



## Material Safety Data Sheet

Liquid

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### 1. Product

#### 1.1. Product identifier:

Product Name:

Liquid

### 2. Hazards Identification

#### 2.1. Classification of the substance or mixture



GHS02;FLAMMABLE

H225 Highly flammable liquid and vapour

#### 2.2 Label elements



GHS02;FLAMMABLE

#### HAZARD STATEMENTS :

H225 Highly flammable liquid and vapour

#### PRECAUTIONARY STATEMENTS:

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking

P241 Use explosion-proof electrical/ventilating/lightning equipment

P243 Take precautionary measures against static discharge

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

#### Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

### 3. Composition / Information on Ingredients



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#### 3.1 Chemical characterization: Substances

| INCI – Ingredient Name | CAS Number | Hazard Symbol (CE) No<br>1272/2008 | %-Range |
|------------------------|------------|------------------------------------|---------|
| Alcohol Denat.         | 64-17-5    | Flam. Liq. 2 H225                  | 70 %    |

## 4. First Aid Measures

#### 4.1. Description of first aid measures

|                      |   |
|----------------------|---|
| <b>Skin contact:</b> | Remove contaminated clothing and wash before reuse. Remove and destroy contaminated shoes. Flush with plenty of water.  |
| <b>Inhalation:</b>   | Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention. |
| <b>Ingestion:</b>    | Get medical attention IMMEDIATELY.  |
| <b>Eye Contact:</b>  | Immediately wash the eyes with plenty of water for at least 10 min. holding the eye open. Obtain medical attention urgently.                                  |

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

|                      |   |
|----------------------|---|
| <b>Skin contact:</b> | Repeated exposure may cause skin dryness or cracking.   |
| <b>Inhalation:</b>   | The product can cause cough, drowsiness, headache and dizziness   |
| <b>Ingestion:</b>    | Ingestion of high amounts can lead to excitement or loss of consciousness. See inhalation for other symptoms. |
| <b>Eye Contact:</b>  | The product can cause redness and pain.   |

## 5. Fire Fighting Measures

#### 5.1. Extinguishing media

|                             |  |
|-----------------------------|--|
| <b>Extinguishing media:</b> | Carbon dioxide (CO <sub>2</sub> ), powder or alcohol resistant foam. |
| <b>Unsuitable:</b>          | Waterspray jet.  |

#### 5.2. Special hazards arising from the substance or mixture



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Highly flammable liquid. Vapours in air can be explosive (see section 9)

#### **5.3. Advice for fire-fighters**

##### **Protective equipment:**

Wear self-contained respiratory protective device.

##### **Additional information:**

Do not spray water directly into tanks or vessels to avoid boil over or spillage.

## 6. Accidental Release Measures

#### **6.1 Personal Precautions**

Refer to protective measures listed in sections 8.

#### **6.2 Environmental Precautions**

Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater. Do not allow to penetrate the ground/soil.

#### **6.3 Methods for cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dilute with plenty water.

#### **6.4 Additional information**

Consult trained personell. Consider the information for "Personal Protection" in chapter 8 of this Safety Data Sheet.

## 7. Handling and Storage

#### **7.1. Precautions for safe handling**

Do not use near ignition sources and sources for flames or sparks. Use in ventilated areas. Use materials which do not build-up static electrical charges.

#### **7.2 Precautions for safe storage**

Store in well-ventilated area. Keep containers closed when not in use. Store away from ignition sources. All equipment should be grounded. Avoid strong oxidizing agents, store in a clean, dry area.

#### **7.3 Other Precautions:**

All precautions must be observed. Empty container may retain product residues (vapour or liquid).



