

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 29.11.2021

Version number 107

Revision: 11.05.2020

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

### - 1.1 Product identifier

- Trade name **STAUBCO HEAT N -20 °C / WS**

- Article number: 1002956701003

- UFI: WQ59-H0JM-K008-A7X0

### - 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 coolant

### - 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

Acute Tox. 4 H302 Harmful if swallowed.

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

### - 2.2 Label elements

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

The product is classified and labelled according to the CLP regulation.

#### - Hazard pictograms



GHS07 GHS08

#### - Signal word Warning

#### - Hazard-determining components of labelling:

ethane-1,2-diol

#### - Hazard statements

H302 Harmful if swallowed.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

#### - Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

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- P270 Do not eat, drink or smoke when using this product.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P330 Rinse mouth.  
 P314 Get medical advice/attention if you feel unwell.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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 following components  
 Mixture of the substances listed below with harmless additions

- **Dangerous components:**

|   |                 |                                     |        |
|---|-----------------|-------------------------------------|--------|
| CAS: 107-21-1<br>EINECS: 203-473-3<br>Index number: 603-027-00-1<br>Reg.nr.: 01-2119456816-28 | ethane-1,2-diol | STOT RE 2, H373; Acute Tox. 4, H302 | 25-50% |
|---|-----------------|-------------------------------------|--------|

- **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:**  
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
 In case of unconsciousness bring patient into stable side position for transport.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
 Remove contaminated clothing immediately. Wash affected areas with plenty of water und soap. If irritation continues, contact a doctor.
- **After eye contact**  
 Use eye protection.  
 Rinse immediately opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**  
 Do not induce vomiting.  
 Instantly call for doctor.
- **Information for doctor**  
 Maintain good diuresis; monitor renal function, electrolyte and acid-base balance. Early administration of ethanol may counteract the toxicity of ethylene glycol (metabolic acidosis and renal damage).  
 Supportive measures required. Treatment depends on physician's assessment and patient's condition.
- **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.

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### 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:**  
See section 8.  
Wear full protective suit with self-contained breathing apparatus.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Endangered containers in the surrounding area should be cooled with a water-hose.

### \* SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid eye and skin contact.  
Ensure adequate ventilation
- **6.2 Environmental precautions:**  
Dilute with much water.  
Do not allow to enter drainage system, surface or ground water.  
If large amounts are released, the authorities must be informed.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
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**  
Ensure good ventilation/exhaustion at the workplace.  
Avoid contact with eyes or skin.  
Avoid contact and inhalation of sprays/vapours.  
Ensure good ventilation/exhaustion at the workplace. Avoid repeated or long-term skin contact.  
Prevent formation of aerosols.
- **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:**  
Observe official regulations on storage and handling of water hazardous substances  
Store in original containers or in PE-containers.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:** None.

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- 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

## - 8.1 Control parameters

- **Additional information about design of technical systems:** No further data; see item 7.- **Components with critical values that require monitoring at the workplace:****107-21-1 ethane-1,2-diol**

|                        |  |
|------------------------|--|
| IOELV (European Union) | Short-term value: 104 mg/m <sup>3</sup> , 40 ppm<br>Long-term value: 52 mg/m <sup>3</sup> , 20 ppm<br>Skin |
|------------------------|--|

- **DNELs****107-21-1 ethane-1,2-diol**

|            |                   |  |
|------------|-------------------|--|
| Dermal     | DNEL (population) | 53 mg/kg bw/day (Long-term, systemic effects)    |
|            | DNEL (worker)     | 106 mg/kg bw/day (Long-term, systemic effects)   |
| Inhalative | DNEL (population) | 7 mg/m <sup>3</sup> (Long-term - local effects)  |
|            | DNEL (worker)     | 35 mg/m <sup>3</sup> (Long-term - local effects) |

- **PNECs****107-21-1 ethane-1,2-diol**

|               |                            |
|---------------|----------------------------|
| PNEC          | 199.5 mg/l (380)           |
|               | 1.53 mg/kg dw (soil)       |
| PNEC aqua     | 10 mg/l (freshwater)       |
|               | 1 mg/l (Seawater)          |
| PNEC sediment | 20.9 mg/kg dw (freshwater) |
|               | 37 mg/kg (freshwater)      |
|               | 3.7 mg/kg (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**

Keep away from food, beverages and fodder.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

- **Breathing equipment:** Use breathing protection in case of insufficient ventilation.- **Recommended filter device for short term use:** Combination filter A-P2- **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**

Butyl rubber, BR

Nitrile rubber, NBR

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

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checked prior to the application.

