

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Kühlerfrostschutz KFS 12-72**

Version: 3 Latest revision: 20. 09. 2023 Date of issue: 13. 11. 2017 Page: 1/(13)

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

1.1. Product identifier:

A.Z. Meisterteile Kühlerfrostschutz KFS 12-72

UFI: 98C1-H0AU-800E-98S6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: antifreeze coolant concentrate

Uses advised against: application other than the above.

1.3. Details of the supplier of the safety data sheet:

Trader identification:

UNIX Autó és Alkatrészkereskedelmi Kft.

H-1139 Budapest, Frangepán u. 55-57.

Tel.: +36 1 270 8700

Fax: +36 1 270 8799

E-mail: cs@unixauto.com

Technical information:

UNIX Autó és Alkatrészkereskedelmi Kft.

H-1139 Budapest, Frangepán u. 55-57.

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Responsible for SDS:

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Tel.: +36 1 270 8700

Fax: +36 1 270 8799

E-mail: cs@unixauto.com

1.4. Emergency telephone number

Emergency telephone (on workdays: 07-15²⁰ h (CET)): +36 1 270 8700

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián út 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Class and Category: Hazard statement:

Acute Tox. 4

H302 Harmful if swallowed.

STOT RE 2

H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

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2.2. Label elements

Product identification: Trade name: **A.Z. Meisterteile Kühlerfrostschutz KFS 12-72**

Hazardous components: Ethanediol

GHS Pictogram:



Signal word: **Warning**

Hazard statement:

H302 Harmful if swallowed
H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Supplemental hazard information: -

Precautionary statements – General:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Precautionary statements - Prevention

P260 Do not breathe mist, vapours, spray.
P264 Wash affected skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Precautionary statements - Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P314 Get medical advice/attention if you feel unwell.

Precautionary statements – Storage: -

Precautionary statements - Disposal

P501 Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger and child-resistant fastening: Not required.

Transport classification: see section 14.

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2.3. Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006, at a concentration of 0.1% or more.

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical description: Ethylene glycol with additives, colorific.

Component(s) / Hazardous component(s):

Name	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Ethanediol* REACH Registr. Nr.: 01-2119456816-28	203-473-3	107-21-1	Acute Tox. 4 STOT RE 2	H302 H373	80 - 98
Methyl-1H-benzotriazole** REACH Registr. Nr.: 01-2119979081-35	249-596-6	29385-43-1	Acute Tox. 4 Aquatic Chronic 2	H302 H411	0.1 - <0.25
Potassium - (2-benzothiazylthio)acetate REACH Registr. Nr.: *** Not required	-	-	Acute Tox. 4 Eye Dam. 1 Repr. 2 Aquatic Chronic 3	H302 H318 H361 H412	0.1 - <0.25

* Estimated acute toxicity values: oral, ATE: 1600 mg/kg

** Estimated acute toxicity values: oral, ATE: 720 mg/kg

*** Estimated acute toxicity values: oral, ATE: 500 mg/kg

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove exposed person to fresh air if adverse effects are observed. If breathing has stopped, apply artificial respiration. If breathing is labored, administer oxygen. Get medical attention.

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Skin contact: Wash immediately with soap and water. Remove contaminated clothing. If symptoms persist (redness, swelling, pain, blister) get medical attention.

Eye contact: Flush immediately with plenty of running water for at least 10-15 minutes, holding the eyelids open. Rest the eyes at least 30 minutes. If symptoms persist (redness, burning pain, dim-red sight, swelling) get medical attention.

Ingestion: Wash out the mouth immediately with water. Give plenty of water. Do not induce vomiting! If vomiting occurs spontaneously, lower head below waist to prevent fluid entering the lungs. Get medical attention.

Protection of first-aid person: No individual specifications.

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

Harmful if swallowed.

May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Cramps. Dizziness. Nausea, vomiting. Stomach ache. Edema.

May cause slight irritation: transient burning effects, mild redness and/or dim sight.

Absorbs through the skin.

Symptoms of glycol poisoning: breathing disorders, paralysis of central nervous system and in case of severe toxicosis may be fatal.

4.3. Indication of any immediate medical attention and special treatment needed

If swallowed, immediate medical attention is required: 2 hours, gastrolavage, etc.

SECTION 5: Fire-fighting measures

Fire hazards:

Combustible.

5.1. Extinguishing media

Suitable extinguishing media:

According to the existing fire-fighting regulations, powder, alcohol resistant foam, water, CO₂.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

On burning hazardous gases and vapours (carbon-dioxide, carbon-monoxide, other organic compounds, e.g. ketones, aldehydes) can be formed.

