



SECTION I: IDENTIFICATION OF THE SUBSTANCE & THE COMPANY

Product Name: **PSF-5cSt Silicone Damping Fluid**

Product Code: PSF-5cSt

Provided by: **Artech Lubricants Packaging,**
18 Taylor Avenue
Bethel, CT 06801
U.S.A.

Telephone No: 001 845 858-8558

Fax No: 001 845 858-8338

E-mail: info@artechpackaging.com

Website: www.artechlubricants.com

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

General Description: Silicone Fluid, Polydimethylsiloxane

Physical Form: Liquid

Color: Colorless

Odor: Characteristic Odor

NFPA Profile: Health 0 Flammability 1 Reactivity 0

SECTION II: HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause temporary redness and discomfort.

Skin: No significant irritation expected from a single short-term exposure.

Inhalation: No significant effects expected from a single short-term exposure.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: No known applicable information.

Inhalation: No known applicable information.

Oral: No known applicable information.

Signs and Symptoms of Overexposure: No known applicable information.

Medical Conditions Aggravated by Exposure: No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	% Weight
Polydimethylsiloxane	63148-62-9	100

SECTION IV: FIRST AID MEASURES

Eye Contact: Immediately flush with water.

Skin Contact: No first aid should be needed.

Inhalation: No first aid should be needed.

Oral: No first aid should be needed.

Notes to Physician: Treat symptomatically.

SECTION V: FIRE FIGHTING MEASURES

Flash Point: >214°F/ > 101.1 °C (Closed Cup)

Autoignition Temperature: >752°F/ > 400°C

Flammability Limits in Air: Not determined

Extinguishing Media: On large fires use dry chemical, foam or water spray. On Small fires use carbon dioxide (CO₂), dry chemical or water spray. Water can be used to cool fire exposed containers.

Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire Hazards: None

SECTION VI: ACCIDENTAL RELEASE MEASURES

Containment/Clean up: Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked, material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Clear area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and 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 federal, state and local laws and regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain federal and state requirements.

SECTION VII: HANDLING AND STORAGE

Use with adequate ventilation. Avoid eye contact.

Use reasonable care and store away from oxidizing materials.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component Exposure Limits

There are no components with workplace exposure limits.

Engineering Controls

Local Ventilation: None should be needed.

General Ventilation: Recommended

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection- safety glasses as a minimum

Skin: Washing at mealtime and end of shift is adequate

Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices

Inhalation: No respiratory protection should be needed.

Suitable Respirator: None should be needed

Personal Protective Equipment for Spills

Eyes: Use proper protection-safety glasses as a minimum

Skin: Washing at mealtime and end of shift is adequate

Inhalation/Suitable Respirator: No respiratory protection should be needed

Precautionary Measures: Avoid eye contact. Use reasonable care

Comments: When heated to temperatures above 150 degrees C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

SECTION IX: PHYSICAL & CHEMICAL PROPERTIES

Physical Form	Liquid
Color	Colorless
Odor	Odorless
Specific Gravity @ 25 deg C	0.915
Viscosity	5cSt
Freezing/Melting Point	Not determined
Boiling Point	> 35 deg C
Vapor Pressure @ 25 deg C	Not determined
Vapor Density	Not determined
Solubility in Water	Not determined
pH	Not determined
Volatile Content	Not determined
Flash Point	>214°F/ > 101.1 °C (Closed Cup)
Autoignition Temperature	>752°F/ > 400 °C
Flammability Limits in Air	Not determined

Note: The above information is not intended for use in preparing product specifications.

SECTION X: STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None
Material to Avoid:	Oxidizing material can cause a reaction.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products:
Carbon oxides and traces of incompletely burned carbon compounds. Silicon Dioxide. Formaldehyde.

SECTION XI: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation

Skin contact

Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 (Rat): > 15,400 mg/kg
Assessment: The substance or mixture has no acute oral toxicity.

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit

Result : No skin irritation

Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit

Result : No eye irritation

Remarks : Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Test Type: Maximization Test (GPMT)

Species: Guinea pig

Remarks: No known sensitizing effect.

Based on test from similar material

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Carcinogenicity

Not classified based on available information.