Nitrile rubber, NBR, recommended thickness of the material:  $\geq 0.4$  mm, penetration time:  $\geq$  **min.**Chloroprene rubber, CR, recommended thickness of the material:  $\geq 0.7$  mm, penetration time:  $\geq 480$  min.**- 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 recommended during refilling.**- Body protection:**

Standard protective clothing. Chemical resistant safety-shoes or boots. If skin contact is possible, wear impenetrable protective clothing against this solvent.

### SECTION 9: Physical and chemical properties

**- 9.1 Information on basic physical and chemical properties****- General Information****- Appearance:****Form:** Fluid**Colour:** Green**- Smell:** Characteristic**- Odour threshold:** Not determined.**- pH-value:** Not determined.**- pH-value at 20 °C:** ca.8,5**- Melting point/freezing point:** Not determined**- Initial boiling point and boiling range:**  $> 100$  °C**- Flash point:**  $> 110$  °C**- Inflammability (solid, gaseous)** Not applicable.**- Ignition temperature:** 398 °C  
(lowest level for individual components)**- Decomposition temperature:** Not determined.**- Self-inflammability:** Product is not selfigniting.**- Explosive properties:** Product is not potentially explosive**- Critical values for explosion:****Lower:** 3.0 Vol %**Upper:** 43.0 Vol %  
(Higher and lower level for individual components)**- Vapour pressure:** Not determined.**- Density at 20 °C**  $\sim 1.05$  g/cm<sup>3</sup>**- 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.**- Viscosity:**  
**dynamic:** Not determined.

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|                   |                 |
|-------------------|-----------------|
| <b>kinematic:</b> | Not determined. |
|-------------------|-----------------|

|                                |  |
|--------------------------------|--|
| <b>- 9.2 Other information</b> | 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 oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Oxidizing agents  
bases
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful if swallowed.

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

#### 107-21-1 ethane-1,2-diol

|            |       |                        |
|------------|-------|------------------------|
| Oral       | LD50  | 7712 mg/kg (rat)       |
| Dermal     | LD50  | > 3500 mg/kg (mouse)   |
| Inhalative | LC 50 | > 2.5 mg/l (rat) (6 h) |

- **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.
- **Additional toxicological information:**
- **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**  
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

#### 107-21-1 ethane-1,2-diol

|              |  |
|--------------|--|
| EC 50 / 48 h | > 100 mg/l ( <i>Daphnia magna</i> )                          |
| EC 50 / 96 h | 6500 - 13000 mg/l ( <i>Pseudokirchneriella subcapitata</i> ) |

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|              |   |
|--------------|---|
| LC 50        | > 10000 mg/l ( <i>Leuciscus idus</i> )<br>18000 mg/l ( <i>Oncorhynchus mykiss</i> ) |
| LC 50 / 96 h | > 10000 mg/l ( <i>Daphnia magna</i> )<br>72860 mg/l ( <i>Pimephales promelas</i> )  |

**- 12.2 Persistence and degradability****107-21-1 ethane-1,2-diol**

Biolog. Abbaubarkeit 90 - 100 % (OECD 301A) (10 h, OECD 301 A / ISO 7827)

**- 12.3 Bioaccumulative potential** No further relevant information available.**- 12.4 Mobility in soil** No further relevant information available.**- Ecotoxic effects:****- Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):****107-21-1 ethane-1,2-diol**

EC 20 / 0,5 h &gt; 1995 mg/l (activated sludge (method OECD 209))

EC 50 / 17 h 10000 mg/l (*Pseudomonas putida*)**- 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**

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

**- Recommendation**

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

**- 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/RID, IMDG, IATA**

Void

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

Void

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|   |  |
|---|--|
| - 14.3 Transport hazard class(es)   |  |
| - ADR/RID, IMDG, IATA   |  |
| - Class   | Void   |
| - 14.4 Packing group  |  |
| - ADR/RID, IMDG, IATA   | Void   |
| - 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

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS07 GHS08

- Signal word Warning

- Hazard-determining components of labelling:

ethane-1,2-diol

- Hazard statements

H302 Harmful if swallowed.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

- Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Directive 2012/18/EU

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

- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

- 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.

**- UFI market placements:**

Germany, Bulgaria, Denmark, ESE, Finland, France, Greece, Ireland, ISE, Croatia, Latvia, Lithuania, Malta, Netherland, Norway, Germany, Poland, Portugal, Romania, Sweden, Slovakia, Slovenia, Spain, Czechia, Cyprus

**- 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.

**- 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

**- 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: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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