

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## SilOil, M60.115/200.05

Revision date: 07/21/2023

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### 1. Identification

#### Product identifier

SilOil, M60.115/200.05

Substance name: Polydimethylsiloxan  
CAS No: 63148-62-9

#### Recommended use of the chemical and restrictions on use

##### **Use of the substance/mixture**

Heat transfer oil / cold transfer oil

##### **Uses advised against**

Any non-intended use.

#### Details of the supplier of the safety data sheet

Company name: Huber USA Inc.  
Street: 1101 Nowell Rd Suite 110  
Place: USA-NC 27607 Raleigh  
Telephone: 800-726-4877  
E-mail: info@huber-online.com  
Internet: www.huber-usa.com

**Emergency phone number:** Toll Free: 1-800-424-9300; Local: +1-703-527-3887

### 2. Hazard(s) identification

#### Classification of the chemical

##### **29 CFR Part 1910.1200**

Reproductive toxicity: Repr. 2

#### Label elements

##### **29 CFR Part 1910.1200**

**Signal word:** Warning

**Pictograms:**



#### **Hazard statements**

Suspected of damaging fertility or the unborn child

#### **Precautionary statements**

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.  
If exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container to local/regional/national/international regulations.

#### Hazards not otherwise classified

Endocrine disrupting properties: Dodecamethylcyclohexasiloxane; octamethylcyclotetrasiloxane; [D4].

### 3. Composition/information on ingredients

#### Substances

##### **Chemical characterization**

Polydimethylsiloxane

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**Hazardous components**

CAS No	Components	Quantity
63148-62-9	Polydimethylsiloxan	> 95 %
556-67-2	octamethylcyclotetrasiloxane; [D4]	0,1 - < 0,25 %

**4. First-aid measures****Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

**After contact with skin**

Gently wash with plenty of soap and water. Remove contaminated clothing immediately. In case of skin irritation consult a doctor.

**After contact with eyes**

Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

**Most important symptoms and effects, both acute and delayed**

See sections 2 and 11

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Alcohol resistant foam. Atomized water. Sand

**Unsuitable extinguishing media**

High power water jet.

**Specific hazards arising from the chemical**

Can be released in case of fire: Toxic gases/vapors

**Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

See protective measures under point 7 and 8.

**For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

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#### For emergency responders

No special measures are necessary.

#### Environmental precautions

Discharge into the environment must be avoided. Prevent spread over a wide area (e.g. by containment or oil barriers).

#### Methods and material for containment and cleaning up

##### For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

##### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## 7. Handling and storage

#### Precautions for safe handling

##### Advice on safe handling

Wear suitable protective clothing. (See section 8.)

##### Advice on protection against fire and explosion

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharge. Usual measures for fire prevention.

##### Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work. Avoid contact with skin, eyes and clothes. Take off immediately all contaminated clothing.

##### Further information on handling

General protection and hygiene measures: See section 8. Vapors / aerosols must be extracted by suction immediately at point of origin.

#### Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

##### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20 °C

Maximum storage temperature: 50 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

## 8. Exposure controls/personal protection

#### Control parameters

##### Additional advice on limit values

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### Exposure controls

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**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses; chemical goggles (if splashing is possible). Standards: EN 166 or 29 CFR 1910.133

**Hand protection**

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of the glove material 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The selected protective gloves should satisfy the specifications of standards like EN 374.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Suitable protective clothing: Lab apron.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. Breathing apparatus in the event of aerosol or mist formation. half-mask with filter EN 149 or 29 CFR 1910.134 .

**Environmental exposure controls**

No special precautionary measures are necessary.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state:	liquid
Color:	colourless
Odor:	weak

	Test method
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	> 120 °C ISO 2592
Auto-ignition temperature:	350 °C
Decomposition temperature:	not determined

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pH-Value:	not applicable
Viscosity / kinematic: (at 25 °C)	ca. 5 mm <sup>2</sup> /s
Water solubility:	Immiscible
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	SECTION 12: Ecological information
Vapor pressure:	not determined
Density (at 25 °C):	0,92 g/cm <sup>3</sup>
Relative vapour density:	not determined

**Other information****Information with regard to physical hazard classes**

Explosive properties

none

Sustaining combustion:

Not sustaining combustion

Self-ignition temperature

Gas:

not determined

Oxidizing properties

none

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

not determined

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

Viscosity / dynamic:

not determined

Flow time:

not determined

**10. Stability and reactivity****Reactivity**

No information available.

**Chemical stability**

Stability:

Stable

The product is chemically stable under recommended conditions of storage, use and temperature.

**Possibility of hazardous reactions**

Hazardous reactions:

Will not occur

No information available.

**Conditions to avoid**

Protect against: UV-radiation/sunlight. heat. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

**Incompatible materials**

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

**Hazardous decomposition products**Can be released in case of fire: Silicon dioxide (SiO<sub>2</sub>)

Measurements have shown that at temperatures above approx. 150 °C a small amount of formaldehyde is split off by oxidative decomposition.

