

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Ethanol, absolute, 1 l**

Print date: 14.04.2015

Product code: 9991325

Page 1 of 8

**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



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 2 of 8

#### 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: C<sub>2</sub>H<sub>6</sub>O

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 (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. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 3 of 8

#### 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 <sup>3</sup>	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).

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 4 of 8

## 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 5 of 8

#### 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 6 of 8

#### 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)

<b>14.1. UN number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL (ETHYL ALCOHOL)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 7 of 8

#### Other applicable information (land transport)

E2

#### Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL (ETHYL ALCOHOL)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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)

<b>14.1. UN number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL (ETHYL ALCOHOL)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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)

<b>14.1. UN number:</b>	UN 1170
<b>14.2. UN proper shipping name:</b>	ETHANOL (ETHYL ALCOHOL)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	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 %

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ethanol, absolute, 1 l

Print date: 14.04.2015

Product code: 9991325

Page 8 of 8

#### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

#### 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.