

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

1 Identification

- **Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2B H320 Causes eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Irritating to eyes.



Highly flammable

(Contd. on page 2)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 1)

Highly flammable.

· **Information concerning particular hazards for human and environment:** Not applicable.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

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



Irritant

Highly flammable

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

· **Safety phrases:**

Keep container in a well-ventilated place.

Keep away from heat.

Keep away from sources of ignition - No smoking.

This material and its container must be disposed of as hazardous waste.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof

Reagent, ACS (Ethanol)

15055

· **Identification number(s)**

· **EC number:** 200-578-6

· **Index number:** 603-002-00-5

USA

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 2)

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 3)

- Store in cool, dry conditions in well sealed receptacles.
- Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

· **Components with limit values that require monitoring at the workplace:**

**64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055**

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **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**
 - 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 goggles

USA

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 4)

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Alcohol-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	-114.5 °C (-174 °F)
Boiling point/Boiling range:	79 °C (174 °F)

· **Flash point:** 13 °C (55 °F)

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:** 425 °C (797 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	3.5 Vol %
Upper:	15 Vol %

· **Vapor pressure at 20 °C (68 °F):** 59 hPa (44 mm Hg)

· **Density at 20 °C (68 °F):** 0.789 g/cm³ (6.584 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water at 20 °C (68 °F): 1 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 100.0 %

VOC content: 100.0 %

789.0 g/l / 6.58 lb/gl

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 5)

- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

**64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055**

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	1
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- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

USA

(Contd. on page 7)

Safety Data Sheet

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Printing date 05/14/2015

Reviewed on 05/14/2015



Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 6)

13 Disposal considerations

- **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 cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|------------------------------|
| · UN-Number | UN1170 |
| · DOT, ADR, IMDG, IATA | UN1170 |
| · UN proper shipping name | Ethanol |
| · DOT | 1170 Ethanol (Ethyl alcohol) |
| · ADR | ETHANOL (ETHYL ALCOHOL) |
| · IMDG | ETHANOL |
| · IATA | ETHANOL |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | II |
| · DOT, ADR, IMDG, IATA | II |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E,S-D |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 8)

USA

Safety Data Sheet

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Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 7)

· Transport/Additional information:

· DOT

· Quantity limitations

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· ADR

· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· 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

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 8)

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Irritant
Highly flammable

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

· **Safety phrases:**

Keep container in a well-ventilated place.

Keep away from heat.

Keep away from sources of ignition - No smoking.

This material and its container must be disposed of as hazardous waste.

· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 05/14/2015 / -

· **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)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

Carc. 1A: Carcinogenicity, Hazard Category 1A

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

Printing date 14.05.2015

Revision: 14.05.2015

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

· **Product identifier**

· **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Article number:** 15055, 15058, 15056

· **CAS Number:**

64-17-5

· **EC number:**

200-578-6

· **Index number:**

603-002-00-5

· **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the mixture** Laboratory chemicals

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

ProSciTech Pty Ltd

11 Carlton Street, Kirwan QLD 4817 Australia

Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emgrid Australia Pty. Ltd.

P.O. Box 118

The Patch VIC 3792

Australia

Tel: 03 9752 1785

Fax: 03 9752 1784

Website: www.emgrid.com.au

· **Further information obtainable from:** Product safety department

· **Emergency telephone number:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Irritating to eyes.



Highly flammable

Highly flammable.

· **Information concerning particular hazards for human and environment:** Not applicable.

(Contd. on page 2)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 1)

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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



Irritant
Highly flammable

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

· **Information concerning particular hazards for human and environment:**

· **Safety phrases:**

Keep container in a well-ventilated place.

Keep away from heat.

Keep away from sources of ignition - No smoking.

This material and its container must be disposed of as hazardous waste.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterisation: Substances**

· **CAS No. Description**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof

Reagent, ACS (Ethanol)

15055

· **Identification number(s)**

· **EC number:** 200-578-6

· **Index number:** 603-002-00-5

4 First aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

AU

(Contd. on page 3)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 2)

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

(Contd. on page 4)

AU

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

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Revision: 14.05.2015

Trade name: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(Contd. of page 3)

· **Control parameters**· **Ingredients with limit values that require monitoring at the workplace:**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

NES | Long-term value: 1880 mg/m³, 1000 ppm· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **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**

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 goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Liquid**Colour:** Colourless· **Odour:** Alcohol-like· **Odour threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition****Melting point/Melting range:** -114.5 °C**Boiling point/Boiling range:** 79 °C

(Contd. on page 5)

-AU

Safety data sheet
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Printing date 14.05.2015

Revision: 14.05.2015

Trade name: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(Contd. of page 4)

· Flash point:	13 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	425 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	3.5 Vol %
Upper:	15 Vol %
· Vapour pressure at 20 °C:	59 hPa
· Density at 20 °C:	0.789 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC (EC)	100.00 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

AU

(Contd. on page 6)

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Printing date 14.05.2015

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Trade name: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitisation:** No sensitising effects known.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **UN-Number**
- **ADG, IMDG, IATA** UN1170
- **UN proper shipping name**
- **ADG** 1170 ETHANOL (ETHYL ALCOHOL)
- **IMDG** ETHANOL (ETHYL ALCOHOL)

(Contd. on page 7)

-AU


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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(Contd. of page 6)

· IATA	ETHANOL
· Transport hazard class(es)	
· ADG, IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	
· ADG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· 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

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

Substance is listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

Substance is not listed.

