

# Safety Data Sheet

according to UK REACH Regulation

## Ethanol

Revision date: 22.08.2022

Product code: K-3XX.01

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

#### 1.1. Product identifier

Ethanol

CAS No: 64-17-5  
Index No: 603-002-00-5  
EC No: 200-578-6

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

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

Company name: ABX advanced biochemical compounds  
Biomedizinische Forschungsreagenzien GmbH  
Street: Heinrich-Gläser-Straße 10-14  
Place: 01454 Radeberg  
Telephone: +49 3528 4041 60  
Telefax: +49 3528 4041 65  
e-mail: info@abx.de  
Contact person: Dr. Christoph Meyer  
Telephone: +49 3528 4041 8732  
e-mail: meyer@abx.de  
Internet: http://www.abx.de

#### 1.4. Emergency telephone number:

+49 3528 4041 60

### SECTION 2: Hazards identification

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

##### GB CLP Regulation

Flam. Liq. 2; H225

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### GB CLP Regulation

Signal word: Danger

Pictograms:



##### Hazard statements

H225 Highly flammable liquid and vapour.

##### Precautionary statements

P403 Store in a well-ventilated place.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

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**Hazardous components**

| CAS No  | Chemical name                      |              |          | Quantity     |
|---------|------------------------------------|--------------|----------|--------------|
|         | EC No                              | Index No     | REACH No |              |
|         | Classification (GB CLP Regulation) |              |          |              |
| 64-17-5 | ethanol; ethyl alcohol             |              |          | 95 - < 100 % |
|         | 200-578-6                          | 603-002-00-5 |          |              |
|         | Flam. Liq. 2; H225                 |              |          |              |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No  | EC No   | Chemical name          | Quantity     |
|---------|---|------------------------|--------------|
|         | Specific Conc. Limits, M-factors and ATE                        |                        |              |
| 64-17-5 | 200-578-6   | ethanol; ethyl alcohol | 95 - < 100 % |
|         | inhalation: LC50 = 95,6 mg/l (vapours); oral: LD50 = 6200 mg/kg |                        |              |

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

After contact with skin, wash immediately with: Water. Change contaminated clothing.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

If swallowed, immediately drink: Water.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**Water. Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder.**5.2. Special hazards arising from the substance or mixture**

Combustible. Vapours may form explosive mixtures with air.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Provide adequate ventilation.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Explosion hazard.

**6.3. Methods and material for containment and cleaning up****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the

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recovered material as prescribed in the section on waste disposal.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking.

**Advice on general occupational hygiene**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

**Hints on joint storage**

Do not store together with: Material, rich in oxygen, oxidizing.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No  | Substance | ppm  | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|---------|-----------|------|-------------------|-----------|-----------|--------|
| 64-17-5 | Ethanol   | 1000 | 1920              |           | TWA (8 h) | WEL    |

**8.2. Exposure controls****SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid

Colour:

**Changes in the physical state**

Melting point/freezing point: -114 °C

Boiling point or initial boiling point and boiling range: 78 °C

Flash point: 12 °C

Lower explosion limits: 3,5 vol. %

Upper explosion limits: 15 vol. %

Vapour pressure: 58 hPa  
(at 20 °C)Vapour pressure: 293 hPa  
(at 50 °C)Density: 0,79 g/cm<sup>3</sup>**SECTION 10: Stability and reactivity****10.4. Conditions to avoid**

Keep away from heat. Ignition hazard.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation**

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**Acute toxicity**

| CAS No  | Chemical name           |               |           |        |        |
|---------|-------------------------|---------------|-----------|--------|--------|
|         | Exposure route          | Dose          | Species   | Source | Method |
| 64-17-5 | ethanol; ethyl alcohol  |               |           |        |        |
|         | oral                    | LD50<br>mg/kg | 6200      | Rat    | IUCLID |
|         | inhalation (4 h) vapour | LC50          | 95,6 mg/l | Rat    | RTECS  |

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 12: Ecological information****12.1. Toxicity**

| CAS No  | Chemical name            |              |                 |         |               |        |
|---------|--------------------------|--------------|-----------------|---------|---------------|--------|
|         | Aquatic toxicity         | Dose         | [h]   [d]       | Species | Source        | Method |
| 64-17-5 | ethanol; ethyl alcohol   |              |                 |         |               |        |
|         | Acute crustacea toxicity | EC50<br>mg/l | 9268 -<br>14221 | 48 h    | Daphnia magna | IUCLID |

**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

| CAS No  | Chemical name          | Log Pow |
|---------|------------------------|---------|
| 64-17-5 | ethanol; ethyl alcohol | -0,31   |

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Further information**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

**Contaminated packaging**

Water (with cleaning agent). Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|  |         |
|--|---------|
| <b>14.1. UN number or ID number:</b>     | UN 1170 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL |
| <b>14.3. Transport hazard class(es):</b> | 3       |
| <b>14.4. Packing group:</b>              | II      |
| Hazard label:                            | 3       |
| Classification code:                     | F1      |

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|                          |          |
|--------------------------|----------|
| Special Provisions:      | 144; 601 |
| Limited quantity:        | LQ4      |
| Transport category:      | 2        |
| Hazard No:               | 33       |
| Tunnel restriction code: | D/E      |

**Inland waterways transport (ADN)**

|                                       |         |
|---------------------------------------|---------|
| <b>14.1. UN number or ID number:</b>  | UN 1170 |
| <b>14.2. UN proper shipping name:</b> | ETHANOL |

**Marine transport (IMDG)**

|  |         |
|--|---------|
| <b>14.1. UN number or ID number:</b>     | UN 1170 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL |
| <b>14.3. Transport hazard class(es):</b> | 3       |
| <b>14.4. Packing group:</b>              | II      |
| Hazard label:                            | 3       |

**Air transport (ICAO-TI/IATA-DGR)**

|  |         |
|--|---------|
| <b>14.1. UN number or ID number:</b>     | UN 1170 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL |
| <b>14.3. Transport hazard class(es):</b> | 3       |
| <b>14.4. Packing group:</b>              | II      |
| Hazard label:                            | 3       |
| Special Provisions:                      | A3      |
| Limited quantity Passenger:              | 1L      |
| IATA-packing instructions - Passenger:   | 305     |
| IATA-max. quantity - Passenger:          | 5L      |
| IATA-packing instructions - Cargo:       | 307     |
| IATA-max. quantity - Cargo:              | 60L     |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

2004/42/EC (VOC): 99,5 %

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information****Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.