

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Ethanol, absolute, 1 l

Further trade names

Ethylalkohol

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**Use of the substance/mixture**

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet**Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH
Street: Im Forstgarten 1
Place: D-66459 Kirkel
Internet: www.conatex.com

Supplier

Company name: Carbolution Chemicals GmbH
Street: Im Stadtwald, Gebäude A1.2
Place: D-66123 Saarbrücken
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232
e-mail: michael.bauer@carbolution-chemicals.de
Internet: www.carbolution-chemicals.de

1.4. Emergency telephone number:

+49 (0)681 302-71232

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: F - Highly flammable

R phrases:
Highly flammable.**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:
Flammable liquid: Flam. Liq. 2
Hazard Statements:
Highly flammable liquid and vapour.

2.2. Label elements

Signal word: Danger
Pictograms: GHS02



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Hazard statements

H225 Highly flammable liquid and vapour.

Precautionary statements

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

 Sum formula: C₂H₆O

Molecular weight: 46,07

Hazardous components

| EC No | Chemical name | Quantity |
|--------------|---|----------|
| CAS No | Classification according to Directive 67/548/EEC | |
| Index No | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| 200-578-6 | ethanol, ethyl alcohol | 100 % |
| 64-17-5 | F - Highly flammable R11 | |
| 603-002-00-5 | Flam. Liq. 2; H225 | |

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. 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

Provide fresh air.

After contact with skin

Wash with plenty of water. Change contaminated clothing.

After contact with eyes

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

After ingestion

Rinse mouth immediately and drink plenty of water.

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

 Water. Carbon dioxide (CO₂). 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. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion hazard.

6.3. Methods and material for containment and cleaning up

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

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.

Advice on storage compatibility

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 ³ | fibres/ml | Category | Origin |
|---------|-----------|------|-------------------|-----------|---------------|--------|
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |

8.2. Exposure controls

Protective and hygiene measures

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

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: colourless
 Odour: No data available

Test method

pH-Value: No data available

Changes in the physical state

Initial boiling point and boiling range: 78 °C
 Sublimation point: No data available
 Softening point: No data available
 Flash point: 14 °C

Flammability

Solid: No data available
 Gas: No data available
 Lower explosion limits: 3,3 vol. %
 Upper explosion limits: 19 vol. %
 Ignition temperature: No data available

Auto-ignition temperature

Solid: No data available
 Gas: No data available
 Vapour pressure: 59,5 hPa
 (at 20 °C)
 Vapour pressure: No data available
 Density: No data available
 Water solubility: No data available
 Partition coefficient: No data available
 Viscosity / dynamic: No data available
 Viscosity / kinematic: No data available
 Flow time: No data available
 Vapour density: No data available
 Evaporation rate: No data available
 Solvent separation test: No data available
 Solvent content: No data available

9.2. Other information

Solid content: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

No data available

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10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

10.5. Incompatible materials

Oxidizing agents, strong.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

| CAS No | Chemical name | | | | |
|---------|-------------------------|--------|------------|---------|--------|
| | Exposure routes | Method | Dose | Species | Source |
| 64-17-5 | ethanol, ethyl alcohol | | | | |
| | oral | LD50 | 6200 mg/kg | Ratte | |
| | inhalative (4 h) vapour | LC50 | 95,6 mg/l | Ratte | |

Irritation and corrosivity

No data available

Sensitising effects

No data available

Severe effects after repeated or prolonged exposure

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

Specific effects in experiment on an animal

No data available

Additional information on tests

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

Practical experience

Observations relevant to classification

No data available

SECTION 12: Ecological information

12.1. Toxicity

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

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

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Partition coefficient n-octanol/water

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

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

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

Advice on disposal

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|-------------------------|
| 14.1. UN number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL (ETHYL ALCOHOL) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 1 L |
| Transport category: | 2 |
| Hazard No: | 33 |
| Tunnel restriction code: | D/E |

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Other applicable information (land transport)

E2

Inland waterways transport (ADN)

| | |
|--|-------------------------|
| 14.1. UN number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL (ETHYL ALCOHOL) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 1 L |

Other applicable information (inland waterways transport)

E2

Marine transport (IMDG)

| | |
|--|-------------------------|
| 14.1. UN number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL (ETHYL ALCOHOL) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Special Provisions: | 144 |
| Limited quantity: | 1 L |
| EmS: | F-E, S-D |

Other applicable information (marine transport)

E2

Air transport (ICAO)

| | |
|--|-------------------------|
| 14.1. UN number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL (ETHYL ALCOHOL) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Special Provisions: | A3 A58 A180 |
| Limited quantity Passenger: | 1 L |
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |

Other applicable information (air transport)

E2

: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 100 %

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Additional information

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National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

11 Highly flammable.

Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.