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

(Contd. on page 8)

AU

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 7)

· Code letter and hazard designation of product:

Irritant
Highly flammable

· Risk phrases:

Highly flammable.
Irritating to eyes.

· Safety phrases:

Keep container in a well-ventilated place.
Keep away from heat.
Keep away from sources of ignition - No smoking.
This material and its container must be disposed of as hazardous waste.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

AU

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

1 Identification

- **Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2B H320 Causes eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Irritating to eyes.



Highly flammable

(Contd. on page 2)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 1)

Highly flammable.

· **Information concerning particular hazards for human and environment:** Not applicable.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

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



Irritant
Highly flammable

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

· **Safety phrases:**

Keep container in a well-ventilated place.

Keep away from heat.

Keep away from sources of ignition - No smoking.

This material and its container must be disposed of as hazardous waste.

· **Hazard description:**

· **WHMIS-symbols:**

B2 - Flammable liquid

D2B - Toxic material causing other toxic effects



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof

Reagent, ACS (Ethanol)

15055

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 2)

- **Identification number(s)**
- **EC number:** 200-578-6
- **Index number:** 603-002-00-5

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 3)

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Keep receptacle tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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

**64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055**

EL	Short-term value: 1000 ppm
EV	Long-term value: 1.900 mg/m ³ , 1.000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **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**
 - 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.

(Contd. on page 5)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 4)

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	Colorless
· Odor:	Alcohol-like
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	-114.5 °C
Boiling point/Boiling range:	79 °C

· Flash point: 13 °C

· Flammability (solid, gaseous): Not flammable.

· Ignition temperature: 425 °C

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	3.5 Vol %
Upper:	15 Vol %

· Vapor pressure at 20 °C: 59 hPa

· Density at 20 °C:	0.789 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:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %

· Other information No further relevant information available.

CA

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 5)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

**64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055**

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	I
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· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF



(Contd. of page 6)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **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 cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|------------------------------|
| · UN-Number | UN1170 |
| · DOT, TDG, IMDG, IATA | |
| · UN proper shipping name | Ethanol |
| · DOT | 1170 Ethanol (Ethyl alcohol) |
| · TDG | ETHANOL (ETHYL ALCOHOL) |
| · IMDG | ETHANOL |
| · IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · TDG, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | II |
| · DOT, TDG, IMDG, IATA | |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E,S-D |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 8)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 7)

· Transport/Additional information:

· DOT

· Quantity limitations

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· TDG

· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· 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

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/14/2015

Reviewed on 05/14/2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 8)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

Substance is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

Substance is not listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Irritant
Highly flammable

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

· **Safety phrases:**

Keep container in a well-ventilated place.

Keep away from heat.

Keep away from sources of ignition - No smoking.

This material and its container must be disposed of as hazardous waste.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 05/14/2015 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

Carc. 1A: Carcinogenicity, Hazard Category 1A

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

Printing date 14.05.2015

Revision: 14.05.2015

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

- **1.1 Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **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** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Skin Irrit. 2 H315 Causes skin irritation.

- **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 GHS07

- **Signal word** *Danger*

(Contd. on page 2)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 1)

- **Hazard statements**

- H225 *Highly flammable liquid and vapour.*
- H302+H312 *Harmful if swallowed or in contact with skin.*
- H315 *Causes skin irritation.*

- **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.*
- P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
- P322 *Specific measures (see on this label).*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **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. Description**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

- **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 complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

- **5.3 Advice for firefighters**

- **Protective equipment:** No special measures required.

GB

(Contd. on page 3)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 2)

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:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground 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 disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

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

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

- **8.2 Exposure controls**

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing

(Contd. on page 4)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 3)

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **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**

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 goggles

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

· **Odour:** Alcohol-like

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -114.5 °C

Boiling point/Boiling range: 79 °C

· **Flash point:** 13 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 425 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower: 3.5 Vol %

Upper: 15 Vol %

(Contd. on page 5)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(Contd. of page 4)

· Vapour pressure at 20 °C:	59 hPa
· Density at 20 °C:	0.789 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC (EC)	100.00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 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 relevant for classification:

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: Irritating effect.
- Sensitisation: No sensitising effects known.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.

(Contd. on page 6)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF


(Contd. of page 5)

- **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 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course 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 together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN1170 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | 1170 ETHANOL (ETHYL ALCOHOL)
ETHANOL (ETHYL ALCOHOL)
ETHANOL |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA | <div style="text-align: center;">  </div> |
| <ul style="list-style-type: none"> · Class · Label | 3 Flammable liquids.
3 |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | II |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | No |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: | Warning: Flammable liquids.
33
F-E,S-D |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 7)

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

Printing date 14.05.2015

Revision: 14.05.2015

Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Contd. of page 6)

· 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**
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· 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)
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

GB

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

1.1 Productidentificatie

· **Handelsnaam:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Artikelnummer:** 15055, 15058, 15056

· **CAS-nummer:**

64-17-5

· **EC-nummer:**

200-578-6

· **Catalogusnummer:**

603-002-00-5

· **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**

Geen verdere relevante informatie verkrijgbaar.

· **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën

· **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**

· **Fabrikant/leverancier:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: info@aurion.nl

· **Inlichtingengevende sector:** Product safety department

· **1.4 Telefoonnummer voor noodgevallen:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

· **2.1 Indeling van de stof of het mengsel**

· **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Flam. Liq. 2 H225 Licht ontvlambare vloeistof en damp.



GHS07

Acute Tox. 4 H302 Schadelijk bij inslikken.

