

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

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

- **1.1 Product identifier**
- **Trade name:** Ethanol min. 95% by volume
- **Article number:** 3405
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **Registration number** 01-2119457610-43-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture :** For Laboratory, Research or Manufacturing use.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Avantor Performance Materials B.V. Tel: (+31) (0)570 - 687500
P.O.Box 1 Fax: (+31) (0)570 - 687574
7400 AA Deventer E-mail : jtbaker.nl@avantormaterials.com
The Netherlands
- **Informing department:**
E-mail : pawel.skiba@avantormaterials.com
Avantor Performance Materials Sales Office Tel.: +31(0) 570 687500
- **1.4 Emergency telephone number:**
Environment Health & Safety department
during normal opening times (8 am till 5.30 pm) tel: (+31)(0) 570 687500

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.

 - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
F; Highly flammable
R11: Highly flammable.
 - **Information concerning particular hazards for human and environment:** void

 - **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**
- 

GHS02
- **Signal word** Danger
 - **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/lighting/equipment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P240 | Ground/bond container and receiving equipment. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 1)

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Designation:**
64-17-5 Ethanol Absolute
- **Identification number(s):**
- **EC number:** 200-578-6
- **Index number:** 603-002-00-5

SECTION 4: First aid measures

- **4.1 Description of 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.
- **After swallowing** Rinse out mouth
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Prevent material from reaching sewage system, holes and cellars.
Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions necessary if used correctly.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 2)

- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
+ 15 °C - +25 °C
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

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

64-17-5 Ethanol Absolute

WEL Long-term value: 1920 mg/m³, 1000 ppm

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

· **8.2 Exposure controls**

- **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
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.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- | | |
|---------------------------|-----------------|
| · Form: | Liquid |
| · Colour: | Colourless |
| · Smell: | Alcohol-like |
| · Odour threshold: | Not determined. |

- | | |
|--------------------|-----------------|
| · pH-value: | Not determined. |
|--------------------|-----------------|

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 3)

· Change in condition	
Melting point/Melting range:	-114.5 °C
Boiling point/Boiling range:	78 °C
· Flash point:	12 °C
· Inflammability (solid, gaseous) Not applicable.	
· Ignition temperature:	425 °C
· Decomposition temperature: Not determined.	
· Self-inflammability: Not determined.	
· 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 0.8 g/cm ³	
· Relative density Not determined.	
· Vapour density Not determined.	
· Evaporation rate Not determined.	
· Solubility in / Miscibility with	
Water at 20 °C:	1 g/l
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
dynamic at 20 °C:	1.2 mPas
kinematic:	Not determined.
· 9.2 Other information No further relevant information available.	
· VOC in g/l: 790.0 g/l	
· VOC in %: 100.00 %	

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- **Thermal decomposition / conditions to be avoided:** Heat, boiling temperatures.
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

64-17-5 Ethanol Absolute

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

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 4)

- **on the eye:** redness
- **Sensitisation:** No sensitizing effect known.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

64-17-5 Ethanol Absolute

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

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **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.

SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, IMDG, IATA	UN1170
· 14.2 UN proper shipping name	
· ADR	1170 ETHANOL (ETHYL ALCOHOL)
· IMDG	ETHANOL (ETHYL ALCOHOL)
· IATA	ETHANOL

· **14.3 Transport hazard class(es)**

· **ADR**



- **Class** 3 (F1) Flammable liquids.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31


Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 5)

· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Kemer Number:	33
· EMS Number:	F-E,S-D
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1170, ETHANOL (ETHYL ALCOHOL), 3, II

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02

- Signal word *Danger*
- 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/lighting/equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.01.2015

Version number 32

Revision: 09.01.2015

Trade name: Ethanol min. 95% by volume

(Contd. of page 6)

- P240 Ground/bond container and receiving equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235 Store in a well-ventilated place. Keep cool.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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:** EHS
- **Contact:** Paweł Skiba
- **Abbreviations and acronyms:**
 - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 - ICAO: International Civil Aviation Organisation
 - ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised 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
 - Flam. Liq. 2: Flammable liquids, Hazard Category 2
- *** Data compared to the previous version altered.**

GB