

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.02.2020

Version number 104

Revision: 18.02.2020

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

- 1.1 Product identifier

- Trade name **Solarliquid HT gebr./WS**

- Article number: 1004081523004

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

- **Application of the substance / the mixture**
antifreeze
Heat transfer fluid for solar systems

- 1.3 Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**

Staub & Co. - Silbermann GmbH
Ostendstraße 124
D-90482 Nürnberg
Tel.: 0911 / 5482 - 0
Fax: 0911-5482 -1119
Mail: info@staub-silbermann.de

- **Informing department:**

Abteilung HSE
e-Mail: sdb@staub-silbermann.de

- 1.4 Emergency telephone number:

National Poisons Information Service (NPIS) - Emergency call (healthcare professionals): (+44) 844 892 0111 - 0344 892 0111

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No 1272/2008**

The product is not classified, according to the CLP regulation.

- 2.2 Label elements

- **Labelling according to Regulation (EC) No 1272/2008** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **Additional information:**

Safety data sheet available on request.

- 2.3 Other hazards

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures

- **Description:** Mixture of the substances listed below with harmless additions

- **Dangerous components:**

CAS: 3164-85-0	Potassium 2-Ethylhexanoate Hydrate	≤2.5%
EINECS: 221-625-7	Skin Irrit. 2, H315; Eye Irrit. 2, H319	

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

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- **Composition/Ingredients** Void

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- **General advice:** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**

The product is not skin irritating.

Wash with water.

- After eye contact

Rinse immediately opened eye for several minutes under running water. Then consult doctor.

- After swallowing

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

- 5.2 Special hazards arising from the substance or mixture

Can be released in case of fire:

carbon monoxide (CO)

carbon dioxide (CO₂)

- 5.3 Advice for firefighters

- Protective equipment:

Wear self-contained breathing apparatus.

See section 8.

- Additional information

Endangered containers in the surrounding area should be cooled with a water-hose.

Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Keep people at a distance and stay on the windward side.

- 6.2 Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.

Do not allow to enter drainage system, surface or ground water.

- 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Contaminated material has to be disposed as waste (see item 13).

- 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling

Open and handle container with care.

Ensure good ventilation/exhaustion at the workplace.

Do not breathe vapour. Avoid contact with skin, eyes and clothing.

Auf die Einhaltung des/der Arbeitsplatzgrenzwerte/s (AGW) und/oder sonstiger Grenzwerte achten.

- Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

- 7.2 Conditions for safe storage, including any incompatibilities

- **Storage** Store in cool, dry conditions in well sealed containers.- **Requirements to be met by storerooms and containers:** No special requirements.- **Information about storage in one common storage facility:** Not required.- **Further information about storage conditions:** None.- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- 8.1 Control parameters

- Components with critical values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- DNELs

102-71-6 Triethanolamine

Oral	DNEL (population)	13 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (worker)	6.3 mg/kg bw/day (Long-term, systemic effects)
	DNEL (population)	3.1 mg/kg bw/day (Long-term, systemic effects)
Inhalative	DNEL (worker)	5 mg/m ³ (Long-term - systemic and local effects)
	DNEL (population)	1.25 mg/m ³ (Long-term - systemic and local effects)

- PNECs

102-71-6 Triethanolamine

PNEC water	0.32 mg/l (freshwater)
	0.032 mg/l (Seawater)
PNEC	10 mg/l (sewage plant)
PNEC	0.151 mg/kg dw (soil)
PNEC sediment	1.7 mg/kg dw (freshwater)
	0.17 mg/kg dw (Seawater)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- 8.2 Exposure controls

- Personal protective equipment

- General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Gases, fumes and aerosols should not be inhaled.

- **Breathing equipment:** Short term filter device:

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- Protection of hands:

Protective gloves.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- 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.

- Eye protection: Safety glasses**- Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties**- General Information****- Appearance:****Form:** Fluid**Colour:** Clear**- Smell:** Odourless**- Odour threshold:** Not determined.**- pH-value:** Not determined.**- Melting point/freezing point:** Not determined**- Initial boiling point and boiling range:** > 100 °C**- Flash point:** > 100 °C**- Inflammability (solid, gaseous)** Not applicable.**- Decomposition temperature:** Not determined.**- Self-inflammability:** Product is not selfigniting.**- Explosive properties:** Product is not potentially explosive**- Critical values for explosion:****Lower:** Not determined.**Upper:** Not determined.**- Vapour pressure:** Not determined.**- Density at 20 °C** 1.04 g/cm³**- Relative density** Not determined.**- Vapour density** Not determined.**- Evaporation rate** Not determined.**- Solubility in / Miscibility with****Water:** Fully miscible**- Partition coefficient: n-octanol/water:** Not determined.

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- | | |
|--------------------------------|--|
| - Viscosity: | |
| dynamic: | Not determined. |
| kinematic: | Not determined. |
| - 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** strong oxidizing agents
- **10.6 Hazardous decomposition products:**
Formation of carbon monoxide and carbon dioxide in case of fire.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

102-71-6 Triethanolamine

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Slight irritant, but not sufficient to trigger an EC label
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

102-71-6 Triethanolamine

LC 50 / 96 h	11,800 mg/l (<i>Pimephales promelas</i>)
EC 50 / 24 h	2,038 mg/l (<i>Daphnia magna</i>)
EC 50 / 72 h	512 mg/l (<i>Scenedesmus subspicatus</i>)

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- 12.2 Persistence and degradability**102-71-6 Triethanolamine**

DOC - Elimination 96 % (OECD 301 E)

Biodegradability 91 % (bacteria) (28 d, modif. Sturm-Test)

- 12.3 Bioaccumulative potential No further relevant information available.**- 12.4 Mobility in soil** No further relevant information available.**- Ecotoxicological effects:****- Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):****102-71-6 Triethanolamine**

EC 50 >1,000 mg/l (activated sludge (method OECD 209))

- Additional ecological information:**- General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**- 12.5 Results of PBT and vPvB assessment****- PBT:** Not applicable.**- vPvB:** Not applicable.**- 12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods**- Recommendation**

A used product should be recycled or used in other contexts, otherwise be handed over to an appropriate disposal site.

- Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

- Uncleaned packagings: Disposal must be made according to official regulations.**- Recommendation:**

After complete emptying and cleaning, send to be reconditioned or recycled.

Rented packaging: After optimal emptying, close immediately and return to the supplier without cleaning.

Care should be taken that no other materials get into the packaging.

Other containers: After complete emptying and cleaning, send to be reconditioned or recycled.

- Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

- 14.1 UN-Number**- ADR, IMDG, IATA**

Void

- 14.2 UN proper shipping name**- ADR, IMDG, IATA**

Void

- 14.3 Transport hazard class(es)**- ADR, IMDG, IATA****- Class**

Void

- 14.4 Packing group**- ADR, IMDG, IATA**

Void

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- 14.5 Environmental hazards:	Not applicable.
- Marine pollutant:	No
- 14.6 Special precautions for user	Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information:	Not dangerous according to the above specifications.
- UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning young persons must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

- **Department issuing data specification sheet:**

Stockmeier Chemie GmbH & Co.KG
Am Stadtholz 37

D - 3 3 6 0 9

B i e l e f e l d

Tel.: +49/521/3037-0

E-Mail: ehs-bielefeld@stockmeier.de

- **Abbreviations and acronyms:**

LEV: Local Exhaust Ventilation

RPE: Respiratory Protective Equipment

RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

ISO: International Organisation for Standardisation

DNEL: Derived No-Effect Level (REACH)

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PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

- * Data compared to the previous version altered.

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