Acute Tox. 4 H312 Schadelijk bij contact met de huid.

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

· **2.2 Etiketteringselementen**

· **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**

De stof product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

(Vervolg op blz. 2)

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 1)

· Gevarenpictogrammen


GHS02 GHS07

· Signaalwoord Gevaar
· Gevarenaanduidingen

H225 Licht ontvlambare vloeistof en damp.

H302+H312 Schadelijk bij inslikken en bij contact met de huid.

H315 Veroorzaakt huidirritatie.

· Voorzorgsmaatregelen

P210 Verwijderd houden van warmte/vonken/open vuur/hete oppervlakken. - Niet roken.

P241 Explosie veilige elektrische/ventilatie-/verlichtings- apparatuur gebruiken.

P280 Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.

P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken - huid met water afspoelen/afdouchen.

P322 Specifieke maatregelen (zie op dit etiket).

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren
· Resultaten van PBT- en zPzB-beoordeling

· **PBT:** Niet bruikbaar.

· **zPzB:** Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen
· CAS-Nr. omschrijving

64-17-5 ethanol

· Identificatienummer(s)

· **EC-nummer:** 200-578-6

· **Catalogusnummer:** 603-002-00-5

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen

· **Na het inademen:** Frisse lucht toedienen; bij klachten arts ontbieden.

· **Na huidcontact:** Over het algemeen is het produkt niet prikkelend voor de huid

· Na oogcontact:

De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.

· **Na inslikken:** Als de klachten niet minderen, een arts raadplegen

· **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.

· 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling

Geen verdere relevante informatie verkrijgbaar.

(Vervolg op blz. 3)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 2)

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:**
CO₂, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvoorzorgsmaatregelen:**
Met veel water verdunnen.
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
Onststekingsbronnen op afstand houden - niet roken.
Beschermen tegen hitte.
Maatregelen treffen tegen ontlading van statische elektriciteit.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Op een koele plaats bewaren.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**
Tanks ondoordringbaar gesloten houden.
Koel en droog bewaren in goed gesloten vaten.
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 3)

· 8.1 Controleparameters

· **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

64-17-5 ethanol

WGW	Korte termijn waarde: 1900 mg/m ³ , 990 ppm
	Lange termijn waarde: 260 mg/m ³ , 135 ppm

· **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.

· 8.2 Maatregelen ter beheersing van blootstelling

· **Persoonlijke beschermingsvoorzieningen:**

· **Algemene beschermings- en gezondheidsmaatregelen:**

Verwijderd houden van eet- en drinkwaren.

Verontreinigde kleding onmiddellijk uittrekken.

Vóór de pauze en aan het einde van werktijd handen wassen.

Aanraking met de ogen vermijden.

Aanraking met de ogen en de huid vermijden.

· **Ademhalingsbescherming:**

Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.

· **Handbescherming:**

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.

Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

· **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.

· **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

· **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

· 9.1 Informatie over fysische en chemische basiseigenschappen

· **Algemene gegevens**

· **Voorkomen:**

Vorm: Vloeistof

Kleur: Kleurloos

· **Reuk:** Alcoholachtig

· **Geurdrempelwaarde:** Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

Smeltpunt/smeltbereik: -114,5 °C

Kookpunt/kookpuntbereik: 79 °C

· **Vlampunt:** 13 °C

(Vervolg op blz. 5)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 4)

· Ontvlambaarheid (vast, gasvormig):	Niet bruikbaar.
· Ontstekingstemperatuur:	425 °C
· Ontbindingstemperatuur:	Niet bepaald.
· Zelfonsteking:	Niet bepaald.
· Ontploffingsgevaar:	Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.
· Ontploffingsgrenzen:	
Onderste:	3,5 Vol %
Bovenste:	15 Vol %
· Dampspanning bij 20 °C:	59 hPa
· Dichtheid bij 20 °C:	0,789 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water bij 20 °C:	1 g/l
· Verdelingscoëfficiënt (n-octanol/water):	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Organisch oplosmiddel:	100,0 %
VOC (EG)	100,00 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit**
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit:**

· Indelingsrelevantie LD/LC50-waarden:		
64-17-5 ethanol		
Oraal	LD50	7060 mg/kg (rat)
Inhalatief	LC50/4 h	20000 mg/l (rat)

(Vervolg op blz. 6)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 5)

- **Primaire aandoening:**
- **op de huid:** Geen prikkelend effect.
- **aan het oog:** Prikkeling
- **Overgevoeligheid:** Geen effect van overgevoeligheid bekend.


RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL) 10: Kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.
Gevaar voor water klasse 1 (D) (Lijstclassificatie): gevaar voor water klein
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN1170
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 1170 ETHANOL (ETHYLALCOHOL)
- **IMDG** ETHANOL (ETHYL ALCOHOL)
- **IATA** ETHANOL
- **14.3 Transportgevarenklasse(n)**
- **ADR, IMDG, IATA**
- 
- **klasse** 3 Brandbare vloeistoffen
- **Etiket** 3

(Vervolg op blz. 7)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 6)

