Safety Data Sheet

according to 29 CFR 1910.1200(g)

SilOil, M80.055.03

1. Identification

Product identifier

SilOil, M80.055.03

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

Flammable liquids: Flam. Liq. 4

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Hazard statements

Combustible liquid

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
Store in a well-ventilated place.
Dispose of contents/container to local/regional/national/international regulations.

Hazards not otherwise classified

Endocrine disrupting properties: Dodecamethylcyclohexasiloxane.

3. Composition/information on ingredients

Substances

Chemical characterization

Polydimethylsiloxane

Relevant ingredients

CAS No	Components	Quantity
63148-62-9	Polydimethylsiloxan	> 95 %

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

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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_2). 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).

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. Store only in original container.

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 absorbtion 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

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 ISO 16321-1 or 29 CFR 1910.133

Hand protection

Wear suitable gloves.
Suitable material:
FKM (fluororubber). - Thickness of the glove material 0,4 mm
Breakthrough time >= 8 h
Butyl rubber. - Thickness of the glove material 0,5 mm
Breakthrough time >= 8 h
CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm
Breakthrough time >= 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.
Respiratory protection necessary at:
-aerosol or mist formation
-Exceeding exposure limit values
Suitable respiratory protection apparatus: Full-/half-/quarter-face masks (DIN EN 136/140) Type A-P2
Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

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:	odourless

		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:	> 62 °C	ISO 2592

Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	not applicable
Viscosity / kinematic: (at 25 °C)	ca. 3 mm²/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):	ca. 0,9 g/cm³
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.

Hazardous decomposition products

Can be released in case of fire: Carbon monoxide, Carbon dioxide (CO_2). Silicon dioxide (SiO_2)
Measurements have shown that at temperatures above approx. 150 °C a small amount of formaldehyde is split off by oxidative decomposition.

11. Toxicological information

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

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

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

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

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

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.

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.

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

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, Dodecamethylcyclohexasiloxane listed in the TSCA inventory 8 (b): (x) active ,
Polydimethylsiloxan, Dodecamethylcyclohexasiloxane not listed under TSCA 12(b)

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:	0
Flammability:	2
Physical Hazard:	0
Personal Protection:	B

NFPA Hazard Ratings

Health:	0
Flammability:	2
Reactivity:	0
Unique Hazard:	-

Changes

Revision date:	02/26/2024
Revision No:	4,0

Rev. 1,0; Initial release: 25.09.2020
Rev. 2.0; 28.07.2022, Changes in section: 2-16
Rev. 3,0; 21.07.2023, Revision
Rev. 4,0; 26.02.2024, Revision; Changes in section: 2 - 16

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.
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.