

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2024

Version number 105.00 (replaces version 104.02)

Revision: 14.02.2024

* 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

- 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 following substances with non-hazardous additions.

- **Dangerous components:**

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%

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CAS: 102-71-6 EINECS: 203-049-8 Reg.nr.: 01-2119486482-31	Triethanolamine substance with a Community workplace exposure limit	≤2,5%
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- SVHC

This preparation does not contain any substances of very high concern (SVHC) in a concentration of ≥ 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 off 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

Cool endangered containers in the vicinity with a water spray jet.

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).

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Dispose of contaminated material as waste according to point 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 ³ 2(II);DFG, Y, 11
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102-71-6 Triethanolamine

AGW (Germany)	Long-term value: 1 E mg/m ³ 1(I);DFG, Y
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- DNELs**25265-71-8 Dipropylene glycol (isomer unspecified)**

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

102-71-6 Triethanolamine

Oral	DNEL (population)	3,3 mg/kg bw/day (Long-term, systemic effects)
	DNEL (worker)	7,5 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (population)	2,66 mg/kg bw/day (Long-term, systemic effects)
	DNEL (worker)	0,14 mg/cm ² (Long-term, local effects)
	DNEL (population)	0,07 mg/cm ² (Long-term, local effects)
	DNEL (worker)	1 mg/m ³ (Long-term, local effects)
Inhalative	DNEL (worker)	0,4 mg/m ³ (Long-term, local effects)
	DNEL (population)	

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

PNEC water	0,01 mg/l (Seawater)
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PNEC soil	0,1 mg/l (water)
PNEC sediment	0,0253 mg/l (sewage plant)
	0,238 mg/kg (freshwater)
	0,0238 mg/kg (Seawater)
102-71-6 Triethanolamine	
PNEC water	5,12 mg/l (intermittent releases)
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.

* SECTION 9: Physical and chemical properties

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

- **General Information**

- **Physical state**

Fluid

- **Colour:**

Clear

- **Smell:**

Odourless

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Not determined

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- 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 ³
- 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
- Substances and mixtures, which emit flammable gases in contact with water	Void
- Oxidising liquids	Void
- Oxidising solids	Void
- Organic peroxides	Void
- Corrosive to metals	Void

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- Desensitised explosives

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 oxidising 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.

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 (Desmodemus subspicatus) (OECD 201)

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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)
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))
- 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

Dispose of used product for recycling or, if possible, for another use. Otherwise, dispose of it in an authorised waste disposal facility.

- Waste disposal key number:

Since 1 January 1999, the waste code numbers have not only been product-related but essentially application-related. The waste code number valid for the application can be taken from the European Waste Catalogue.

- Uncleaned packagings: Disposal in accordance with official regulations.

- Recommendation:

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

Level o p m e n t : After optimal emptying, immediately return to the supplier tightly closed and without cleaning. Make sure that no foreign matter gets into the packaging!

Other containers: Empty completely and clean for reconditioning or reprocessing.

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

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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.

- 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.

- 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

- Other regulations, limitations and prohibitive regulations

- Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

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- **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.

- **Registration-Number**

- **Relevant phrases**

Complete wording of hazard statements and risk phrases (H-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.

- **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 3037-381

E-Mail: ehs-bielefeld@stockmeier.de

- **Version number of previous version:** 104.02

- **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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

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