· 14.4 Verpakkingsgroep: · ADR, IMDG, IATA	<i>II</i>
· 14.5 Milieugevaren: · Marine pollutant:	<i>Neen</i>
· 14.6 Bijzondere voorzorgen voor de gebruiker · Kemler-getal: · EMS-nummer:	<i>Waarschuwing: Brandbare vloeistoffen</i> <i>33</i> <i>F-E,S-D</i>
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij MARPOL 73/78 en de IBC-code	<i>Niet bruikbaar.</i>
· Transport/verdere gegevens:	
· ADR · Beperkte hoeveelheden (LQ) · Uitgezonderde hoeveelheden (EQ)	<i>1L</i> <i>Code: E2</i> <i>Grootste netto hoeveelheid per binnenverpakking: 30 ml</i> <i>Grootste netto hoeveelheid per buitenverpakking: 500 ml</i>
· Vervoerscategorie · Tunnelbeperkingscode	<i>2</i> <i>D/E</i>
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	<i>1L</i> <i>Code: E2</i> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 500 ml</i>
· VN "Model Regulation":	<i>UN1170, ETHANOL (ETHYLALCOHOL), 3, II</i>

RUBRIEK 15: Regelgeving

· 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

· SZW-lijst van kankerverwekkende stoffen	
<i>De stof is aanwezig.</i>	
· SZW-lijst van mutagene stoffen	
<i>De stof is niet aanwezig.</i>	
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid	
64-17-5	ethanol I
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling	
64-17-5	ethanol I
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding	
64-17-5	ethanol x

· Nationale voorschriften:
· Gevaarklasse v. water: Waterbezwaarlijkheid (NL) 10: Saneringsinspanning A

· 15.2 Chemischeveiligheidsbeoordeling: Een chemische veiligheidsbeoordeling is niet uitgevoerd.

NL

(Vervolg op blz. 8)

Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.05.2015

Herziening van: 14.05.2015

Handelsnaam: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Vervolg van blz. 7)

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

Afkortingen en acroniemen:

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

NL

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

1. JAGU: Aine/segude äriühingu/ettevõtja identifitseerimine

- **1.1 Tootetähis**
- **Kaubanduslik nimetus:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Artikkel:** 15055, 15058, 15056
- **CAS number:**
64-17-5
- **EÜ number:**
200-578-6
- **Indeksnumber:**
603-002-00-5
- **1.2 Aine või segu asjaomased kindlaksmääratud kasutusalaad ning kasutusalaad, mida ei soovitata**
Täiendav oluline teave puudub.
- **Aine/preparaadi kasutamine** Laborikemikaalid
- **1.3 Andmed ohutuskaardi tarnija kohta**
- **Tootja/Tarnija:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Lähemat informatsiooni saab:** Product safety department
- **1.4 Hädaabitelefoni number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2. JAGU: Ohtude identifitseerimine

- **2.1 Aine või segu klassifitseerimine**
- **Klassifikatsioon vastavalt määrusele (EÜ) nr 1272/2008**



GHS02 leek

Flam. Liq. 2 H225 Väga tuleohtlik vedelik ja aur.



GHS07

Acute Tox. 4 H302 Allaneelamisel kahjulik.
Acute Tox. 4 H312 Nahale sattumisel kahjulik.
Skin Irrit. 2 H315 Põhjustab nahaärritust.

- **2.2 Märgistuselemendid**
- **Märgistus vastavalt määrusele (EÜ) nr 1272/2008**
Aine on klassifitseeritud ja märgistatud CLP (ainete ja segude klassifitseerimise, märgistamise ja pakendamist käsitleva) määruse nõuete kohaselt.
- **Ohupiktogramm**



GHS02 GHS07

(Jätub lehelt 2)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätkub lehel 1)

- **Tunnussõna** Ettevaatust
- **Ohulaused**
 - H225 Väga tuleohtlik vedelik ja aur.
 - H302+H312 Allaneelamisel või nahale sattumisel kahjulik.
 - H315 Põhjustab nahaärritust.
- **Hoiatuslaused**
 - P210 Hoida eemal soojusallikast/sädemetest/leekidest/kuumadest pindadest. - Mitte suitsetada.
 - P241 Kasutada plahvatuskindlaid elektri-/ventilatsiooni-/valgustus-/seadmeid.
 - P280 Kanda kaitsekindaid/kaitserõivastust/kaitseprille/kaitsemaski.
 - P303+P361+P353 NAHALE (või juustele) SATTUMISE KORRAL: võtta viivitamata kõik saastunud rõivad seljast. Loputada nahka veega/loputada duši all.
 - P322 Nõuab erimeetmeid (vt käesoleval etiketil).
 - P501 Sisu/konteineri käitlus vastavuses kohalike/regionaalsete/rahvuslike/rahvusvaheliste nõuetega.
- **2.3 Muud ohud**
- **Püsiivate, bioakumuleerivate ja toksiliste ning väga püsivate ja väga bioakumuleerivate omaduste hindamine**
- **PBT:** Ei ole kohaldatav.
- **vPvB:** Ei ole kohaldatav.

3. JAGU: Koostis/teave koostisainete kohta

- **3.1 Keemiline iseloomustus: Ained**
- **CAS Nr. Kirjeldus**
64-17-5 Etanool
- **Identifitseerimisnumber (-id)**
- **EÜ number:** 200-578-6
- **Indeksnumber:** 603-002-00-5

4. JAGU: Esmaabimeetmed

- **4.1 Esmaabimeetmete kirjeldus**
- **Pärast sissehingamist:** Tagage värske õhk; kaebuste korral konsulteerige arstiga.
- **Pärast nahale sattumist:** Üldiselt toode ei ärrita nahka.
- **Pärast silma sattumist:**
Loputage avatud silm mõne minuti jooksul jooksva vee all. Kui sümptomid säilivad, konsulteerige arstiga.
- **Pärast allaneelamist:** Kui sümptomid säilivad, konsulteerige arstiga.
- **4.2 Olulisemad akuutsed ja hilisemad sümptomid ning mõju** Täiendav oluline teave puudub.
- **4.3 Märge igasuguse vältimatu meditsiiniabi ja erikohtlemise vajalikkuse kohta** Täiendav oluline teave puudub.

