

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

- **Product identifier**
- **Trade name:** ***THERMAL H350***
MARLOTHERM® SH
- **Article number:** Order-No.(5 L): 8940111
- **CAS Number:**
26898-17-9
- **EINECS Number:**
248-097-0
- **Registration number** 01-2119488667-17-0000
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use SU3 Industrial uses:** Uses of substances as such or in preparations at industrial sites
- **Product category PC16** Heat transfer fluids
- **Application of the substance / the preparation** Industrial application, heat transfer medium
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Julabo Labortechnik GmbH
Eisenbahnstrasse 45
D-77960 Seelbach/Deutschland
- **Further information obtainable from:**
sales & technical support
+49(0)782351-180
- **Emergency telephone number:** +49(0)89-19240 (24h)

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 4 H413 May cause long lasting harmful effects to aquatic life.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

R53: May cause long-term adverse effects in the aquatic environment.

- **Label elements**

- **Labelling according to EU guidelines:**

Marking required.

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xn Harmful

- **Risk phrases:**

53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

- **Safety phrases:**

57 Use appropriate container to avoid environmental contamination.

(Contd. of page 1)

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
26898-17-9 dibenzyltoluene
- **Identification number(s)**
- **EINECS Number:** 248-097-0

4 First aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Take affected persons into fresh air and keep quiet.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Call for a doctor immediately.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** Carbon dioxide (CO₂)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Keep receptacles tightly sealed.
- **Information about fire - and explosion protection:** No special measures required.

(Contd. on page 3)

(Contd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Suitable material for receptacles and pipes: steel or stainless steel.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class:** VCI: 10

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**
Fluorocarbon rubber (Viton)
- **For the permanent contact gloves made of the following materials are suitable:**
Fluorocarbon rubber (Viton)
- **Eye protection:** Goggles recommended during refilling

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

| | |
|----------------|----------------|
| Form: | Fluid |
| Colour: | Yellowish |
| Odour: | Characteristic |
- **pH-value:** neutral
- **Change in condition**

| | |
|-------------------------------------|-------------------|
| Melting point/Melting range: | 6°C |
| Boiling point/Boiling range: | 390°C (1.013 hPa) |
| Solidification point: | -34°C |
- **Flash point:** 200°C (DIN 51758)
- **Ignition temperature:** 450°C (DIN 51794)

(Contd. on page 4)

(Contd. of page 3)

| | |
|---|--|
| · Danger of explosion: | <i>Product does not present an explosion hazard.</i> |
| · Vapour pressure at 20°C: | < 0,01 hPa |
| · Density at 20°C: | 1, 04 g/cm ³ |
| · Solubility in / Miscibility with water: | <i>Not miscible or difficult to mix.</i> |
| · Segregation coefficient (n-octanol/water) at 20°C: | 6,2 log POW |
| · Viscosity: | |
| Dynamic at 20°C: | 49 mPas |
| Organic solvents: | 0,0 % |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Acute effects (acute toxicity, irritation and corrosivity)**
- LD50, oral (rat) > 2000 mg/kg (OECD 401)*
- LD50, dermal (rat) > 2000 mg/kg (OECD 402)*
- **Sensitisation** *Buehler-Test (guinea pic), not sensibility, (OECD 406)*

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:**
- EC50 Daphnia magna > 1-10 mg/l (48 h), OECD 202*
- EC50 Scenedesmus subspicatus < 1mg/l, 72 h, OECD 201*
- **Persistence and degradability**
- < 60 % in 28 dm OECD TG 301 B*
- inherent degradable: 20-70 %, 62 d*
- Not easily biodegradable*
- **Ecotoxicological effects:**
- **Remark:** *Very toxic for fish*
- **Additional ecological information:**
- **General notes:**
- Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water*
- Do not allow product to reach ground water, water course or sewage system.*
- Danger to drinking water if even small quantities leak into the ground.*
- Also poisonous for fish and plankton in water bodies.*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*

(Contd. on page 5)

· **vPvB:** Not applicable.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

| | |
|----------|--------------------------------|
| 07 01 99 | wastes not otherwise specified |
|----------|--------------------------------|

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** --

· **Maritime transport IMDG:**

· **IMDG Class:** --

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** --

· **Special precautions for user** Not applicable.

· **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This document has been created on: 10.12.2009

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

revised: 08.06.2011, Kap. 2 und 3

· **Department issuing MSDS:**

LOGAR Günther Hasel e.K.

Baden-Airpark, Airport Boulevard B 210

D-77836 Rheinmünster

Tel: +49(0)7229-1868-163

Fax: +49(0)7229-1868-165

· **Contact:** info@logar.de

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)