

SILICONE OIL 50-6000 CST

Product Description

Silicone Oil is a water clear silicone fluid available in viscosity ranking from 2 centistokes to 20,00,000 centistokes. It provides High efficiency because of excellent wetting of the surface and building of extremely thin lubricating films. SILICONE OIL also exhibits heat stability, oxidation resistance, very low than active solvents and is non-greasy, non-acidifying and virtually odorless. 50-6000 centistokes (cs), are medium viscosity polydimethylsiloxane polymers manufactured to yield essentially linear polymers with average kinematic viscosities ranging from 10 to 6000 cs.

Features and Benefits

- High compressibility
- High damping action
- High dielectric strength
- High oxidation resistance
- High shear ability without breakdown
- High spread ability
- High temperature serviceability
- High compatibility
- High water repellency
- Low environmental hazard
- Low fire hazard
- Low odor
- Low reactivity
- Low surface energy
- Low temperature serviceability
- Low vapor pressure
- Good heat stability
- Good leveling and easy rubout
- Soft feel and lubricity on skin
- Low toxicity
- Clear
- Essentially nontoxic
- Non bioactive
- Nongreasy
- Nonocclusive
- Non rancidifying
- Nonstinging on skin
- Tasteless

How to use

Since the applications for these fluids are numerous and varied, application methods and recommended concentration levels must be considered on an individual basis. Contact Customer Service for specifics.

Incoming Inspection

PETRELPLUS recommends that incoming inspection tests be performed to confirm product identity and condition on arrival. Suggested tests include viscosity and infrared identification, and any other tests deemed necessary for the application. Such tests may or may not be run routinely by PETRELPLUS as lot acceptance tests. Obtain the sales specifications for lot acceptance tests and test limits conducted on 200 Fluids, 50-1000 cs.

Applications

- Cosmetic ingredient
- Elastomer and plastics lubricant
- Electrical insulating fluid
- Foam preventative or breaker
- Household product ingredient
- Mechanical fluid
- Mold release agent
- Personal care product ingredient

- Mechanical fluid
- Mold release agent
- Polish ingredient
- Specialty chemical product ingredient
- Specialty cleaner ingredient
- Surface active agent

Typical Properties

Silicon Oil	50cSt	100cSt	200cSt	350cSt	500cSt	1000cSt	6000cSt
Appearance	Crystal clear liquid from suspended matter and sediment						
Specific Gravity at 25°C (77°F)	0.960	0.964	0.967	0.968	0.969	0.970	0.973
Refractive Index at 25°C (77°F)	1.4022	1.4030	1.4032	1.4034	1.4034	1.4035	1.4035
Kinematic Viscosity @ 25°C	50	100	200	350	500	1000	6000
Color, APHA	5	5	5	5	5	5	5
Flash Point, open cup, °C (°F)	318 (605)	>326 (>620)	>326 (>620)	>326 (>620)	>326 (>620)	>326 (>620)	315°
Acid Number, BCP	trace	Trace	Trace	Trace	trace	trace	Trace
Melt Point, °C (°F) ^{2,3}	-41 (-42)	-28 (-18)	-27 (-17)	-26 (-15)	-26 (-15)	-25 (-13)	-30(-15)
Pour Point, °C (°F)	-70 (-94)	-65 (-85)	-65 (-85)	-65 (-85)	-50 (-58)	-50 (-58)	-20(-10)
Surface Tension at 25°C (77°F), dynes/cm	20.8	20.9	21.0	21.1	21.1	21.2	23.2
Volatile Content, at 150°C (302°F), percent	0.30	0.02	0.07	0.09	0.15	0.11	0.02
Viscosity Temperature Coefficient	0.59	0.60	0.60	0.60	0.60	0.61	0.61
Coefficient of Expansion, cc/cc/°C	0.00104	0.00096	0.00096	0.00096	0.00096	0.00096	0.00096
Thermal Conductivity at 50°C (122°F), g cal/cm • sec•°C	-	0.00037	-	0.00038	-	0.00038	0.00038
Specific Heat at 25°C (77°F), cal/g °C	-	0.352	-	0.350	-	0.349	0.350
Solubility Parameter ⁴	7.3	7.4	7.4	7.4	7.4	7.4	7.5
Solubility in Typical Solvents							
Chlorinated solvents	High	High	High	High	High	High	High
Aromatic solvents	High	High	High	High	High	High	High
Aliphatic solvents	High	High	High	High	High	High	High
Dry alcohols	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Water	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Fluorinated propellants	High	High	High	High	High	High	High
Dielectric Strength at 25°C (77°F), volts/mil	400	400	400	400	400	400	400
Volume Resistivity at 25°C (77°F), ohm-cm	1.0 x 10 ¹⁵ 1.0 x 10 ¹⁵ 1.0 x 10 ¹⁵ 1.0 x 10 ¹⁵ 1.0 x 10 ¹⁵ 1.0 x 10 ¹⁵						

