Safety Data Sheet
according to 29 CFR 1910.1200(g)

Huber Antifreeze

Revision date: 07/31/2023 Page 1 of 9

1. Identification

Product identifier
Huber Antifreeze

Recommended use of the chemical and restrictions on use

Use of the substance/mixture
Coolant

Uses advised against
Any non-intended use.

Details of the supplier of the safety data sheet

Company name: Huber USA Inc.
Street: 1101 Nowell Rd Suite 110
Place: USA-NC 27607 Raleigh
Telephone: 800-726-4877
E-mail: info@huber-online.com
Internet: www.huber-usa.com

Emergency phone number: Toll Free: 1-800-424-9300; Local: +1-703-527-3887

2. Hazard(s) identification

Classification of the chemical
29 CFR Part 1910.1200
Acute toxicity: Acute Tox. 4 (oral)
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements
29 CFR Part 1910.1200
Signal word: Warning
Pictograms:

Hazard statements
Harmful if swallowed
May cause damage to organs through prolonged or repeated exposure

Precautionary statements
Do not breathe dust/fume/gas/mist/vapors/spray.
Do not eat, drink or smoke when using this product.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
Get medical advice/attention if you feel unwell.
Dispose of contents/container to local/regional/national/international regulations.

Hazard not otherwise classified
The components in this formulation do not meet the criteria for classification as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
</table>

Revision No: 2.0
USA - en
Print date: 09/05/2023
4. First-aid measures

Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation
In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin
Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment. Take off immediately all contaminated clothing.

After contact with eyes
Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Most important symptoms and effects, both acute and delayed
Irritant effect on skin, eyes and respiratory organs; headache, drowsiness; Nausea; dizziness; balance disorders; Unconsciousness.

Indication of any immediate medical attention and special treatment needed
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.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Carbon dioxide (CO2). Dry extinguishing powder. Alcohol resistant foam. Atomized water.

Unsuitable extinguishing media
High power water jet.

Specific hazards arising from the chemical
Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide (CO).

Special protective equipment and precautions for fire-fighters
In case of fire: Wear self-contained breathing apparatus.

Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice
See protective measures under point 7 and 8.

For non-emergency personnel
Wear personal protection equipment (refer to section 8).
For emergency responders
No special measures are necessary.

Environmental precautions
Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

For containment
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling
Advice on safe handling
Wear personal protection equipment (refer to section 8).
Handle and open container with care. Do not breathe fume/ mist/ vapors. Vapors / aerosols should be extracted by suction directly at point of origin.

Advice on protection against fire and explosion
Usual measures for fire prevention.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

Advice on general occupational hygiene
Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Further information on handling
General protection and hygiene measures: See section 8.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place.
Do not store in containers made of aluminium, zinc, tin and their alloys.

Hints on joint storage

Further information on storage conditions
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Recommended storage temperature: 20 °C
Protect against: frost. UV-radiation/sunlight. heat. Humidity

8. Exposure controls/personal protection

Control parameters
Additional advice on limit values
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Exposure controls
Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment.
Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses; chemical goggles (if splashing is possible). Standards: EN 166 or 29 CFR 1910.133

Hand protection
Wear suitable gloves.
Suitable material:
- FKM (fluororubber). - Thickness of the glove material 0,4 mm
  Breakthrough time >= 8 h
- Butyl rubber. - Thickness of the glove material 0,5 mm
  Breakthrough time >= 8 h
- CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm
  Breakthrough time >= 8 h
- NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm
  Breakthrough time >= 8 h
- PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm
  Breakthrough time >= 8 h
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The selected protective gloves should satisfy the specifications of standards like EN 374.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection
Suitable protective clothing: Lab apron.

Respiratory protection
With correct and proper use, and under normal conditions, breathing protection is not required. Respiratory protection necessary at: Insufficient ventilation: Particulate Respirators, Standard: 42 CFR Part 84 or DIN 143.

Environmental exposure controls
No special precautionary measures are necessary.

