxicity to algae	: EC50 (Selenastrum capricornutum (green algae)): >0.55 mg/l Remarks: No toxicity at the limit of solubility On basis of test data.
M-Factor (Acute aquatic toxicity)	: 1
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia): 0.32 mg/l Exposure time: 21 d NOEC (Daphnia magna (Water flea)): 0.1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211

	Remarks: On basis of test data
Exotoxicology Assessment	
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects
Persistence and degradability	
<u>Ingredients:</u>	
Hexamethyldisiloxane:	
Biodegradability	: Result: Not readily biodegradable Biodegradation: 20% Exposure time: 28 d Method: OECD Test Guideline 301C
Bioaccumulative potential	
<u>Ingredients:</u>	
Hexamethyldisiloxane:	
Bioaccumulation	: Species: Cyprinus carpio (Carp) Biocentration factor (BCF): 2,410 Concentration: 0.04 mg/l Remarks: On basis of test data
Partition coefficient: n-octanol/water	: log Pow: 5.06 (20°C) Remarks: On basis of test data
Mobility in soil	
No data available	
Other adverse effects	
No data available	

SECTION 13: Disposal considerations

Disposal methods	
Resource Conservation and Recovery Act (RCRA)	: When a decision is made to discard this material as supplied, it is clasffied as a RCRA hazardous waste.
Waste Code	: D001: Ignitability
Waste from residues	: Dispose of in accordance with local regulations
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or dispsal. Empty containers retain residue and can be dangerous Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containters to heat, flame, sparks or other sources of ignition. They may explode and cause injury and/or death.

If not otherwise specified: Dispse of as unused product.

SECTION 14: Transport information**International Regulations****UNRTDG**

UN number	: UN1193
Proper shipping name	: FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)
Class	: 3
Packing group	: II
Labels	: 3

IATA-DGR

UN/ID No.	: UN 1993
Proper shipping name	: Flammable loiquid, n.o.s. (Hexamethyldisiloxane)
Class	: 3
Packing group	: II
Labels	: Flammable Liquids
Packing instruction (cargo aircraft)	: 364
Packing instruction (passengar aircraft)	: 353

IMDG-Code

UN number	: UN 1193
Proper shipping name	: FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)
Class	: 3
Packing group	: II
Labels	: 3
EmS Code	: F-E, <u>S-E</u>
Marine Pollutant	: yes

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

Not applicable for product as supplier.

Domestic regulation**49 CFR**

UN/ID/NA number	: UN 1993
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Proper shipping name	: Flammable liquids, n.o.s. (Hexamethyldisiloxane)
Class	: 3
Packing group	: II
Labels	: FLAMMABLE LIQUID
ERG Code	: 128
Marine pollutant	: yes (Hexamethyldisiloxane)

SECTION 15: Regulatory information

EPCRA- Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

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

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHQ RQ.

SARA 301 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards

: Flammable (gases, aerosols, liquids or solids)

Hazard not otherwise classified (physical hazards)

SARA 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.

US State Regulations

Pennsylvania Right To Know

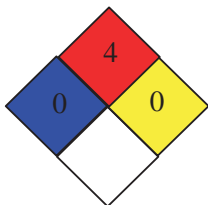
Hexamethyldisiloxane 107-46-0

California Prop. 65

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

The ingredients of this product are reported in the following inventories:

TSCA	: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with TSCA Inventory exemption.
AICS	: All ingredients listed or exempt
IECSC	: All ingredients listed or exempt
ENCS/ISHL	: All components are listed on ENCS/ISHL or exempted from inventory listing.
DSL	: All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

SECTION 16: Other information**Further Information****NFPA:****HMIS IV:**

HEALTH	/	0
FLAMMABILITY		4
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.