5. JAGU: Tulekustutusmeetmed

- **5.1 Tulekustutusvahendid**
- **Sobivad kustutusained:**
CO₂, kustutuspulber või veepihustus. Suuremaid leeke kustutada veepihustusega või alkoholikindla vahuga.
- **5.2 Aine või seguga seotud erilised ohud** Täiendav oluline teave puudub.
- **5.3 Nõuanded tuletoormaterjalidele**
- **Kaitsevarustus:** Erilised meetmed pole nõutavad.

6. JAGU: Meetmed juhusliku sattumise korral keskkonda

- **6.1 Isikukaitsemeetmed, kaitsevahendid ja toimimine hädaolukorras**
Kandke kaitsevarustus. Hoidke eemal kaitsmata isikuid.

(Jätkub lehel 3)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätub lehel 2)

- **6.2 Keskkonnakaitse meetmed:**
Lahjendage suure kogusega vett.
Ei tohi sattuda kanalisatsiooni / pinnasele või krundivette.
- **6.3 Tõkestamis- ning puhastamismeetodid ja -vahendid:**
Absorbeerige vedelikku siduva materjaliga (liiv, diatomiit, happesidujad, universaalsed sidujad, saepuru).
Tagage vastav ventilatsioon.
- **6.4 Viited muudele jagudele**
Informatsiooni ohutu kasutamise kohta vaadake osas 7.
Informatsiooni isikliku kaitsevarustuse kohta vaadake osas 8.
Informatsiooni käitlemise kohta vaadake osas 13.

7. JAGU: Käitlemine ja ladustamine

- **7.1 Ohutu käitlemise tagamiseks vajalikud ettevaatusabinõud**
Tagage hea ventilatsioon/äravool töökohas.
Vältige udu teket.
- **Informatsioon tule- ja plahvatusvastase kaitse kohta:**
Hoida eemal süttimisallikatest - mitte suitsetada.
Kaitsta kuumuse eest.
Kaitsta staatilise elektri laengute eest.
- **7.2 Ohutu ladustamise tingimused, sealhulgas sobimatud ladustamistingimused**
- **Hoiustamine:**
- **Nõudmised ladudele ja anumatele:** Säilitada külmas kohas.
- **Informatsioon koos hoiustamise kohta:** Pole nõutud.
- **Lähem informatsioon hoiustamistingimuste kohta:**
Anum säilitada tihedalt suletuna.
Säilitada jahedas, kuivas kohas hästi suletud mahutites.
Kaitsta kuumuse ja otsese päikesevalguse eest.
- **7.3 Erikasutus** Täiendav oluline teave puudub.

8. JAGU: Kokkupuute ohjamine/isikukaitse

- **Lisainformatsioon tehniliste seadmete kohta:** Rohkem andmeid pole; vaadake punkt 7.

· 8.1 Kontrolliparameetrid

- **Töökohas järelevalvatavad koostisained piirväärtustega:**

64-17-5 Etanool

TLV	Lühiajaline väärtus: 1900 mg/m ³ , 1000 ppm
	Pikaajaline väärtus: 1000 mg/m ³ , 500 ppm

- **Lisainformatsioon:** Nimekirjad kehtivad valmistamise ajal, mil kasutatakse alusdokumendina.

· 8.2 Kokkupuute ohjamine

- **Isiklik kaitsevarustus:**
- **Üldised kaitse- ja hügieenimeetmed:**
Hoida eemal toiduainetest, jookidest ja söökidest.
Koheselt eemaldage kõik määratud ja saastunud riideid
Enne pause ja töö lõpetamisel peske käed.
Vältida kokkupuudet silmadega.
Vältida kokkupuudet silmade ja nahaga.
- **Hingamisteede kaitse:**
Lühiajalise kokkupuute või madala saaste korral kasutage respiraatorfiltrit. Intensiivse või pikema kokkupuute korral kasutage suletud ringlusega hingamisteede kaitseseade.

(Jätub lehelt 4)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätkub lehel 3)

· **Käte kaitsmine:**

Kinnaste materjal peab olema läbitungimatu ja vastupidav toote/ substantsi/ preparaadi suhtes.

Puuduvate testide tõttu ei saa tootele/ preparaadile/ kemikaalide segule anda mingeid soovitusi kindamaterjali kohta.

Kinda materjali valik tuginedes läbitungivuse aegadele, difusiooni ja degradeerimisnäitajatele

· **Kinnaste materjal**

Sobivate kinnaste valik ei sõltu mitte üksnes materjalist, vaid samuti ka kvaliteedimärgistusest ning erineb erinevate tootjate puhul.

· **Kinnaste materjali läbitungimisaeg**

Täpse läbitungimisaega on määranud kaitsekinnaste tootja ning see tuleb järgida.

· **Silmakaitse:**



Tihedalt hermeetilised kaitseprillid

9. JAGU: Füüsikalised ja keemilised omadused

· **9.1 Teave üldiste füüsikaliste ja keemiliste omaduste kohta**

· **Üldine informatsioon**

· **Välimus:**

Kuju: Vedelik

Värvus: Värvitu

· **Lõhn:** Alkoholitaoline

· **Lõhnalävi:** Pole määratud.

