# Safety data sheet
## according to 1907/2006/EC, Article 31

*Printing date 21.01.2021* *Revision: 21.01.2021*

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

· **Product identifier**

· **Trade name: Ethyl Glycol**
· **CAS Number:**
110-80-5
· **EC number:**
203-804-1
· **Index number:**
603-012-00-X
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**

· **Further information obtainable from:**

| | |
|---|---|
| HEALTH | *2 |
| FIRE | 2 |
| REACTIVITY | 0 |

## 2 Hazards identification

· **Classification of the substance or mixture**



*flame*

*Flam. Liq. 3 H226 Flammable liquid and vapour.*



*skull and crossbones*

*Acute Tox. 3 H331 Toxic if inhaled.*



*health hazard*

*Repr. 1B H360 May damage fertility or the unborn child.*



*Acute Tox. 4 H302 Harmful if swallowed.*

· **Label elements**
· **GHS label elements**
*The substance is classified and labelled according to the Globally Harmonised System (GHS).*
· **Hazard pictograms**



GHS02 GHS06 GHS08

· **Signal word** *Danger*

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**Trade name: Ethyl Glycol**

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· **Hazard statements**
Flammable liquid and vapour.
Harmful if swallowed.
Toxic if inhaled.
May damage fertility or the unborn child.
· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
Avoid breathing dust/fume/gas/mist/vapours/spray.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterisation: Substances**
· **CAS No. Description**
110-80-5 2-ethoxyethanol
· **Identification number(s)**
· **EC number:** 203-804-1
· **Index number:** 603-012-00-X

| · **SVHC** | |
|---|---|
| 110-80-5 | 2-ethoxyethanol |

## 4 First aid measures

· **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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** Call for a doctor immediately.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

## 5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards arising from the substance or mixture** No further relevant information available.

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· ***Advice for firefighters***
· ***Protective equipment:*** *Mouth respiratory protective device.*

## 6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures***
*Wear protective equipment. Keep unprotected persons away.*
· ***Environmental precautions:***
*Dilute with plenty of water.*
*Do not allow to enter sewers/ surface or ground water.*
· ***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 item 13.*
*Ensure adequate ventilation.*
· ***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.*

## 7 Handling and storage

· ***Handling:***
· ***Precautions for safe handling***
*Ensure good ventilation/exhaustion at the workplace.*
*Open and handle receptacle with care.*
· ***Information about fire - and explosion protection:***
*Keep ignition sources away - Do not smoke.*
*Protect against electrostatic charges.*
*Keep respiratory protective device available.*

· ***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.*
· ***Specific end use(s)*** *No further relevant information available.*

## 8 Exposure controls/personal protection

· ***Additional information about design of technical facilities:*** *No further data; see item 7.*

· ***Control parameters***

| · ***Ingredients with limit values that require monitoring at the workplace:*** | |
|---|---|
| ***110-80-5 2-ethoxyethanol*** | |
| *PEL (USA)* | *740 mg/m³, 200 ppm*<br>*Skin* |
| *REL (USA)* | *1.8 mg/m³, 0.5 ppm*<br>*Skin* |
| *TLV (USA)* | *18 mg/m³, 5 ppm*<br>*Skin; BEI* |

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| | |
|---|---|
| WEL (Great Britain) | 37 mg/m³, 10 ppm<br>Sk |

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**
· **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 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.
· **Protection of hands:**



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.
· **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 protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

| | |
|---|---|
| · **Information on basic physical and chemical properties** | |
| · **General Information** | |
| · **Appearance:** | |
| **Form:** | Oily |
| **Colour:** | Colourless |
| · **Odour:** | Ether-like |
| · **Odour threshold:** | Not determined. |
| · **pH-value:** | Not determined. |
| · **Change in condition** | |
| **Melting point/freezing point:** | -100 °C |
| **Initial boiling point and boiling range:** | 135 °C |

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| | |
|---|---|
| · **Flash point:** | 40 °C |
| · **Flammability (solid, gas):** | Not applicable. |
| · **Ignition temperature:** | 235 °C |
| · **Decomposition temperature:** | Not determined. |
| · **Auto-ignition temperature:** | Not determined. |
| · **Explosive properties:** | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · **Explosion limits:** | |
| **Lower:** | 1.8 Vol % |
| **Upper:** | 15.7 Vol % |
| · **Vapour pressure at 20 °C:** | ca.5 hPa |
| · **Density at 20 °C:** | 0.93 g/cm³ |
| · **Relative density** | Not determined. |
| · **Vapour density** | Not determined. |
| · **Evaporation rate** | Not determined. |
| · **Solubility in / Miscibility with water:** | Fully miscible. |
| · **Partition coefficient: n-octanol/water:** | Not determined. |
| · **Viscosity:** | |
| **Dynamic at 20 °C:** | 2.07 mPas |
| **Kinematic:** | Not determined. |
| · **Other information** | No further relevant information available. |

## 10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity**

· **LD/LC50 values relevant for classification:**

| | | |
|---|---|---|
| Oral | LD50 | 3000 mg/kg (rat) |
| Dermal | LD50 | 3300 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 2000 mg/l (rat) |

· **Primary irritant effect:**
· **Skin corrosion/irritation** No irritant effect.
· **Serious eye damage/irritation** No irritating effect.