Available Packs: 15, 20, 50 and 210 Ltr.

Shelf Life: Up to 36 months from the date of manufacturing.

* All related specifications are meets or exceeds.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.

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Material safety data sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product SILICONE OIL 50-6000 CST

Supplier PETRELPLUS INC.

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2. COMPOSITION

Silicone Fluid, Polydimethylsiloxane

3. HAZARDS IDENTIFICATION

Not classified as hazardous. Other Hazards

4. FIRST-AID MEASURES

RESPIRATORY SYSTEM

Remove to fresh air and get medical attention.

INGESTION

Do not induce vomiting. Wash mouth out with water and obtain medical attention.

EYES

Rinse immediately with plenty of water for at least 10 minutes. Get Medical Attention.

SKIN

Remove contaminated clothing. Wash affected area with soap and water, get medical attention.

5. FIRE-FIGHTING METHODS

Foam, carbon dioxide or dry powder.

6. ACCIDENTAL RELEASE MEASURE

Contain and absorb in sand or earth. Ensure no material enters drains or water courses. Dispose of as solid waste in accordance with the relevant waste disposal regulations.

7. STORAGE AND HANDLING

Handling - At ambient temperatures wear gloves overalls and eye protection. The work area should be adequately ventilated. No eating drinking or smoking in the work area.

Storage - Store in delivery packs in a cool dry place

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Standard: The substance with exposure limit is: Notation 1: Exposure Standard: 2nd substance with exposure limit is: Notation 2:

PERSONAL PROTECTION

Respiratory Protection:

Type of Cartridge (if Applicable): Eye Protection: Safety Spectacles

Hand Protection: Gloves butyl or nitrile rubber.

Industrial Hygiene: No eating drinking or smoking in the work area.

Ventilation: At room temperature handle in a well-ventilated area. Use exhaust ventilation if exposure to flume or aerosol can occur.

PROTECTION AGAINST FIRE AND EXPLOSION

Combustible but not readily ignited. No explosion hazard.

EC SAFETY PHRASES

Not classified as hazardous.

9. TYPICAL PROPERTIES

Appearance - Crystal Clear liquid

Flash Point, °C, - 315 to 326

Pour Point - (-20 to -70)

Water - Poor

Aromatic solvents - High



10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS -Thermal decomposition produces noxious fumes.

11. TOXICOLOGICAL INFORMATION

LD50 Acute Oral Toxicity: > 5000:mg/Kg: Rat LC50 Acute Inhalation: mg/1:
Eye Irritation: No: Rabbit Skin Irritation: No.: Rabbit Sensation: Further Information:

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION LC50 (96 Hour): mg/1 EC50 (24 Hour): mg/1
Biodegradability (Coupled units):

13. DISPOSAL CONSIDERATIONS

Solid material should be incinerated. Material absorbed on sand should be disposed of as solid waste.

14. TRANSPORT INFOMRATION

IMO -Not applicable
Packing Groups: IATA-DGR Class No.: Not classified TREMCARD: Not classified
RID/ADR Class No.: Not classified Other Information

15. REGULATORY INFORMATION

Classification and labeling according to EC Directives 67/548
Not classified as hazardous. EC Risk Phrases
Not classified as hazardous. Other Hazardous
EC Safety Phrases
Not classified as hazardous

16. OTHER INFORMATION: PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer: -Ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.

DISCLAIMER/USER'S RESPONSIBILITY: PETRELPLUS INC. Provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriate use.