· **pH väärtus:** Pole määratud.

· **Oleku muutus**

Sulamispunkt/Sulamisvahemik: -114,5 °C

Keemispunkt /Keemisvahemik: 79 °C

· **Leegipunkt:** 13 °C

· **Leekivus (kõva, gaasikujuline):** Ei ole kohaldatav.

· **Süttimistemperatuur:** 425 °C

· **Lagunemistemperatuur:** Pole määratud.

· **Isesüttimine:** Pole määratud.

· **Plahvatusoht:** Toode ei ole plahvatusohtlik. Siiski on võimalik plahvatusohtliku õhu/ auru segu teke.

· **Plahvatuse piirväärtused:**

Alumine: 3,5 Vol %

Ülemine: 15 Vol %

· **Auru rõhk juures 20 °C:** 59 hPa

· **Tihedus juures 20 °C:** 0,789 g/cm³

· **Suhteline tihedus** Pole määratud.

· **Auru tihedus** Pole määratud.

· **Aurustumistase** Pole määratud.

(Jätkub lehel 5)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätkub lehel 4)

- | | |
|--|--------------------------------|
| · Lahustatavus / Segunemine | |
| Vesi juures 20 °C: | 1 g/l |
| · Eraldumiskoeffitsient (n-oktanool/vesi): Pole määratud. | |
| · Viskoossus: | |
| Dünaamiline: | Pole määratud. |
| Kinemaatiline: | Pole määratud. |
| · Lahusti sisaldus: | |
| Orgaanilised lahustid: | 100,0 % |
| VOC (EC) | 100,00 % |
| · 9.2 Muu teave | Täiendav oluline teave puudub. |

10. JAGU: Püsivus ja reaktsioonivõime

- **10.1 Reaktsioonivõime**
- **10.2 Keemiline stabiilsus**
- **Termiline lagunemine / välditavad tingimused:**
Lagunemist ei esine, kui kasutatakse vastavalt spetsifikatsioonidele.
- **10.3 Ohtlike reaktsioonide võimalikkus** Ei ole teada ohtlike reaktsioone.
- **10.4 Tingimused, mida tuleb vältida** Täiendav oluline teave puudub.
- **10.5 Kokkusobimatud materjalid:** Täiendav oluline teave puudub.
- **10.6 Ohtlikud lagusaadused:** Toote ohtlikku lagunemist ei ole teada.

11. JAGU: Teave toksilisuse kohta

- **11.1 Teave toksikoloogiliste mõjude kohta**
- **Äge toksilisus:**

· **LD/LC50 väärtused klassifitseerimiseks:**

64-17-5 Etanool

Suuliselt	LD50	7060 mg/kg (rat)
Sissehingamisel	LC50/4 h	20000 mg/l (rat)

- **Peamine ärritav efekt:**
- **nahal:** Ei ole ärritavat efekti.
- **silma:** Ärritav efekt.
- **Tundlikkuse tekitamine:** Sensibiliseerivaid efekte pole teada.

12. JAGU: Ökoloogiline teave

- **12.1 Toksilisus**
- **Veetoksilisus:** Täiendav oluline teave puudub.
- **12.2 Püsivus ja lagunduvus** Täiendav oluline teave puudub.
- **12.3 Bioakumulatsioon** Täiendav oluline teave puudub.
- **12.4 Liikuvus pinnases** Täiendav oluline teave puudub.
- **Täiendav keskkonnaalane informatsioon:**
- **Üldised märkused:**
Vee ohtlikkusklass 1 (Saksa eeskirjad) (Hinnang nimekirja järgi): kergelt ohtlik vee jaoks

(Jätkub lehel 6)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätkub lehel 5)


Lahjendamata toode või selle suured kogused ei tohi sattuda krundivetesse, vooluveekogudesse või kanalisatsioonisüsteemi.

- **12.5 Püsivate, bioakumuleeruvate ja toksiliste ning väga püsivate ja väga bioakumuleeruvate omaduste hindamine**
- **PBT:** Ei ole kohaldatav.
- **vPvB:** Ei ole kohaldatav.
- **12.6 Muud kahjulikud mõjud** Täiendav oluline teave puudub.

13. JAGU: Jäätmekäitus

- **13.1 Jäätmetöötlusmeetodid**
- **Soovitused** Ei tohi käidelda koos olmeprügiga. Toode ei tohi sattuda kanalisatsioonisüsteemidesse.
- **Puhastamata pakend:**
- **Soovitused:** Käitlemine peab toimuma vastavalt ametlikele eeskirjadele.
- **Soovitavad puhastusagendid:** Vesi, vajaduse korral koos puhastusainetega.

14. JAGU: Veonõuded

- | | |
|---|---|
| · 14.1 UN number
· ADR, IMDG, IATA | UNI170 |
| · 14.2 ÜRO veose tunnusnimetus
· ADR
· IMDG
· IATA | 1170 ETANOOL (ETÜÜLALKOHOL)
ETHANOL (ETHYL ALCOHOL)
ETHANOL |
| · 14.3 Transpordi ohuklass(id)
· ADR, IMDG, IATA | |
|  | |
| · klass
· Ohtlikkusmärg | 3 Süttimisohalikud vedelikud.
3 |
| · 14.4 Pakendi rühm
· ADR, IMDG, IATA | II |
| · 14.5 Keskkonnaohud:
· Mere saasteaine: | Ei |
| · 14.6 Eriettevaatusabinõud kasutajatele
· Ohtlikkuskood (Kemler):
· EMS Number: | Hoiatus: Süttimisohalikud vedelikud.
33
F-E,S-D |
| · 14.7 Transportimine mahtlastina kooskõlas MARPOL 73/78 II lisaga ja IBC koodeksiga | Ei ole kohaldatav. |
| · Transport/Lisainformatsioon: | |
| · ADR
· Püüratud koguses (püürkogus LQ) | IL |