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5.3. Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations. Self-contained breathing apparatus.

Further information:

Cool containers and surroundings exposed to fire with water spray.

Use water spray to reduce the amount of vapour or to prevent the dispersion of vapour clouds.

Vapours of ethanediol are heavier than air and form explosive mixture with air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

6.2. Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid.

Notify relevant authority.

6.3. Methods and material for containment and cleaning up

On soil: Exclude source of ignition. Adequate ventilation required in enclosed areas. Recover free liquid by pumping. Contain spilled liquid with sand, earth, ground limestone powder, or other suitable absorbents. Dispose of according to local regulations. Clean up with large amount of water the contaminated area.

On water: Soluble in water. Notify local authorities according to regulations.

6.4. Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep general measures applied for normal operations with chemicals and flammable liquids. Adequate ventilation required.

Keep material away from and open flame. No smoking.

Take precautionary measures against static discharges.

Avoid contact with skin and eyes, inhalation of vapours.

Wash hands before breaks and at end of work.

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Take off contaminated clothing and wash it before reuse.

Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.

Handling temperature: max. 40°C

7.2. Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of chemicals and flammable liquids.

Store in cool, dry, well-ventilated area, in original, tightly closed containers.

Keep out of the reach of children. Keep away from food, drink.

Unsuitable storage materials are: not recommended using plated or galvanized iron or steel containers.

Storage temperature: no data

7.3. Specific end use(s)

Antifreeze coolant concentrate.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters:

EU (2000/39/EC)

<i>Ethandiol:</i>	Eight hours:	52 mg/m ³	20 ppm
	Short-term:	104 mg/m ³	40 ppm

8.2. Exposure controls

Engineering control measures:

Not required.

Personal protection:

(a) Eye/face protection Where splashing is possible, wear tightly fitting goggles (EN 166).

(b) Skin protection

(i) Hand protection Protective gloves (chemical resistant) (EN 374).

Material: neoprene, butyl rubber, nitrile rubber or Viton. Layer thickness: >0.38 mm. Breakthrough time: >480 minutes. PK power level: 6

Note: Manufacturer's directions for use and the conditions of application should be observed.

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|----------------------------|---|
| (ii) Other | Protective clothing, possibly chemical resistant protective boots. |
| (c) Respiratory protection | Under normal use conditions, respirator is not usually required. Use approved breathing apparatus if vapours, mists and aerosols are generated or recommended exposure limits are exceeded. |
| (d) Thermal hazards | If necessary, heat-resistant protective clothing and protective gloves. |

Environmental exposure controls:
Do not discharge into drains/surface waters/groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- | | |
|--|---|
| a) Physical state: | liquid |
| b) Colour: | light red, slightly opalescent |
| c) Odour: | mild, sweetish |
| d) Melting point/freezing point (Pour point): | $\leq -36.4^{\circ}\text{C}$ (50 Vol %) |
| e) Boiling point or initial boiling point and boiling range: | $\geq 163^{\circ}\text{C}$ |
| f) Flammability: | combustible |
| g) Lower and upper explosion limit: | 3 / 15 Vol/% |
| h) Flash point (Pensky-Martens): | 122°C |
| i) Auto-ignition temperature: | 398°C |
| j) Decomposition temperature: | not available |
| k) pH (20°C): | typ. 8.5 |
| l) Kinematic viscosity: | not available |
| m) Solubility | |
| Solubility in water: | soluble in all proportion |
| Solubility in other solvents: | not available |
| n) Partition coefficient n-octanol/water (log value): | not available |
| o) Vapour pressure at 20°C: | not available |
| p) Density and/or relative density at 20°C: | typ. 1.119 g/cm^3 |
| q) Relative vapour density: | not available |
| r) Particle characteristics: | not available |

9.2. Other information

- | | |
|-----------------|-------------------------|
| Ignition point: | $> 200^{\circ}\text{C}$ |
|-----------------|-------------------------|

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SECTION 10: Stability and reactivity

10.1. Reactivity	Dangerous reactivity not known.
10.2. Chemical stability	No decomposition if stored and handled properly.
10.3. Possibility of hazardous reactions	Not known.
10.4. Conditions to avoid	Direct heat or ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidizing agents. Strong acids. Nitrates. Peroxides. Chlorates.
10.6. Hazardous decomposition products	No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5.
Nota:	Vapours of ethanediol heavier than air and form explosive mixture with air.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: Harmful if swallowed.

