

Safety data sheet

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

Printing date 27.03.2026

Version number 1

Revision: 27.03.2026

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

- **1.1 Product identifier**
- **Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife**
- **Article number: MN4012**
- **UFI: VF3C-20RF-X00X-DEC1**
- **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
Lubricant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
UAB "SCT Lubricants"
Silutes Pl. 119
LIT-95112 KLAIPEDA
LITHUANIA
renata.z@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.
Eye Irrit. 2 H319 Causes serious eye irritation.

- **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.

(Contd. on page 2)

Safety data sheet

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Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 1)

H319 Causes serious eye irritation.

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

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 eye protection / face 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 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28	ethanediol ----- STOT RE 2, H373; Acute Tox. 4, H302	50–53%
CAS: 93918-10-6 EINECS: 299-890-3 Reg.nr.: 01-2120747787-36	3,5,5-trimethylhexanoate ----- Skin Corr. 1, H314; Eye Dam. 1, H318; Acute Tox. 4, H302	1.5–1.8%

Not dangerous substances

CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	45–50%
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- **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. If symptoms persist, 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.

(Contd. on page 3)



Safety data sheet

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Version number 1

Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 2)

- **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:**
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:** Keep container tightly sealed.
- **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 27.03.2026

Version number 1

Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(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 ³ , 104 ppm Long-term value: 52 mg/m ³ , 20 ppm Sk, IOELV
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· **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.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

· **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**

Liquid

(Contd. on page 5)



Safety data sheet

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

Printing date 27.03.2026

Version number 1

Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 4)

· Colour:	Red
· Odour:	Product specific
· Odour threshold:	Not determined
· Melting point/freezing point:	-40 °C
· Boiling point or initial boiling point and boiling range	>105 °C
· Flammability	Not applicable
· Lower and upper explosion limit	
· Lower:	Not determined
· Upper:	Not determined
· Flash point:	Not applicable
· Decomposition temperature:	Not determined
· pH	Not determined
· Viscosity:	
· Kinematic viscosity	Not determined
· Dynamic:	Not determined
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined
· Vapour pressure:	Not determined
· Density and/or relative density	
· Density at 20 °C:	>1.06 g/cm ³
· Relative density	Not determined
· Vapour density	Not determined

· 9.2 Other information	
· Appearance:	
· Form:	Liquid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Water:	45–50 %
· Change in condition	
· 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

(Contd. on page 6)

Safety data sheet

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

Printing date 27.03.2026

Version number 1

Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 5)

- | | |
|----------------------------------|------|
| · 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** 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:**

ATE (Acute Toxicity Estimates)

Oral	LD50	45,455 mg/kg
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107-21-1 ethanediol

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

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **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.

(Contd. on page 7)



Safety data sheet

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

Printing date 27.03.2026

Version number 1

Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 6)

- **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**
- **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.
- | | |
|-----------------------------------|---|
| · European waste catalogue | |
| 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

- | | |
|---|----------------|
| · 14.1 UN number or ID number | |
| · ADR, ADN, IMDG, IATA | not regulated |
| · 14.2 UN proper shipping name | |
| · ADR, ADN, IMDG, IATA | not regulated |
| · 14.3 Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | not regulated |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | not regulated |
| · 14.5 Environmental hazards: | Not applicable |
| · 14.6 Special precautions for user | Not applicable |
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable |
| · UN "Model Regulation": | not regulated |

(Contd. on page 8)

Safety data sheet

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Revision: 27.03.2026

Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

(Contd. of page 7)

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

· **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

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

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

· **Contact:** Mrs. Zubaite

· **Date of previous version:** 24.02.2026

· **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

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1: Skin corrosion/irritation – Category 1

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

(Contd. on page 9)



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

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Trade name: MANNOL 4012 Antifreeze AF12+ (-40) Longlife

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

(Contd. of page 8)

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

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