(Jätkub lehel 7)

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

Trükkimiskuupäev 14.05.2015

Läbi vaadatud: 14.05.2015

Kaubanduslik nimetus: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Jätub lehel 6)

· Erandkogused (EQ)	Kood: E2 Maksimaalne netokogus sisepakendi kohta: 30 ml Maksimaalne netokogus välispakendi kohta: 500 ml
· Veo kategooria	2
· Tunneli pürangu kood:	D/E
<hr style="border-top: 1px dashed #000;"/>	
· IMDG	1L
· Limited quantities (LQ)	Code: E2
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1170, ETANOOL (ETÜÜLALKOHOL), 3, II

15. JAGU: Reguleerivad õigusaktid

- **15.1 Ainete ja segude suhtes kohaldatavad ohutuse-, tervise- ja keskkonnaalased eeskirjad/õigusaktid**
Täiendav oluline teave puudub.
- **15.2 Kemikaaliohutuse hindamine:** Kemikaaliohutuse hindamist ei ole läbi viidud.

16. JAGU: Muu teave

Käesolev informatsioon põhineb meie praeguste teadmiste peal. Siiski ei garanteeri see mõningaid spetsiifilisi tootemadusi ning ei kehtesta õiguslikult kehtivaid lepingulisi suhteid.

· **Lühendid ja akronüümid:**

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

SECTION 1: Identification de la substance/du mélange et de la société/l'entreprise

· 1.1 Identificateur de produit

· **Nom du produit:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Code du produit:** 15055, 15058, 15056

· **No CAS:**

64-17-5

· **Numéro CE:**

200-578-6

· **Numéro index:**

603-002-00-5

· 1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées

Pas d'autres informations importantes disponibles.

· **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires

· 1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité

· **Producteur/fournisseur:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

· **Service chargé des renseignements:** Product safety department

· 1.4 Numéro d'appel d'urgence:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECTION 2: Identification des dangers

· 2.1 Classification de la substance ou du mélange

· **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 2 H225 Liquide et vapeurs très inflammables.



GHS07

Acute Tox. 4 H302 Nocif en cas d'ingestion.

Acute Tox. 4 H312 Nocif par contact cutané.

Skin Irrit. 2 H315 Provoque une irritation cutanée.

· 2.2 Éléments d'étiquetage

· **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.

· **Pictogrammes de danger**



GHS02 GHS07

· **Mention d'avertissement** Danger

(suite page 2)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(suite de la page 1)

- **Mentions de danger**

- H225 *Liquide et vapeurs très inflammables.*
- H302+H312 *Nocif en cas d'ingestion ou de contact cutané.*
- H315 *Provoque une irritation cutanée.*

- **Conseils de prudence**

- P210 *Tenir à l'écart de la chaleur/des étincelles/des flammes nues/des surfaces chaudes. - Ne pas fumer.*
- P241 *Utiliser du matériel électrique/de ventilation/d'éclairage/antidéflagrant.*
- P280 *Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.*
- P303+P361+P353 *EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher.*
- P322 *Mesures spécifiques (voir sur cette étiquette).*
- P501 *Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.*

- **2.3 Autres dangers**

- **Résultats des évaluations PBT et vPvB**

- **PBT:** Non applicable.
- **vPvB:** Non applicable.

SECTION 3: Composition/informations sur les composants

- **3.1 Caractérisation chimique: Substances**

- **No CAS Désignation**
64-17-5 éthanol
- **Code(s) d'identification**
- **Numéro CE:** 200-578-6
- **Numéro index:** 603-002-00-5

SECTION 4: Premiers secours

- **4.1 Description des premiers secours**

- **Après inhalation:** Donner de l'air frais, consulter un médecin en cas de troubles.
- **Après contact avec la peau:** En règle générale, le produit n'irrite pas la peau.
- **Après contact avec les yeux:**
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** Si les troubles persistent, consulter un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**
Pas d'autres informations importantes disponibles.

SECTION 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**

- **Moyens d'extinction:**

CO₂, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistante à l'alcool.

- **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

(suite page 3)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(suite de la page 2)

- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

SECTION 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**
Porter un équipement de sécurité. Eloigner les personnes non protégées.
- **6.2 Précautions pour la protection de l'environnement:**
Diluer avec beaucoup d'eau.
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).
Assurer une aération suffisante.
- **6.4 Référence à d'autres sections**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

SECTION 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Veiller à une bonne ventilation/aspiration du poste de travail.
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**
Tenir à l'abri des sources d'inflammation - ne pas fumer.
Tenir à l'abri de la chaleur.
Prendre des mesures contre les charges électrostatiques.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Stocker dans un endroit frais.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**
Tenir les emballages hermétiquement fermés.
Stocker au frais et au sec dans des fûts bien fermés.
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

SECTION 8: Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**
Sans autre indication, voir point 7.