Product:

Species : Rat
Application Route : Ingestion
Result : negative
Remarks : Based on data from similar materials
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 ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
NTP 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 NTP.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Species: Rabbit, male
Application Route: Ingestion
Symptoms: No effects on fertility.
Remarks: Based on data from similar materials
Effects on fetal development : Test Type: Prenatal development toxicity study (teratogenicity)
Species: Rabbit, female
Application Route: Skin contact
Symptoms: No effects on fetal development.
Remarks: Based on data from similar materials.
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.

Product:

Exposure routes : Ingestion
Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Exposure routes : Skin contact

Assessment : No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Repeated dose toxicity

Product:

Species: Rat
Application Route: Ingestion
Remarks: Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

SECTION XII: ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Air: This product is a high molecular weight liquid polymer which has a very low vapor pressure (<1 mm Hg). As a result it is unlikely to become an atmospheric containment unless generated as an aerosol.

Water: This product has very low solubility (<100 ppb). As it has a specific gravity of < 1, if discharged to water, it will initially form a surface film. As the product is non volatile and has a high binding affinity for particulate matter, it will absorb to particulates and sediment out.

Soil: If discharged to surface water, this product will bind to sediment. If discharged in effluent to a waste water treatment plant, the product is removed from the aqueous phase by binding to sewage sludge. If the sewage sludge is subsequently spread on soil the silicone product is expected to degrade.

Degradation: This product, polydimethylsiloxane, degrades in soil abiotically to form smaller molecules. These in turn are either biodegraded in soil or volatilized into the air where they are broken down in the presence of sunlight. Under appropriate conditions, the ultimate degradation products are inorganic silica, carbon dioxide and water vapor. Due to the very low solubility of this product, standard OECD protocols for ready and inherent biodegradability are not suitable for measuring the biodegradability of this product. The product is removed >80% during the sewage treatment process.

Environmental Effects

Toxicity to Water Organisms: Based on analogy to similar materials this product is expected to exhibit low toxicity to aquatic organisms.

Toxicity to Soil Organisms: Experiments show that when sewage sludge containing polydimethylsiloxane is added to soil, it has no

effect on soil micro-organisms, earthworms or subsequent crops grown in the soil.

Bioaccumulation: This product is a liquid and is a high molecular weight polymer. Due to its physical size it is unable to pass through, or be absorbed by biological membranes. This has been confirmed by testing or analogy with similar products.

Fate and Effects in Waste Water Treatment Plants

This product or similar products has been shown to be non-toxic to sewage sludge bacteria.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC 50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <=2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

SECTION XIII: DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No
State or local laws may impose additional regulatory requirements regarding disposal.

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

Empty containers should be taken to an approved waste handling site
for recycling or disposal.

SECTION XIV: TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101) Not
subject to DOT.

Ocean Shipment (IMDG) Not
subject to IMDG code.

Air Shipment (IATA)
Not subject to IATA regulations

Not regulated as a dangerous good (UNRTDG)

Call ARtech Lubricants , (845) 858-8558, if additional information is required.

SECTION XV: 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 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting
requirements of SARA Title III, Section 302.

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 31the 313

US State Regulations

Pennsylvania Right to Know

Dimethyl Siloxane, Trimethylsiloxyl- 63148-62-9 90-100%
terminated

New Jersey Right To Know

Diemethyl Siloxane, Trimethylsiloxyl- 63148-62-9 90-100%
terminated

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:

KECI : All ingredients listed, exempt or notified.

REACH : All ingredients (pre)-registered or exempt

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

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.

PICCS : All ingredients listed or exempt.

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).

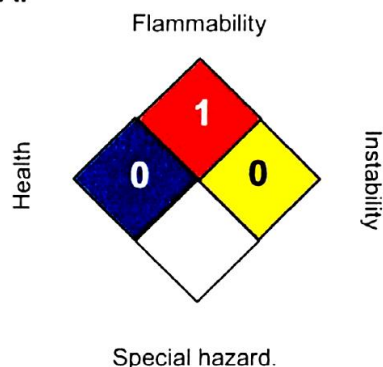
NZIoC : All ingredients listed or exempt.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA(USA).

SECTION XVI: OTHER 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: Interim technical data, data from raw materials SDSs, OECD compile the Safety eChem Portal search results and European Chemicals Data Sheet Agency, <http://echa.europa.edu/>

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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 hereby 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.