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

1.1 Product identifier
Trade name
Cooling agent

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture
chemical analysis
Uses advised against
No data available.

1.3 Details of the supplier of the safety data sheet
Address
ELTRA GmbH
Retsch-Allee 1-5
42781 Haan GERMANY
Telephone no. +49 (0) 2104 23 33-400
Fax no. +49 (0) 2104 23 33-499
Information provided by / telephone
+49 (0) 2104 23 33-192
Advice on Safety Data Sheet
info@eltra.com

1.4 Emergency telephone number
For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification in accordance with Regulation (EC) No 1272/2008 (CLP)
Acute Tox. 4; H302
Repr. 2; H361
STOT RE 2; H373
Classification information
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP.
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)
Hazard pictograms
GHS07
GHS08
Signal word
Warning
Hazardous component(s) to be indicated on label:
ethanediol
sodium 2-ethylhexanoate

Hazard statement(s)
H302 Harmful if swallowed.
H361 Suspected of damaging fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure

Precautionary statement(s)
P201 Obtain special instructions before use.
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>Classification (EC) 1272/2008 (CLP)</th>
<th>Concentration %</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>Acute Tox. 4; H302 STOT RE 2; H373o</td>
<td>&lt; 100.00</td>
</tr>
<tr>
<td></td>
<td>107-21-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>203-473-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>603-027-00-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01-2119456816-28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>sodium 2-ethylhexanoate</td>
<td>Repr. 2; H361</td>
<td>&lt; 5.00</td>
</tr>
<tr>
<td></td>
<td>19766-69-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>243-283-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
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<td></td>
</tr>
</tbody>
</table>

Full Text for all H-phrases and EUH-phrases: pls. see section 16

<table>
<thead>
<tr>
<th>No</th>
<th>Route, target organ, concrete effect</th>
</tr>
</thead>
</table>
| 1  | H373  
   | oral; kidneys; -                     |

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation
Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Call a doctor immediately.

After skin contact
Wash off immediately with soap and water. Get medical attention if pain still persists.

After eye contact
Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion
Trade name: Cooling agent

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Alcohol-resistant foam; Extinguishing powder; Carbon dioxide; Water spray jet

Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture
In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2); Combustion products of this material have to be classed invariably as respiratory poison.

5.3 Advice for firefighters
Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For emergency responders
No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions
Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up
Pick up with absorbent material (e.g., sand, sawdust, general-purpose binder). Send in suitable containers for recovery or disposal.

6.4 Reference to other sections
No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling
Provide good ventilation at the work area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Avoid eye, skin and clothing contact. Do not breathe steams or mist of the product.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale vapours. Wash hands before breaks and after work. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion
Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions
Keep container tightly closed in a cool, well-ventilated place. Product is hygroscopic. Protect from atmospheric moisture and water.

Call a doctor immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.
Requirements for storage rooms and vessels
Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products
Do not store together with: oxidizing agents; Bases; Acids; Aldehydes; Aluminium

7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

2000/39/EC
Ethylene glycol

<table>
<thead>
<tr>
<th></th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
<td>Ethane-1,2-diol vapour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>short-term (15 min reference period)</td>
<td>104</td>
<td>mg/m³</td>
<td>40 ppm</td>
<td></td>
</tr>
<tr>
<td>long-term (8-hr TWA reference period)</td>
<td>52</td>
<td>mg/m³</td>
<td>20 ppm</td>
<td></td>
</tr>
</tbody>
</table>

Skin resorption / sensibilisation皮肤

List of approved workplace exposure limits (WELs) / EH40

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethane-1,2-diol particulate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEL long-term (8-hr TWA reference period)</td>
<td></td>
<td>mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Comments

DNEL, DMEL and PNEC values

DNEL values (worker)

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS / EC no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route of exposure</td>
<td>Exposure time</td>
</tr>
<tr>
<td>ethanediol</td>
<td>dermal</td>
</tr>
<tr>
<td></td>
<td>inhalative</td>
</tr>
</tbody>
</table>

DNEL value (consumer)

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS / EC no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route of exposure</td>
<td>Exposure time</td>
</tr>
<tr>
<td>ethanediol</td>
<td>dermal</td>
</tr>
<tr>
<td></td>
<td>inhalative</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS / EC no</th>
</tr>
</thead>
<tbody>
<tr>
<td>ecological compartment</td>
<td>Type</td>
</tr>
<tr>
<td>ethanediol</td>
<td>water</td>
</tr>
<tr>
<td></td>
<td>water</td>
</tr>
<tr>
<td></td>
<td>water</td>
</tr>
<tr>
<td></td>
<td>water</td>
</tr>
<tr>
<td></td>
<td>water</td>
</tr>
</tbody>
</table>
### 8.2 Exposure controls

**Appropriate engineering controls**

No data available.

**Personal protective equipment**

**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

**Eye / face protection**

Safety glasses with side protection shield (EN 166)

**Hand protection**

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer’s instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

- **Appropriate Material**
  - PVC / PE
- **Material thickness**
  - >= 1 mm

**Other**

Normal chemical work clothing.

**Environmental exposure controls**

No data available.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form/Colour</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour characteristic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Reference temperature</td>
<td>20</td>
<td>°C</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt;</td>
<td>100 °C</td>
</tr>
</tbody>
</table>

**Flash point**

Not applicable

**Auto-ignition temperature**

| Comments | Product is not selfigniting. |

**Oxidising properties**

No data available
Explosive properties
Product does not present an explosion hazard.