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>light yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>hardly noticeable</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-12.4 °C</td>
<td></td>
</tr>
<tr>
<td>Boiling point or initial boiling point</td>
<td>165 °C</td>
<td></td>
</tr>
<tr>
<td>boiling range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>3 vol. %</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>43 vol. %</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>119 °C</td>
<td>DIN 51758</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>398 °C</td>
<td>DIN 51794</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>~260 °C</td>
<td>DCS</td>
</tr>
</tbody>
</table>
pH-Value (at 20 °C): 8  DIN EN 1262
Viscosity / kinematic: not determined
Water solubility: completely miscible
Solubility in other solvents not determined
Partition coefficient n-octanol/water: SECTION 12: Ecological information
Vapor pressure: 0,08 (CAS: 107-21-1) hPa
(at 20 °C)
Density (at 20 °C): 1,13 g/cm³  DIN 51757
Relative vapour density: not determined

Other information

Information with regard to physical hazard classes
Explosive properties
none
Sustaining combustion: Not sustaining combustion
Self-ignition temperature
Gas: not determined
Oxidizing properties
none

Other safety characteristics
Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: not determined
Solid content: not determined
Sublimation point: not determined
Softening point: not determined
Pour point: not determined
Viscosity / dynamic: not determined
Flow time: not determined

10. Stability and reactivity

Reactivity
No information available.

Chemical stability
Stability: Stable
The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions
Hazardous reactions: Will not occur
No information available.

Conditions to avoid
storage temperature: < 260°C
Protect against: UV-radiation/sunlight. heat.

Incompatible materials
Materials to avoid: Oxidizing agents, strong. Acid.

Hazardous decomposition products
Can be released in case of fire: Carbon monoxide, Carbon dioxide (CO2).

11. Toxicological information
**Route(s) of Entry**

Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Skin contact: May cause irritation. Eye contact: May cause irritation.

**Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

No data available.

**Acute toxicity**

Harmful if swallowed

**ATEmix calculated**

- ATE (oral) 500.0 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-21-1</td>
<td>ethanediol; ethylene glycol</td>
<td>oral</td>
<td>ATE mg/kg</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;5000</td>
<td>Rabbit</td>
<td>RTECS</td>
</tr>
</tbody>
</table>

**Irritation and corrosivity**

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

**Sensitizing effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**Specific target organ toxicity (STOT) - single exposure**

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

**Specific target organ toxicity (STOT) - repeated exposure**

May cause damage to organs through prolonged or repeated exposure (ethanediol; ethylene glycol)

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No data available.

**Information on other hazards**

**Endocrine disrupting properties**

No data available.

**12. Ecological information**

**Ecotoxicity**

The product has not been tested.

**Persistence and degradability**

The product has not been tested.

**Bioaccumulative potential**

No indication of bioaccumulation potential.
Mobility in soil

No data available.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

RCRA Hazardous wastes (Resource Conservation and Recovery Act)

None

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

14. Transport information

U.S. DOT 49 CFR 172.101

Proper shipping name: Not a hazardous material with respect to these transport regulations. &

Not controlled under DOT

Marine transport (IMDG)

UN number or ID number: No dangerous good in sense of this transport regulation.

UN proper shipping name: No dangerous good in sense of this transport regulation.

Transport hazard class(es): No dangerous good in sense of this transport regulation.

Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: No dangerous good in sense of this transport regulation.

UN proper shipping name: No dangerous good in sense of this transport regulation.

Transport hazard class(es): No dangerous good in sense of this transport regulation.

Packing group: No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See section 8.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

15. Regulatory information

U.S. Regulations

National Inventory TSCA

ethanediol; ethylene glycol listed in the TSCA inventory 8 (b): (x) active,
ethanediol; ethylene glycol not listed under TSCA 12(b)
National regulatory information

SARA Section 304 CERCLA:
Ethylene glycol (107-21-1): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:
Ethylene glycol (107-21-1): Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA Section 313 Toxic release inventory:
Ethylene glycol (107-21-1): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):
Ethylene glycol (107-21-1)

State Regulations

WARNING: This product can expose you to chemicals including Ethylene glycol (ingested) (developmental), which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

This preparation is hazardous in the sense of regulation 29 CFR Part 1910.1200.

16. Other information

Hazardous Materials Identification System (HMIS)

Health: 2
Flammability: 1
Physical Hazard: 0
Personal Protection: B

NFPA Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 0
Unique Hazard: -

Changes

Revision date: 07/31/2023
Revision No: 2.0
Rev. 1.0; Initial release: 29,09.2020
Rev. 2.0; 19.07.2023, Changes in chapter: 2-16

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
ATE: acute toxicity estimate
BCF: Bio concentration factor
ECHA: European Chemicals Agency
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
d: days
EC50: Half maximal effective concentration
EN: European Norm
EPA: Environmental Protection Agency
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
h: hours
HMIS: Hazardous Materials Identification System
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IBC: Intermediate Bulk Container
IMDG: International Maritime Code for Dangerous Goods
Classification according 29 CFR Part 1910.1200: - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)