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#### 8. Exposure Controls / Personal Protection

##### 8.1. Exposure Limits

| Hazardous Ingredients | Cas Nr. | Desc. | Value | Unit |
|-----------------------|---------|-------|-------|------|
| Ethanol               | 64-17-5 | OES   | 1000  | Ppm  |

##### 8.2. Exposure controls

|                                |  |
|--------------------------------|--|
| <b>Engineering measures:</b>   | Use process enclosures, local exhaust ventilation or other engineering controls to control airborne exposure. Use explosion-proof ventilation equipment.   |
| <b>Respiratory protection:</b> | Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during application and handling unless air monitoring demonstrates vapour/mist levels below applicable limits. Follow respirator manufacturer's recommendations for selection and use.           |
| <b>Ventilation:</b>            | Sufficient ventilation must be provided to maintain airborne concentrations below TLV, PEL and LEL limits as listed in Section 8.  |
| <b>Hand protection:</b>        | Chemical resistant protective gloves should be worn when handling this product. Check with glove manufacturer to determine proper glove type.  |
| <b>Eye protection:</b>         | Splash-proof chemical goggles should be worn   |
| <b>Skin protection:</b>        | Impervious clothing and boots should be worn. Eye bath and safety shower should be provided.   |
| <b>Hygienic practices:</b>     | Good personal hygiene practices are required at all times when handling chemicals. These practices include, but are not limited to, washing when safety equipment is removed, at the end of each shift or when going on breaks and especially if contamination occurs. |

#### 9. Physical and Chemical Properties

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

|                                |                  |
|--------------------------------|------------------|
| <b>Form:</b>                   | Liquid           |
| <b>Colour:</b>                 | Clear, colorless |
| <b>Odour:</b>                  | Like alcohol     |
| <b>Boiling/Freezing Point:</b> | 81°C             |
| <b>Viscosity:</b>              | N/DA             |



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Vapor Density : 0.88 g/cm<sup>3</sup> @ 20°C  
Flash Point: 23°C (closed cup)

Solubility in Water: Fully miscible  
Ignition Temperature: 363.0°C

## 10. Stability and Reactivity

### 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous reactions: May occur.

### 10.4. Conditions to avoid

Conditions to avoid: Heat, flames, ignition sources.

10.5. Incompatible materials Materials to avoid: Oxidizing agents

### 10.6. Hazardous decomposition products

Haz. decomp. Products: None expected under normal use conditions.

## 11. Toxicological Information

### 11.1. Information on toxicological effects Relevant effects for mixture:

| Acute Toxicity: | LD50        | LC50/4 h |
|-----------------|-------------|----------|
| Oral            | >2000 mg/kg |          |
| Dermal          | >2000 mg/kg |          |
| Inhalation      |             | >20 mg/l |

### 11.2 Symptoms/routes of exposure

Skin contact: No irritating effect  
Eye contact: irritating effect  
Sensitization: No sensitizing effects known



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### 12. Ecological Information

#### 12.1 Ecotoxicity (data main ingredient)

**Acute toxicity:** Fish, *Leuciscus Idus* (golden orfe), LC50, 48 h, 8140 mg/l  
Crustaceans, *Daphnia Magna* (water flea), EC50, 48 h, >9000 mg/l

#### 12.2 Persistence and degradability

**Biodegradation:** The product is readily biodegradable. BOD5: 1.55 g O<sub>2</sub>/g = 74% of the Theoretical Oxygen Demand.

**12.3 Bioaccumulation Bioaccumulation:** Log Pow <3  
Result: No bioaccumulative effects.

#### 12.4 Mobility

**Mobility:** Considerable solubility and mobility

#### 12.5 Other adverse effects

**Other adverse effects:** Ecological injuries are not known or expected under normal use

### 13. Disposal Considerations

#### 13.1 Waste treatment methods

In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit.

#### 13.2 Contaminated packaging

Dispose of as unused product. Where possible recycling is preferred to disposal or incineration.

### 14. Transport Information

**14.1 UN Number** 1170

#### Road Transport: (ADR)

Technical name: : Ethanol, Solution  
Class : 3  
Pack Group : III  
Label : 3



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#### Maritime Transport: (IMDG)

Technical name: : Ethanol, Solution  
Class : 3  
Pack Group : III  
Ems Number : F-E, S-E

#### IATA:

Technical name: : Ethanol, Solution  
UN Number : 1170  
Class : 3  
Pack Group : III