**11. Toxicological information**

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**Route(s) of Entry**

Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Skin contact: May cause irritation. Eye contact: May cause irritation.

**Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No data available.

**Acute toxicity**

Based on available data, the classification criteria are not met.

Acute oral toxicity

Parameter: LD50

Exposure route: dermal

Species: Rat

Effective dose: > 5000 mg/kg

By analogy.

Acute dermal toxicity

Parameter: LD50

Exposure route: oral

Species: Rat

Effective dose: > 2000 mg/kg

By analogy.

Acute inhalation toxicity

The product has not been tested.

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
556-67-2	octamethylcyclotetrasiloxane; [D4]				
	oral	LD50 > 4800 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	ECHA Dossier	OECD Guideline 402

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitizing effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of damaging fertility or the unborn child (octamethylcyclotetrasiloxane; [D4])

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Octamethylcyclotetrasiloxane

In-vitro mutagenicity:

Method:

-OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

-OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Result: negative.

Literature information: REACH Dossier

**Specific target organ toxicity (STOT) - single exposure**

Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.

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Octamethylcyclotetrasiloxane

Chronic inhalative toxicity:

Method: other guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Exposure time: 2 years

Species: Rat

Results: NOAEC = 150 ppm.

Literature information: REACH Dossier

Carcinogenicity (OSHA): Not listed.

Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

No data available.

**Information on other hazards****Endocrine disrupting properties**

Endocrine disrupting properties: Dodecamethylcyclohexasiloxane; octamethylcyclotetrasiloxane; [D4].

**12. Ecological information****Ecotoxicity**

The product has not been tested.

**Persistence and degradability**

The product has not been tested.

**Bioaccumulative potential**

No indication of bioaccumulation potential.

**Mobility in soil**

No data available.

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**Other adverse effects**

No data available.

**Further information**

Do not allow to enter into surface water or drains.

**13. Disposal considerations****Waste treatment methods****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

**RCRA Hazardous wastes (Resource Conservation and Recovery Act)**

None

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**14. Transport information****U.S. DOT 49 CFR 172.101**

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**Proper shipping name:** Not a hazardous material with respect to these transport regulations. &&  
Not controlled under DOT

#### Marine transport (IMDG)

**UN number or ID number:** No dangerous good in sense of this transport regulation.

**UN proper shipping name:** No dangerous good in sense of this transport regulation.

**Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**Packing group:** No dangerous good in sense of this transport regulation.

#### Air transport (ICAO-TI/IATA-DGR)

**UN number or ID number:** No dangerous good in sense of this transport regulation.

**UN proper shipping name:** No dangerous good in sense of this transport regulation.

**Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**Packing group:** No dangerous good in sense of this transport regulation.

#### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### Special precautions for user

See section 8.

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

not relevant

## 15. Regulatory information

### U.S. Regulations

#### National Inventory TSCA

Polydimethylsiloxan, octamethylcyclotetrasiloxane Dodecamethylcyclohexasiloxane listed in the TSCA inventory 8 (b): (x) active ,

Polydimethylsiloxan, octamethylcyclotetrasiloxane Dodecamethylcyclohexasiloxane not listed under TSCA 12(b)

#### National regulatory information

SARA Section 311/312 Hazards:

octamethylcyclotetrasiloxane; [D4] (556-67-2): Fire hazard

### State Regulations

#### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

This preparation is hazardous in the sense of regulation 29 CFR Part 1910.1200.

## 16. Other information

### Hazardous Materials Identification System (HMIS)

Health: 3

Flammability: 1

Physical Hazard: 0

Personal Protection: B

### NFPA Hazard Ratings

Health: 3

Flammability: 1

Reactivity: 0

Unique Hazard: -

### Changes





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Revision No: 3,0

Rev. 1,0; Initial release: 25.09.2020

Rev. 2,0; 28.07.2022, Changes in chapter: 2-16

Rev. 3,0; 21.07.2023, Revision

**Abbreviations and acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists

ASTM: American Society for Testing and Materials.

ATE: acute toxicity estimate

BCF: Bio concentration factor

ECHA: European Chemicals Agency

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations

DOT: Department of Transportation

d: days

EC50: Half maximal effective concentration

EN: European Norm

EPA: Environmental Protection Agency

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

h: hours

HMIS: Hazardous Materials Identification System

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IBC: Intermediate Bulk Container

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

MARPOL: marine pollution

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NTP: National Toxicology Program

N/A: not applicable

NFPA: National Fire Protection Association

UN: United Nations

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

RTECS: Registry of Toxic Effects of Chemical Substances

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

SARA: Superfund Amendments and Reauthorization Act

STEL: short-term exposure limits

TSCA: Toxic Substances Control Act

TWA: time weighted average

VOC: Volatile Organic Compounds

**Other data**

Classification according 29 CFR Part 1910.1200: - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

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Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.