

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 14.01.2010

Revision: 14.01.2010

**1 Identification of substance:**· **Product details:**· **Trade name:** *Ethanol Absolute*· **Article number:** 8006, 3406, 5358, KP4099, 8206, 8228, 8098, 8462, 2606· **Application of the substance / the preparation :** For Laboratory, Research or Manufacturing use.· **Manufacturer/Supplier:**

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· **Emergency information:**

Environment Health &amp; Safety department

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**2 Hazards identification**· **Hazard designation:**

F Highly flammable

· **Information pertaining to particular dangers for man and environment**

R 11 Highly flammable.

· **GHS label elements**

Danger

H225 - Highly flammable liquid and vapour.

· **Prevention:**

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

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

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

P240 Ground/bond container and receiving equipment.

· **Response:**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

· **Disposal:**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**3 Composition/information on ingredients**· **Chemical characterization:**· **CAS No. Designation:**

64-17-5 Ethanol Absolute

· **Identification number(s):**· **EINECS Number:** 200-578-6· **Index number:** 603-002-00-5**4 First aid measures**· **After inhalation** Supply fresh air; consult doctor in case of symptoms.· **After skin contact** The product is not skin irritating.· **After eye contact** Rinse opened eye for several minutes under running water.

(Contd. on page 2)

## Safety Data Sheet

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· *After swallowing* Rinse out mouth

(Contd. of page 1)

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Prevent material from reaching sewage system, holes and cellars.  
Dilute with plenty of water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special precautions necessary if used correctly.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**  
+ 15°C - +25°C  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

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

- **Components with critical values that require monitoring at the workplace:**

64-17-5 Ethanol Absolute

WEL () Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **Personal protective equipment**
- **General protective and hygienic measures** Wash hands during breaks and at the end of the work.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
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**  
Butyl rubber, BR

(Contd. on page 3)

GB

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(Contd. of page 2)

Neoprene 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 safety glasses.

- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

- **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Smell:</b>	Alcohol-like

- **Change in condition**

**Melting point/Melting range:** -114.5°C

**Boiling point/Boiling range:** 78°C

- **Flash point:** 12°C

- **Ignition temperature:** 425°C

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

- **Critical values for explosion:**

**Lower:** 3.5 Vol %

**Upper:** 15 Vol %

- **Steam pressure at 20°C:** 57 hPa

- **Density at 20°C** 0.79 g/cm<sup>3</sup>

- **Solubility in / Miscibility with**

**Water at 20°C:** 1 g/l

- **Viscosity:**

**dynamic at 20°C:** 1.2 mPas

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Heat, boiling temperatures.

- **Materials to be avoided:**

- **Dangerous reactions** No dangerous reactions known

- **Dangerous products of composition:** No dangerous decomposition products known

### 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	7060 mg/kg (rat)
	LC50/72h	20000 mg/l (rat)
	LD10	1400 mg/kg (Human)
		2000 mg/kg (Child)

- **Primary irritant effect:**

- **on the skin:** redness

- **on the eye:** redness, pain

(Contd. on page 4)

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**Trade name: Ethanol Absolute**· **Sensitization:** No sensitizing effect known.

(Contd. of page 3)

**12 Ecological information:**· **Ecotoxicological effects:**· **Aquatic toxicity:**

EC50/48h	>10.000 mg/l (daphnia magna)
IC50 / 72h	5000 mg/l (algae)
LC50	>10000 mg/l (Fish)

· **General notes:**

Water hazard class (D) 1 (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

**13 Disposal considerations**· **Product:**· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleaning agent:** Water, if necessary with cleaning agent.**14 Transport information**· **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**· **ADR/RID-GGVS/E Class:** 3 Flammable liquids.· **Kemler Number:** 33· **UN-Number:** 1170· **Packaging group:** II· **Label** 3· **Designation of goods:** 1170 ETHANOL (ETHYL ALCOHOL)· **Limited quantities (LQ)** LQ4· **Transport category** 2· **Tunnel restriction code** D/E· **Maritime transport IMDG/GGVSea:**· **IMDG/GGVSea Class:** 3· **UN Number:** 1170· **Label** 3· **Packaging group:** II· **EMS Number:** F-E,S-D· **Marine pollutant:** No

(Contd. on page 5)

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(Contd. of page 4)

· **Correct technical name:** ETHANOL (ETHYL ALCOHOL)· **Air transport ICAO-TI and IATA-DGR:**· **ICAO/IATA Class:** 3· **UN/ID Number:** 1170· **Label** 3· **Packaging group:** II· **Correct technical name:** ETHANOL (ETHYL ALCOHOL)· **UN "Model Regulation":** UN1170, ETHANOL (ETHYL ALCOHOL), 3, II**15 Regulatory information**· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**

F Highly flammable

· **Risk phrases:**

11 Highly flammable.

· **Safety phrases:**

7 Keep container tightly closed.

16 Keep away from sources of ignition - No smoking.

**16 Other information:**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing data specification sheet:** Quality Assurance Department· **Contact:** Sjors duteweert· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

· **\* Data compared to the previous version altered.**