

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

Printing date 05.04.2023

Version number 108.52 (replaces version 108.51)

Revision: 31.03.2023

*** 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:** 1002956712002
- **UFI:** 94YC-D19R-800U-G263
- **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 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 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28	ethane-1,2-diol	STOT RE 2, H373; Acute Tox. 4, H302	25-50%
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- 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:

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

A good diuresis to maintain; check of the kidney function, electrolyte household. Early administration of ethanol can counteract the toxic effects of ethylene glycol (metabolic acidosis and kidney damages). Supporting measures required. Treatment is subject to both the judgement of the doctor and the patient's condition.

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

No further relevant information available.

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- **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:**
 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

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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.
- **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:

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

AGW (Germany)	Long-term value: 26 mg/m ³ , 10 ppm 2(l);DFG, EU, H, Y, 11
IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin

- DNELs

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

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

- PNECs

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

PNEC water	10 mg/l (intermittent releases) 10 mg/l (freshwater) 1 mg/l (marine water)
PNEC sediment	20,9 mg/kg dw (freshwater)
PNEC sediment	37 mg/kg (freshwater) 3,7 mg/kg (marine water)
PNEC STP	199,5 mg/l (sewage plant)
PNEC soil	1,53 mg/kg (soil)

- 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

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

- Hand protection

Protective gloves (EN 374).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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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 checked prior to the application.

Nitrile rubber, NBR, recommended thickness of the material: $\geq 0,4$ mm, penetration time: ≥ 480 min.

Chloroprene rubber, CR, recommended thickness of the material: $\geq 0,7$ mm, penetration time: ≥ 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/face protection Safety glasses recommended during refilling.

- Body protection:

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

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Colour:	Green
- Smell:	Characteristic
- 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:	3 Vol %
- Upper:	43 Vol %
- Flash point:	>110 °C
- Auto-ignition temperature:	398 °C
- Decomposition temperature:	Not determined.
- pH	Not determined.
- pH-value at 20 °C:	ca.8,5
- Viscosity:	
- Kinematic viscosity	Not determined.
- Kinematic viscosity	
- 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)
- Vapour pressure:	
- Density and/or relative density	
- Density at 20 °C	1,05 g/cm ³

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- 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
- 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 oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Oxidising agent
bases
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
Harmful if swallowed.

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- LD/LC50 values that are relevant for classification:**107-21-1 ethane-1,2-diol**

Dermal	LD50	>3.500 mg/kg (mouse) 9.530 mg/kg (rabbit)
Inhalative	LC 50	>2,5 mg/l (rat) (6 h)

- **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**
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.

- 11.2 Information on other hazards**- Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**- 12.1 Toxicity****- Aquatic toxicity:****107-21-1 ethane-1,2-diol**

LC 50 / 96 h	18.000 mg/l (Oncorhynchus mykiss) 72.860 mg/l (Pimephales promelas)
EC 50 / 48 h	>100 mg/l (Daphnia magna) >10.000 mg/l (Algae)
EC 50 / 96 h	6.500-13.000 mg/l (Selenastrum capricornutum)

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

Biodegradability 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.**- 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):****107-21-1 ethane-1,2-diol**

EC 20 / 0,5 h >1.995 mg/l (activated sludge (method OECD 209))

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

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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 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.

- 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

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

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- 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.

- 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 is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

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- UFI market placements:

Germany, Bulgaria, Denmark, DKE, ESE, European Union, Finland, SFS, France, Greece, Ireland, ISE, Croatia, Latvia, FL, Lithuania, LTE, 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.

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

- Department issuing data specification sheet:

Stockmeier Chemie GmbH & Co.KG

Am Stadtholz 37

D - 3 3 6 0 9

B i e I e f e I d

Tel.: +49 521 3037-381

E-Mail: ehs-bielefeld@stockmeier.de

- Date of previous version: 03.01.2023

- Version number of previous version: 108.51

- 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

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.

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