

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 05.06.2023

Version number 104.02 (replaces version 104.01)

Revision: 05.06.2023

### 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

Wärmeträgerflüssigkeit für Solaranlagen

#### - 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:

This is an English-language document designed for the European region. For the emergency number and other country-specific data, please refer to the specific national versions of this safety data sheet.

Counselling Centre for Poisoning, Mainz

Tel. (+49) 61 31 / 19 240.

### 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.

- Determination of endocrine-disrupting properties Not applicable.

### SECTION 3: Composition/information on ingredients

#### - 3.2 Mixtures

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

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- <b>Dangerous components:</b>		
CAS: 25265-71-8 EINECS: 246-770-3 Reg.nr.: 01-2119456811-38	Dipropylene glycol (isomer unspecified) substance with a Community workplace exposure limit	50-100%
CAS: 102-71-6 EINECS: 203-049-8 Reg.nr.: 01-2119486482-31	Triethanolamine substance with a Community workplace exposure limit	≤2,5%
CAS: 3164-85-0 EINECS: 221-625-7	Potassium 2-Ethylhexanoate Hydrate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤2,5%

**- SVHC**

This preparation does not contain any substances of very high concern (SVHC) in a concentration of  $\geq 0.1$  % according to Regulation (EC) 1907/2006, Article 57.

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

## 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 (CO<sub>2</sub>)

**- 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.

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### 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.  
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/extraction 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

#### - 8.1 Control parameters

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

##### 25265-71-8 Dipropylene glycol (isomer unspecified)

AGW (Germany)	Long-term value: 100 E mg/m <sup>3</sup> 2(II);DFG, Y, 11
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##### 102-71-6 Triethanolamine

AGW (Germany)	Long-term value: 1 E mg/m <sup>3</sup> 1(I);DFG, Y
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#### - DNELs

##### 25265-71-8 Dipropylene glycol (isomer unspecified)

Inhalative	DNEL (worker)	238 mg/m <sup>3</sup> (Long-term, systemic effects)
	DNEL (population)	70 mg/m <sup>3</sup> (Long-term, systemic effects)

##### 102-71-6 Triethanolamine

Oral	DNEL (population)	3,3 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (worker)	7,5 mg/kg bw/day (Long-term, systemic effects)

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Inhalative	DNEL (population)	2,66 mg/kg bw/day (Long-term, systemic effects)
	DNEL (worker)	1 mg/m <sup>3</sup> (Long-term - local effects)
	DNEL (population)	0,4 mg/m <sup>3</sup> (Long-term - local effects)

**- PNECs****25265-71-8 Dipropylene glycol (isomer unspecified)**

PNEC water	0,01 mg/l (Seawater) 0,1 mg/l (water)
PNEC soil	0,0253 mg/l (sewage plant)
PNEC sediment	0,238 mg/kg (freshwater) 0,0238 mg/kg (Seawater)

**102-71-6 Triethanolamine**

PNEC	0,32 mg/l (freshwater) 0,032 mg/l (Seawater)
PNEC	0,151 mg/kg dw (soil)
PNEC sediment	1,7 mg/kg dw (freshwater) 0,17 mg/kg dw (Seawater)
PNEC STP	10 mg/l

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

**- 8.2 Exposure controls**

**- Appropriate engineering controls** No further data; see section 7.

**- Individual protection measures, such as 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:

**- Hand protection**

Protective gloves (EN 374).

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/face protection** Safety glasses

**- Body protection:** Protective work clothing.

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## SECTION 9: Physical and chemical properties

### - 9.1 Information on basic physical and chemical properties

#### - General Information

- Colour:	Clear
- Smell:	Odourless
- Odour threshold:	Not determined.
- Melting point/freezing point:	Not determined
- Boiling point or initial boiling point and boiling range	>100 °C
- Flammability	Not applicable.
- Lower and upper explosion limit	
- Lower:	Not determined.
- Upper:	Not determined.
- Flash point:	>100 °C
- Decomposition temperature:	Not determined.
- pH	Not determined.
- pH-value:	
- Viscosity:	
- Kinematic viscosity	Not determined.
- dynamic:	Not determined.
- Solubility	
- Water:	Fully miscible
- Partition coefficient n-octanol/water (log value)	Not determined.
- Vapour pressure at 20 °C:	23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
- Density and/or relative density	
- Density at 20 °C	1,04 g/cm <sup>3</sup>
- Relative density	Not determined.
- Vapour density	Not determined.

