

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name: SilOil P20.275.50
No.: 6157, 6158

Print date: 27.12.2016
Valid from: 01.02.2016

Version: 1.1.0



1. Identification of the substance/mixture and of the company/undertaking

1.1 Identification of the substance/mixture

Product name: **SilOil P20.275.50**
No.: 6157, 6158
Chemical characterization: —
EC No: —
CAS No: —
REACH Registration No: —

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:
Heat transfer fluid.
Uses advised against:
No information available.

1.3 Identification of the company/supplier

Supplier:
Peter HUBER Kältemaschinenbau GmbH
Street:
Werner-von-Siemens-Str. 1
Postal code:
DE-77656 Offenburg

Contact for technical information

Technical Support
Tel.: +49 (0) 781 9603-244
Fax: +49 (0) 781 57211
Email: support@huber-online.com

1.4 Emergency telephone number

+49 (0) 179 6910027 (Mo-Fr 08:00-16:00 / 8.00am-4.00pm)
+49 (0) 2751 524-113
+49 (0) 61 31 1924 0 (Giftinfo Mainz, 24 h German and English)
+49 (0) 761-19 240 (Vergiftungs-Informationszentrale Freiburg)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
None.
Classification procedure
Calculation method.

2.2 Label elements

None.

2.3 Other hazards

No information available.

3. Composition / information on ingredients

3.1 Mixtures

Hazardous ingredients
None.
Further ingredients
POLYDIMETHYLSILOXANE

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4. First aid measures

4.1 Description of first aid measures

General information

Change contaminated, saturated clothing. When in doubt or if symptoms are observed, get medical advice.

Following inhalation

Provide fresh air.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap.

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water.

Self-protection of the first aider

No special measures are necessary.

Information to physician

Treatment

Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Alcohol resistant foam. Water spray. Jet extinguishing powder. Sand.

Unsuitable extinguishing media

None.

5.2 Special hazards arising from the substance or mixture

No information available.

5.3 Advice for firefighters

In cases of fire toxic gases may be formed.

Special protective equipment for firefighters.

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

None.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Take the precautions customary when handling chemicals. Use personal protection equipment. Special danger of slipping by leaking / spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

For cleaning up

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

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6.4 Reference to other sections

None.

6.5 Additional information

No data available.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Protective measures

Use only in well-ventilated areas. Do not breathe gas / fumes / vapour / spray.

Measures to prevent fire

Keep away from sources of ignition. – No smoking. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.

Hints on joint storage

Storage class (TRGS 510) : 10

Further information on storage conditions

Protect containers against damage.

Maximum storage temperature 50°C.

7.3 Specific end use(s)

None.

8. Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

Biological limit values

No data available.

DNEL/DMEL and PNEC values

DNEL/DMEL

No data available.

PNEC

No data available.

8.2 Exposure controls

Personal protection equipment

Eye / face protection

Eye glasses with side protection

Skin protection

Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material: Butyl caoutchouc (butyl rubber). NBR (Nitrile rubber).

Breakthrough time (maximum wearing time) : 480 minutes. Check leak tightness/impermeability prior to use. 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.

Respiratory protection

Usually no personal respirative protection necessary.

General health and safety measures

Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs.

8.3 Additional information

No data available.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid.
Colour: Different according to colour.
Odour: Odourless.

Safety relevant basis data

Solidifying point:	(1 bar / 1 Pa)		Not determined	Brookfield
Melting point / melting range:		ca.	-55 °C	
Freezing point:				
Initial boiling point and boiling range :		>	300 °C	
Decomposition temperature:			Not determined	
Ignition temperature:		ca.	450 °C	
Flash point:		>	250 °C	ISO 2592
Lower explosion limit:			No data available	
Upper explosion limit:			No data available	
Vapour pressure:	(50 °C)		Not determined	
Density:	(20 °C)	ca.	0,96 g/cm ³	
Solvent separation test:	(20 °C)		No data available	
Fat solubility:	(20 °C)		No data available	
Solubility in water:			Insoluble	
pH value:	(20 °C)	ca.	7	
log P O/W:			No data available	
Odour threshold:			Not determined	
Relative vapour density	(20 °C)		Not determined	
Evaporation rate:			Not determined	
Vapourisation rate:			Not determined	
Kinematic Viscosity:	(25 °C)	ca.	50 mm ² /s	
Flammable solids:	No data available			
Flammable gases:	No data available			
Oxidising liquids:	Not oxidizing			
Explosive properties:	Not explosive according to EU A.14.			
Corrosive to metals:	Not determined			

9.2 Other information

No data available.

10. Stability and reactivity

10.1 Reactivity

No dangerous reactions known.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.
If the maximum operating temperatures of the heat transfer fluid is not observed, it leads first to an increase in viscosity.
Above a temperature of about 150 °C in an open bath it may result in gelling of the heat transfer fluid.
We recommend regular review of the heat transfer fluid and / or replacement of the heat transfer fluid.

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It should be borne in mind that the heat transfer fluid has a finite life and its condition must be checked regularly.

At high temperatures, Silicon Oil can be chemically altered;

- in the presence of oxidising media such as air, an increase in viscosity and possibly even gelling of the fluid owing to crosslinking reactions can be expected
- contact with products having a catalytic effect, such as acids, lyes and various metal compounds usually induces a process of depolymerisation, resulting in a drop in viscosity

The higher the operating temperature the faster these reactions take place and oxidation is particularly accelerated by use of the oil in an open bath.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

10.7 Additional information

No data available.

11. Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter:	LD50 (POLYDIMETHYLSILOXANE)
Exposure route:	Oral
Species:	Rat
Effective dose:	> 5000 mg/kg

The product has not been tested.

Acute dermal toxicity

Parameter:	LD50 (POLYDIMETHYLSILOXANE)
Exposure route:	Dermal
Species:	Rabbit
Effective dose:	> 10000 mg/kg

The product has not been tested.

Acute inhalation toxicity

Parameter:	LC50 (POLYDIMETHYLSILOXANE)
Exposure route:	Inhalation
Species:	Rat
Effective dose:	> 535 mg/kg
Exposure time:	1 h

The product has not been tested.

Specific symptoms in animal studies

The product has not been tested.

Irritant and corrosive effects

Primary irritation to the skin

The product has not been tested.

Irritation to eyes

The product has not been tested.

Irritation to respiratory tract

The product has not been tested.

Sensitisation

In case of skin contact

The product has not been tested.

In case of inhalation

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Repeated dose toxicity (subacute, subchronic, chronic)

The product has not been tested.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

The product has not been tested.

Germ cell mutagenicity

The product has not been tested.

Reproductive toxicity

The product has not been tested.

Specific target organ toxicity (single exposure)

The product has not been tested.

Specific target organ toxicity (repeated exposure)

The product has not been tested.

Aspiration hazard

The product has not been tested.

11.2 Toxicokinetics, metabolism and distribution

The product has not been tested.

11.3 Other adverse effects

No data available.

11.4 Additional information

No data available.

12. Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter:

LCO (POLYDIMETHYLSILOXANE)

Species:

Leuciscus idus (golden orfe)

Evaluation parameter:

Acute (short-term) fish toxicity

Effective dose.

200 mg/l

Exposure time:

96 h

Acute (short-term) daphnia toxicity

The product has not been tested.

Acute (short-term) algae toxicity

The product has not been tested.

Bacteria toxicity

Parameter:

ECO (POLYDIMETHYLSILOXANE)

Species:

Pseudomonas putida

Effective dose:

> 10000 mg/l

The product has not been tested.

Terrestrial toxicity

The product has not been tested.

Toxicity to terrestrial plants

The product has not been tested.

Effects in sewage plants

Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.

12.2 Persistence and degradability

Abiotic degradation

The product can be eliminated from water by abiotic processes, e.g. adsorption on activated sludge.

Biodegradation

Not readily biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

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12.4 Mobility in soil

The product has not been tested.

Adsorption/Desorption

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

No data available.

12.7 Additional ecotoxicological information

No data available.

13. Disposal considerations

13.1 Waste treatment methods

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Consult the appropriate local waste disposal expert about waste disposal.

Product/Packaging disposal

Waste treatment options

Appropriate disposal / Product

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Appropriate disposal / Package

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

14. Transport information

14.1 UN number

No dangerous goods in sense of this transport regulation.

14.2 UN proper shipping name

No dangerous goods in sense of this transport regulation.

14.3 Transport hazard class(es)

No dangerous goods in sense of this transport regulation.

14.4 Packing group

No dangerous goods in sense of this transport regulation.

14.5 Environmental hazards

No dangerous goods in sense of this transport regulation.

14.6 Special precautions for user

None.

15. Regulatory information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

National regulations

Technische Anleitung Luft (TA-Luft)

Sum organic substances class III : 85 - 100 %

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

Additional information

Substance / product listed in the following inventories

TSCA EINECS/ELINCS DSL/NDL ENCS (Class 1 and 2) AICS NZIoC KECL IECSC PICCS

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15.2 Chemical safety assessment

No information available.

16. Other information

16.1 Indication of changes

02. Classification of the substance or mixture · 02. Label elements

16.2 Abbreviations and acronyms

REACH - Registration, Evaluation, Authorisation of Chemicals

GHS - Globally Harmonised System of Classification and Labeling

CLP - Classification, Labeling and Packaging of Substances and Mixtures

CAS - Chemical Abstract Service

TWA - Time Weighted Average

DNEL/DMEL - Derived No Effect Level

PNEC - Predicted No Effect Concentration

STP - Sewage Treatment Plant

TRGS - Technical Rules for Hazardous Substances (German Regulations)

STEL - Short-term Exposure Limit

TLV - Threshold limit value

AGW - Occupational threshold limit value

RCP - Reciprocal Calculation Procedure

ATE - Acute Toxicity Estimate

MAK - Threshold limit values Germany

LD50 - Lethal Dose, 50%

LC50 - Lethal concentration, 50%

OECD - Organization for Economic Cooperation and Development

NOAEL - No Observed Adverse Effect Level

EC50 - Half maximal effective concentration

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

vPvB - Very Persistent, very Bioaccumulative

ADR/RID - European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord européen relatif au transport international des marchandises Dangereuses par Route)/Regulations Concerning the International Transport of Dangerous Goods by Rail (Règlement concernant le transport International ferroviaire de marchandises Dangereuses)

IMDG - International Maritime Dangerous Goods Code

ICAO - International Civil Aviation Association

IATA - International Air Transport Association

VwVws - German administrative regulation on the classification of substances hazardous to water into water hazard classes

16.3 Key literature references and sources for data

None.

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008

[CLP]

No information available.

16.5 Relevant H- and EUH-phrases (Number and full text)

None.

16.6 Training advice

None.

16.7 Additional information

None.

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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.