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· ***Respiratory or skin sensitisation*** *No sensitising effects known.*
· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***
*Repr. 1B*

## 12 Ecological information

· ***Toxicity***
· ***Aquatic toxicity:*** *No further relevant information available.*
· ***Persistence and degradability*** *No further relevant information available.*
· ***Behaviour in environmental systems:***
· ***Bioaccumulative potential*** *No further relevant information available.*
· ***Mobility in soil*** *No further relevant information available.*
· ***Additional ecological information:***
· ***General notes:***
*Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water*
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*
· ***Other adverse effects*** *No further relevant information available.*

## 13 Disposal considerations

· ***Waste treatment methods***
· ***Recommendation***
*Must not be disposed together with household garbage. Do not allow product to reach sewage system.*

· ***Uncleaned packaging:***
· ***Recommendation:*** *Disposal must be made according to official regulations.*
· ***Recommended cleansing agents:*** *Water, if necessary together with cleansing agents.*

## 14 Transport information

| | |
|---|---|
| · ***UN-Number*** | |
| · ***ADR, IMDG, IATA*** | *1171* |
| · ***UN proper shipping name*** | |
| · ***ADR*** | *1171 ETHYLENE GLYCOL MONOETHYL ETHER* |
| · ***IMDG, IATA*** | *ETHYLENE GLYCOL MONOETHYL ETHER* |
| · ***Transport hazard class(es)*** | |
| · ***ADR, IMDG, IATA*** |  |
| · ***Class*** | *3 Flammable liquids.* |
| · ***Label*** | *3* |
| · ***Packing group*** | |
| · ***ADR, IMDG, IATA*** | *III* |

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| | |
|---|---|
| · ***Environmental hazards:*** | |
| · ***Marine pollutant:*** | *No* |
| · ***Special precautions for user*** | *Warning: Flammable liquids.* |
| · ***Hazard identification number (Kemler code):*** | *30* |
| · ***EMS Number:*** | *F-E,S-D* |
| · ***Transport in bulk according to Annex II of Marpol and the IBC Code*** | *Not applicable.* |
| · ***Transport/Additional information:*** | |
| · ***ADR*** | |
| · ***Limited quantities (LQ)*** | *LQ7* |
| · ***Transport category*** | *3* |
| · ***Tunnel restriction code*** | *D/E* |
| · ***UN "Model Regulation":*** | *UN 1171 ETHYLENE GLYCOL MONOETHYL ETHER, 3, III* |

## 15 Regulatory information

· ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
· ***GHS label elements***
*The substance is classified and labelled according to the Globally Harmonised System (GHS).*
· ***Hazard pictograms***



GHS02 GHS06 GHS08

· ***Signal word*** *Danger*
· ***Hazard statements***
*Flammable liquid and vapour.*
*Harmful if swallowed.*
*Toxic if inhaled.*
*May damage fertility or the unborn child.*
· ***Precautionary statements***
*Keep away from heat/sparks/open flames/hot surfaces. No smoking.*
*Use explosion-proof electrical/ventilating/lighting equipment.*
*Avoid breathing dust/fume/gas/mist/vapours/spray.*
*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
*Store locked up.*
*Dispose of contents/container in accordance with local/regional/national/international regulations.*
· ***Chemical safety assessment:*** *A Chemical Safety Assessment has not been carried out.*

## 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.*

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

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· ***Abbreviations and acronyms:***

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*
*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*
*ICAO: International Civil Aviation Organisation*
*ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)*
*ADR: Accord européen sur le transport 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*
*EINECS: European Inventory of Existing Commercial 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*
*SVHC: Substances of Very High Concern*
*vPvB: very Persistent and very Bioaccumulative*
*Flam. Liq. 3: Flammable liquids – Category 3*
*Acute Tox. 4: Acute toxicity - oral – Category 4*
*Acute Tox. 3: Acute toxicity - inhalation – Category 3*
*Repr. 1B: Reproductive toxicity – Category 1B*