Component:

Ethanediol (CAS: 107-21-1)

Oral:	LD (cat):	1600	mg/kg
Dermal:	LD ₅₀ (mouse):	>3500	mg/kg
Inhalation (aerosol):	LD ₅₀ (rat):	>2.5	mg/l/6 h

Methyl-1H- benzotriazole (CAS: 29385-43-1)

Oral:	LD ₅₀ (rat):	720	mg/kg
Dermal:	LD ₅₀ (rabbit):	>2000	mg/kg (24 h)

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 kidneys through prolonged or repeated exposure if swallowed.

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Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 12: Ecological information

12.1. Toxicity No data available for the preparation.

Component:

Ethanediol (CAS: 107-21-1)

Fish (Pimephales promelas):	LC ₅₀	72860 mg/L/96 h	(literature data)
Daphnia:	EC ₅₀	> 100 mg/L/48 h	(literature data)

Methyl-1H- benzotriazole (CAS: 29385-43-1)

Fish (Danio rerio):	LC ₅₀	180 mg/L/96 h	
Crustacea (Arctia tonsa):	EC ₅₀	55 mg/L/48 h	
Crustacea (Daphnia galeata):	EC ₅₀	8.58 mg/L/48 h	
Crustacea (Daphnia galeata):	EC ₁₀	0.4 mg/L/21 days	
Algae (Pseudokirchneriella subcapitata):	EC ₅₀	75 mg/L/72 h	

12.2. Persistence and degradability

Biodegradability:

Ethanediol (CAS: 107-21-1) 90 % (10 days, OECD 301 A)
Readily degradable.

12.3. Bioaccumulative potential

Ethanediol (CAS: 107-21-1) No data available for the product.
Log Kow: -1.36.

12.4. Mobility in soil

Mobility in water: Large spills to soil can contaminate groundwater.
Soluble in water.

12.5. Results of PBT and vPvB assessment

Does not contain PBT and vPvB substances, at a concentration of 0.1% or more.

12.6. Endocrine disrupting properties

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

12.7. Other adverse effects

Biological oxygen demand:	<i>Ethanediol:</i>	BOI ₅ :	0.81 g/g	(Literature data)
Chemical oxygen demand:	<i>Ethanediol:</i>	KOI:	1.29 g/g	(Literature data)

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Effects on activated sludge:	The product can be disposed in wastewater treatment plant – biological stage of treatment (activation) after dilution in the ratio 1:1000 and after approval of relevant authority and manager of the sewer.
Heavy metal content:	None.
PCT, PCB and other chlorinated hydrocarbons:	None.
Environmental effects:	Do not empty into waterways without disposal.
Water hazard class (German):	WGK 1 (Classification by AwSV)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

Waste Identification Code: 16 01 14*

Antifreeze fluids containing dangerous substances.

Disposal must be in compliance with national and local regulations.

Recommended waste treatment method: incineration

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Waste Identification Code: 15 01 10*

Packaging containing residues of or contaminated by dangerous substances.

Disposal must be in compliance with national and local regulations.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

SECTION 14: Transport information

Land transport:

Road/ Railway

ADR/RID:

Not classified.

14.1. UN number or ID number

Not classified.

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14.2. UN proper shipping name	Not classified.
14.3. Transport hazard class(es)	Not classified.
14.4. Packing group	Not classified.
14.5. Environmental hazards	Not classified.
14.6. Special precautions for user	Not classified.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable

Waterways:

Inland waterways/ Sea transport ADN/IMDG: Not apply to the product.

Air transport: ICAO / IATA: Not apply to the product.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.
Seveso category: not classified.

15.2. Chemical safety assessment.
not available

SECTION 16: Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 (CLP)

Acute Tox. 4	H302	calculation method
STOT RE 2	H373	calculation method

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The full text of each relevant H- phrase and Hazard classes and cat. in Section 3.:

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to kidneys through prolonged or repeated exposure if swallowed.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Acute Tox. 4	Acute toxicity Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Repr. 2	Reproductive toxicity Category 2
STOT RE 2	Specific target organ toxicity – repeated exposure Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, Chronic Category 3

Legend:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labelling
CAS	Chemical Abstracts Service
CLP	Classification and Labelling
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec _x	Effective Concentration x%
ErC ₅₀	EC ₅₀ in terms of reduction of growth rate
Ed _x	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario

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IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LCx	Lethal Concentration x%
LDx	Lethal Dose x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative

Revision Indicators:

Section	Subject of change	Date	Version
1-16	Revision modification according to 2020/878/EU	19. 12. 2022	2
2.2	Label elements		
8.2	Exposure controls		
11	Toxicological information		
12	Ecological information		
9.2	Other information	09. 06. 2023	2.1
2.3, 11.2, 12.6	Endocrine disrupting properties		
1-16	Full revision due to composition change.	20. 09. 2023	3