### - 9.2 Other information

- Appearance:	
- Form:	Fluid
- Important information on protection of health and environment, and on safety.	
- Self-inflammability:	Product is not selfigniting.
- Explosive properties:	Product is not potentially explosive
- Evaporation rate	Not determined.

### - Information with regard to physical hazard classes

- Explosives	Void
- Flammable gases	Void
- Aerosols	Void
- Oxidising gases	Void
- Gases under pressure	Void
- Flammable liquids	Void
- Flammable solids	Void
- Self-reactive substances and mixtures	Void
- Pyrophoric liquids	Void
- Pyrophoric solids	Void
- Self-heating substances and mixtures	Void

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- |  |      |
|--|------|
| - <b>Substances and mixtures, which emit flammable gases in contact with water</b> | Void |
| - <b>Oxidising liquids</b>   | Void |
| - <b>Oxidising solids</b>  | Void |
| - <b>Organic peroxides</b>   | Void |
| - <b>Corrosive to metals</b>   | Void |
| - <b>Desensitised explosives</b>   | Void |

### 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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

##### 25265-71-8 Dipropylene glycol (isomer unspecified)

Oral	LD50	14800 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)

##### 102-71-6 Triethanolamine

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

- **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.
- **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.
- **11.2 Information on other hazards**

#### - Endocrine disrupting properties

None of the ingredients is listed.

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## SECTION 12: Ecological information

### - 12.1 Toxicity

#### - Aquatic toxicity:

##### 25265-71-8 Dipropylene glycol (isomer unspecified)

LC 50 / 96 h	>10000 mg/l (Pimephales promelas)
EC 50 / 48 h	>10000 mg/l (Daphnia magna)
EC 50 / 72 h	>100 mg/l (Desmodesmus subspicatus) (OECD 201)
EC 10 / 18 h	>1000 mg/l (Pseudokirchneriella subcapitata) (UBA)

##### 102-71-6 Triethanolamine

LC 50 / 96 h	11800 mg/l (Pimephales promelas)
EC 50 / 24 h	2038 mg/l (Daphnia magna)
EC 50 / 72 h	512 mg/l (Scenedesmus subspicatus)

### - 12.2 Persistence and degradability

##### 25265-71-8 Dipropylene glycol (isomer unspecified)

Biodegradability	84 % (OECD 301 F)
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##### 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.

### - 12.5 Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

### - 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

### - 12.7 Other adverse effects

#### - Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):

##### 102-71-6 Triethanolamine

EC 50	>1000 mg/l (activated sludge (method OECD 209))
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#### - Additional ecological information:

- General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.

## 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.

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**- Recommendation:**

Empty containers completely and send them cleaned for reconditioning or recycling. Dispose of containers only in consultation with local authorities.

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 or ID number - ADR/RID/ADN, IMDG, IATA	Void
- 14.2 UN proper shipping name - ADR/RID/ADN, IMDG, IATA	Void
- 14.3 Transport hazard class(es) - ADR/RID/ADN, IMDG, IATA - Class	Void
- 14.4 Packing group - ADR/RID/ADN, IMDG, IATA	Void
- 14.5 Environmental hazards: - Marine pollutant:	Not applicable. No
- 14.6 Special precautions for user	Not applicable.
- 14.7 Maritime transport in bulk according to IMO instruments	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

- Directive 2012/18/EU

- Named dangerous substances - ANNEX I None of the ingredients is listed.

- LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

None of the ingredients is listed.

- REGULATION (EC) No 1907/2006 ANNEX XVII Not applicable.

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

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**- REGULATION (EU) 2019/1148****- Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**- National regulations****- Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

**- Other regulations, limitations and prohibitive regulations****- Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is listed.

**- 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.

This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

**- UFI market placements:****- 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.

H335 May cause respiratory irritation.

**- Department issuing data specification sheet:**

Stockmeier Chemie GmbH &amp; Co.KG

Am Stadtholz 37

D - 3 3 6 0 9

B i e l e f e l d

Tel.: +49 521 3037-381

E-Mail: ehs-bielefeld@stockmeier.de

**- Version number of previous version: 104.01****- Abbreviations and acronyms:**

LEV: Local Exhaust Ventilation

RPE: Respiratory Protective Equipment

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

ADR: Accord relatif au transport international 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)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

SVHC: Substance of Very High Concern

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SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

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

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- \* **Data compared to the previous version altered.**

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