

# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

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

- **1.1 Product identifier**
- **Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**
- **Article number: MN4013**
- **UFI: NJ3C-K0EV-800E-1RX3**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Technical function** Antifreeze agent
- **Application of the substance / the mixture** Heat transfer fluid
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
UAB "SCT Lubricants"  
Silutes Pl. 119  
LIT-95112 KLAIPEDA  
LITHUANIA  
renata@sct.lt
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**  
Members of the public seeking specific information on poisons should contact:  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

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



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **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:**  
ethanediol
- **Hazard statements**  
H302 Harmful if swallowed.  
H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

(Contd. on page 2)



## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec

(Contd. of page 1)

**Precautionary statements**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read carefully and follow all instructions.
- 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.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 Rinse mouth.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P314 Get medical advice/attention if you feel unwell.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- 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 substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 107-21-1	ethanediol	Acute Tox. 4, H302	50–53%
EINECS: 203-473-3			

**Not dangerous substances**

CAS: 7732-18-5	water, distilled, conductivity or of similar purity		47–50%
EINECS: 231-791-2			
CAS: 93918-10-6	3,5,5-trimethylhexanoate		0.6–0.8%
EINECS: 299-890-3	Skin Corr. 1, H314; Eye Dam. 1, H318; Acute Tox. 4, H302		

- **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 information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Generally the product does not irritate the skin.

**After eye contact:**

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

- **After swallowing:** Call for a doctor immediately.

**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.

(Contd. on page 3)



# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 2)

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
  - CO2. Do not use water.
  - Use fire extinguishing methods suitable to surrounding conditions.
  - Foam
  - Fire-extinguishing powder
  - Sand
- **For safety reasons unsuitable extinguishing agents:** Water
- **5.2 Special hazards arising from the substance or mixture**
  - During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Mount respiratory protective device.
  - Ensure adequate ventilation
  - Particular danger of slipping on leaked/spilled product.
  - Wear protective clothing.
- **6.2 Environmental precautions:**
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ 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).
  - Dispose contaminated material as waste according to section 13.
  - Ensure adequate ventilation.
- **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 disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** 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.

(Contd. on page 4)

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 3)

### SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**107-21-1 ethanediol (52.25%)**

OEL	Short-term value: 40 mg/m <sup>3</sup> , 104 ppm
	Long-term value: 52 mg/m <sup>3</sup> , 20 ppm
	Sk, IOELV

**111-46-6 2,2'-oxybisethanol (8.25%)**

OEL	Long-term value: 100 mg/m <sup>3</sup> , 23 ppm
-----	---

· **Additional information:** The lists valid during the making 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 foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**



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/face protection**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

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

· **General Information**

· **Physical state**

Fluid

(Contd. on page 5)

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 4)

· <b>Colour:</b>	Green
· <b>Odour:</b>	Product specific
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	-40 °C
· <b>Boiling point or initial boiling point and boiling range</b>	<115 °C
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.085 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Liquid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	47–50 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <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

(Contd. on page 6)

# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 5)

- |                                  |      |
|----------------------------------|------|
| · <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** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide  
Aldehyde  
Poisonous gases/vapours  
Carbon dioxide

## 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 relevant for classification:**

**107-21-1 ethanediol**

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,530 mg/kg (rabbit)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **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:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **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.

(Contd. on page 7)

# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 6)

- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- |                                   |   |
|-----------------------------------|---|
| · <b>European waste catalogue</b> |   |
| HP5                               | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP6                               | Acute Toxicity  |
- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- |   |                 |
|---|-----------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>                             | not regulated   |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>                            | not regulated   |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | not regulated   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | not regulated   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> </ul>  | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> </ul>  | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>14.7 Maritime transport in bulk according to IMO instruments</b></li> </ul>                                   | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>   | not regulated   |

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

(Contd. on page 8)



# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.05.2024

Version number 3 (replaces version 2)

Revision: 24.05.2024

**Trade name: MANNOL 4013 Antifreeze AG13 (-40) Hightec**

(Contd. of page 7)

- **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**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **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.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

- **Department issuing SDS:** Product safety department.

- **Contact:** Mrs. Zubaite

- **Date of previous version:** 15.05.2024

- **Version number of previous version:** 2

- **Abbreviations and acronyms:**

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 Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

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.**