

Safety Data Sheet

Trade name: SynOil M10.120.08
No.: 9684,9685

Print date: 30.12.2016
Valid from: 06. 2013

Version: 3.0.0



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

1.1 Identification of the substance / mixture

Substance name: SynOil M10.120.08
No.: 9684, 9685
Product name: —
EC No: —
CAS No: 68649-11-6
REACH Registration No: —

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

Relevant identified uses:
Thermofluid.

1.3 Identification of the company / supplier

Supplier:
Peter HUBER Kältemaschinenbau AG
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: info@huber-online.com

1.4 Emergency telephone number

+49 (0) 551 192 40 for medical advice
+49 (0) 208 762 8322 in case of transport incidents and other emergencies
+49 (0) 61 31 1924 0 (Giftinfo Mainz, 24 h German and English)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)
Acute Tox. 4; H332
Asp. Tox. 1; H304
Classification in accordance with Directive 67/548/EEC or 1999/45/EC
Xn; R20
Xn; R65

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

68649-11-6 (1-Decene, dimer, hydrogenated)

Hazard pictograms



GHS07



GHS08

Signal word: Danger

Hazard statements

H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.

Precautionary statements

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| | |
|-----------|--|
| P261 | Avoid breathing dust / fume / gas / mist / vapours / spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P331 | Do NOT induce vomiting. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to hazardous or special waste collection point. |

2.3 Other hazards

PBT assessment
The product is not considered to be a PBT.
vPvB assessment
The product is not considered to be a vPvB.

3. Composition / information on ingredients

3.1 Substances

Chemical characterization

Substance name 1-Decene, dimer, hydrogenated

Identification numbers

CAS no. 68649-11-6

3.2 Mixtures

Not applicable. The product is not a mixture.

4. First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Summon a doctor immediately.

After skin contact

When in contact with the skin, clean with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion

Do not induce vomiting - aspiration hazard. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Development of local necrosis because of retarded pain and tissue damage a couple of hours after the injection is documented.

Effects

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide; Foam; Dry chemical extinguisher; Water mist

Unsuitable extinguishing media

Full water jet.

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5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂).

5.3 Advice for firefighters

Use self-contained breathing apparatus. Cool endangered containers with water spray jet. Wear protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Use breathing apparatus if exposed to vapours/dust/aerosol. High risk of slipping due to leakage/spillage of product.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil / soil.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g., sand, kieselguhr, universal binder). When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Wash hands before breaks and after work. Do not inhale vapours. Wash soiled clothing immediately.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Do not store in open or unlabelled container.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original one. Emptied containers may contain product residues and therefore must be handled with care. Reuse only after appropriate cleaning and reconditioning.

Advice on storage assembly

Do not store together with: Oxidizing agents.

7.3 Specific end use(s)

No data available.

8. Exposure controls / personal protection

8.1 Control parameters

No parameters available for monitoring.

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8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166).

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form / Colour: liquid, colourless

Odour: mild

Odour threshold: No data available

pH value: No data available

Boiling point / boiling range: Value 310 °C

Melting point / melting range: No data available

Decomposition point / decomposition range: No data available

Pour point: Value -66 °C

Flash point: Value 145 °C; Method ASTM D 93

Auto-ignition temperature: No data available

Oxidising properties: No data available

Explosive properties: No data available

Flammability (solid, gas): No data available

Lower flammability or explosive limits: No data available

Upper flammability or explosive limits: Wert 0,013 kPa; Bezugstemperatur 20 °C

Vapour pressure: No data available

Vapour density: No data available

Evaporation rate: No data available

Relative density: Wert 0,80 g/cm³; Bezugstemperatur 15 °C

Density: Bemerkung - gering löslich

Solubility in water: No data available

Solubility(ies): No data available

Partition coefficient: n-octanol / water:

Viscosity:

Value 5,2 cSt

Reference temperature 40 °C

Type kinematic

Value 1,7 cSt

Reference temperature 100 °C

Type kinematic

9.2 Other information

No data available.

10. Stability and reactivity

10.1 Reactivity

No data available.

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10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Extreme heat.

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

Oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

11. Toxicological information

11.1 Acute toxicity

Acute oral toxicity

LD50 > 5000 mg/kg
Species rat
Method OECD

Acute dermal toxicity

LD50 > 2000 mg/kg
Species rabbit
Method OECD

Acute inhalation toxicity

LC50 < 5 mg/l
Duration of exposure 4 h
Species rat
Reference substance Aerosol
Method OECD

Skin corrosion / irritation

Species rabbit
Method OECD
Evaluation practically non irritating
Evaluation/classification Based on available data, the classification criteria are not met.

Serious eye damage / irritation

Species rabbit
Method OECD
Evaluation slightly irritant
Evaluation/classification Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Route of exposure Skin
Method OECD
Evaluation non-sensitizing

Germ cell mutagenicity

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

Reproduction toxicity

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

Carcinogenicity

No data available

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STOT-single exposure

No data available

STOT-repeated exposure

Method

OECD

Evaluation/classification

Based on available data, the classification criteria are not met

Aspiration hazard

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

Other information

Toxicological information is based on test results on structurally related substances. Test methods: similar or equivalent to those in line with the OECD guidelines for the respective danger class.

12. Ecological information

12.1 Toxicity

Fish toxicity

No data available.

Daphnia toxicity

No data available.

Algae toxicity

No data available.

Bacteria toxicity

No data available.

12.2 Persistence and degradability

Biodegradability

Value 49.2 - 53.5

Duration 28 day(s)

Reference substance Water

Evaluation readily biodegradable

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

Remarks

Sedimentadsorption:
Medium: Multi media
log Koc: > 6,2

12.5 Results of PBT and vPvB assessment

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

12.6 Other adverse effects

No data available.

12.7 Other information

Do not discharge product unmonitored into the environment.

13. Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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14. Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

| | |
|--------------------|-------------------------------|
| Product name | ISO- AND CYCLO-ALKANES (C12+) |
| Pollution category | Z |
| Ship type | 3 |

15. Regulatory information

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

National regulations

National chemical inventories

| | |
|----------------------|-------------------|
| TSCA (USA) | components listed |
| DSL/NDL (Canada) | components listed |
| MITI/ENCS (Japan) | components listed |
| ECL (Korea) | components listed |
| AICS (Australia) | components listed |
| IECSC / NEPA (China) | components listed |
| PICCS (Philippines) | components listed |

15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

16. Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R20 Harmful by inhalation.

R65 Harmful: may cause lung damage if swallowed.

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This information is based on our present state of knowledge and experience.
The security data sheet describes products with a view to the security requirements.
However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.