Flammability (solid, gas)
No data available

Lower flammability or explosive limits
No data available

Upper flammability or explosive limits
No data available

Vapour pressure
No data available

Vapour density
No data available

Evaporation rate
No data available

Relative density
No data available

Density
<table>
<thead>
<tr>
<th>Value</th>
<th>1.09 g/cm³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference temperature</td>
<td>20 °C</td>
</tr>
</tbody>
</table>

Solubility in water
Comments: Completely miscible

Solubility(ies)
No data available

Partition coefficient: n-octanol/water
No data available

Viscosity
No data available

9.2 Other information

Other information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available.

10.2 Chemical stability
Stable if stored and handled properly.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
No data available.

10.6 Hazardous decomposition products
No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
**Acute oral toxicity (result of the ATE calculation for the mixture)**

<table>
<thead>
<tr>
<th>No</th>
<th>Product Name</th>
<th>ATE (Mixture)</th>
<th>Method</th>
</tr>
</thead>
</table>

**Acute oral toxicity**
No data available

**Acute dermal toxicity**
No data available

**Acute inhalational toxicity**
No data available

**Skin corrosion/irritation**
No data available

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

Duration of exposure: 20 h
Species: rabbit
Source: ECHA
Evaluation: non-irritant

**Serious eye damage/irritation**
No data available

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

Duration of exposure: 24 h
Species: rabbit
Source: ECHA
Evaluation: non-irritant

**Respiratory or skin sensitisation**
No data available

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

Route of exposure: Skin
Species: Human
Source: ECHA
Evaluation: non-sensitizing

**Germ cell mutagenicity**
No data available

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

Type of examination: Bacterial Reverse Mutation Test
Species: Salmonella typhimurium
Method: OECD 471
Source: ECHA
Evaluation/classification: Based on available data, the classification criteria are not met.

**Reproduction toxicity**
No data available

**Carcinogenicity**
No data available

**STOT - single exposure**
No data available

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
</tbody>
</table>

Route of exposure: oral
NOAEL: 150 mg/kg bw/d
Duration of exposure: 12 months
Species: rat
**Target organ**
- kidneys

**Method**
- OECD 452

**Source**
- ECHA

**Evaluation/classification**
- Based on available data, the classification criteria are met.

### Aspiration hazard
No data available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure
May cause headache, dizziness, nausea, vomiting and gastrointestinal irritation.

### Other information
Other hazardous properties cannot be excluded.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Toxicity to fish (acute)

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
<tr>
<td></td>
<td>LC50</td>
<td>&gt;</td>
<td>72860  mg/l</td>
</tr>
<tr>
<td></td>
<td>Duration of exposure</td>
<td>96 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Species</td>
<td>Pimephales promelas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Source</td>
<td>ECHA</td>
<td></td>
</tr>
</tbody>
</table>

#### Toxicity to fish (chronic)
No data available

#### Toxicity to Daphnia (acute)

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>&gt;</td>
<td>100 mg/l</td>
</tr>
<tr>
<td></td>
<td>Duration of exposure</td>
<td>48 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Species</td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Source</td>
<td>ECHA</td>
<td></td>
</tr>
</tbody>
</table>

#### Toxicity to Daphnia (chronic)
No data available

#### Toxicity to algae (acute)
No data available

#### Toxicity to algae (chronic)
No data available

#### Bacteria toxicity
No data available

### 12.2 Persistence and degradability

#### Biodegradability

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ethanediol</td>
<td>107-21-1</td>
<td>203-473-3</td>
</tr>
<tr>
<td></td>
<td>Type</td>
<td>DOC decrease</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>90 - 100 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duration</td>
<td>10 day(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method</td>
<td>OECD 301 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Source</td>
<td>ECHA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluation</td>
<td>readily degradable</td>
<td></td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential
No data available.

### 12.4 Mobility in soil

---

**Trade name:** Cooling agent

**Current version:** 4.0.1, issued: 31.01.2020

**Replaced version:** 4.0.0, issued: 22.08.2018

**Region:** GB
12.5 Results of PBT and vPvB assessment
No data available.

12.6 Other adverse effects
No data available.

12.7 Other information

**Ecological data are not available.**

Do not let enter the product into drains or waterways and do not store on public depositories.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Product**
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**
Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

### SECTION 14: Transport information

14.1 Transport ADR/RID/ADN
The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG
The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA
The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information
No data available.

14.5 Environmental hazards
Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user
No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not relevant

### SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU regulations**

<table>
<thead>
<tr>
<th>Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REACH candidate list of substances of very high concern (SVHC) for authorisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

### 15.2 Chemical safety assessment

No data available.

### SECTION 16: Other information

**Further information**

Article no. 90870, 500 ml

**Sources of key data used to compile the data sheet:**

**EC Directives**


**National Threshold Limit Values**

of the corresponding countries as amended in each case.

**Transport regulations**

according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

H373o  May cause damage to organs through prolonged or repeated exposure if swallowed.

**Department issuing safety data sheet**

UMCO GmbH

Georg-Wilhelm-Str. 187, D-21107 Hamburg

Tel.: +49 40 /555 546 300  Fax: +49 40 /555 546 357  e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:
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