- **8.1 Paramètres de contrôle**

- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

64-17-5 éthanol

VME	Valeur momentanée: 9500 mg/m ³ , 5000 ppm
	Valeur à long terme: 1900 mg/m ³ , 1000 ppm

- **Remarques supplémentaires:**
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

(suite page 4)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(suite de la page 3)

- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
Retirer immédiatement les vêtements souillés ou humectés.
Se laver les mains avant les pauses et en fin de travail.
Eviter tout contact avec les yeux.
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.
- **Protection des mains:**
Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.
Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.
- **Matériau des gants**
Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.
- **Temps de pénétration du matériau des gants**
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.
- **Protection des yeux:**



Lunettes de protection hermétiques

SECTION 9: Propriétés physiques et chimiques

- **9.1 Informations sur les propriétés physiques et chimiques essentielles**
- **Indications générales**
- **Aspect:**
- **Forme:** Liquide
- **Couleur:** Incolore
- **Odeur:** Genre alcool
- **Seuil olfactif:** Non déterminé.
- **valeur du pH:** Non déterminé.
- **Changement d'état**
- **Point de fusion:** -114,5 °C
- **Point d'ébullition:** 79 °C
- **Point d'éclair** 13 °C
- **Inflammabilité (solide, gazeux):** Non applicable.
- **Température d'inflammation:** 425 °C
- **Température de décomposition:** Non déterminé.
- **Auto-inflammation:** Non déterminé.
- **Danger d'explosion:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.

(suite page 5)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(suite de la page 4)

· Limites d'explosion:	
Inférieure:	3,5 Vol %
Supérieure:	15 Vol %
· Pression de vapeur à 20 °C: 59 hPa	
· Densité à 20 °C: 0,789 g/cm ³	
· Densité relative Non déterminé.	
· Densité de vapeur. Non déterminé.	
· Vitesse d'évaporation Non déterminé.	
· Solubilité dans/miscibilité avec l'eau à 20 °C: 1 g/l	
· Coefficient de partage (n-octanol/eau): Non déterminé.	
· Viscosité:	
Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants:	
Solvants organiques:	100,0 %
VOC (CE)	100,00 %
· 9.2 Autres informations Pas d'autres informations importantes disponibles.	

SECTION 10: Stabilité et réactivité

- **10.1 Réactivité**
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

SECTION 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë:**
- **Valeurs LD/LC50 déterminantes pour la classification:**

64-17-5 éthanol

Oral	LD50	7060 mg/kg (rat)
Inhalatoire	LC50/4 h	20000 mg/l (rat)

- **Effet primaire d'irritation:**
- **de la peau:** Pas d'effet d'irritation.
- **des yeux:** Effet d'irritation.
- **Sensibilisation:** Aucun effet de sensibilisation connu.

SECTION 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.

(suite page 6)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF


(suite de la page 5)

- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 1 (D) (classification selon liste): peu polluant
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

SECTION 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

SECTION 14: Informations relatives au transport

<ul style="list-style-type: none"> · 14.1 No ONU · ADR, IMDG, IATA 	UN1170
<ul style="list-style-type: none"> · 14.2 Nom d'expédition des Nations unies · ADR · IMDG · IATA 	1170 ÉTHANOL (ALCOOL ÉTHYLIQUE) ETHANOL (ETHYL ALCOHOL) ETHANOL
<ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR, IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> · Classe · Étiquette 	3 Liquides inflammables. 3
<ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: · Marine Polluant: 	Non
<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur · Indice Kemler: · No EMS: 	Attention: Liquides inflammables. 33 F-E,S-D

(suite page 7)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 14.05.2015

Révision: 14.05.2015

Nom du produit: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(suite de la page 6)

· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol 73/78 et au recueil IBC	Non applicable.
· Indications complémentaires de transport:	
· ADR	1L
· Quantités limitées (LQ)	Code: E2
· Quantités exceptées (EQ)	Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 500 ml
· Catégorie de transport	2
· Code de restriction en tunnels	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
· "Règlement type" de l'ONU:	UN1170, ÉTHANOL (ALCOOL ÉTHYLIQUE), 3, II

SECTION 15: Informations réglementaires

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
Pas d'autres informations importantes disponibles.
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

SECTION 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Acronymes et abréviations:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

ABSCHNITT 1: Bezeichnung des Stoffs bzw. des Gemischs und des Unternehmens

· **1.1 Produktidentifikator**

· **Handelsname:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Artikelnummer:** 15055, 15058, 15056

· **CAS-Nummer:**

64-17-5

· **EG-Nummer:**

200-578-6

· **Indexnummer:**

603-002-00-5

· **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**

Keine weiteren relevanten Informationen verfügbar.

· **Verwendung des Stoffes / des Gemisches** Laborchemikalien

· **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**

· **Hersteller/Lieferant:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Science Services GmbH

Unterhachinger Str. 75

81737 München Germany

Tel: +49(0)89 18 93 668-0

safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240

Toxikologische Abteilung der II. Medizinischen Klinik

rechts der Isar, Munchen. - www.toxinfo.org

· **Auskunftgebender Bereich:** Product safety department

· **1.4 Notrufnummer:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· **2.1 Einstufung des Stoffs oder Gemischs**

· **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Flam. Liq. 2 H225 Flüssigkeit und Dampf leicht entzündbar.



GHS07

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.

Acute Tox. 4 H312 Gesundheitsschädlich bei Hautkontakt.

Skin Irrit. 2 H315 Verursacht Hautreizungen.

(Fortsetzung auf Seite 2)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 1)

- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**
Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS02 GHS07

- **Signalwort Gefahr**
- **Gefahrenhinweise**
H225 Flüssigkeit und Dampf leicht entzündbar.
H302+H312 Gesundheitsschädlich bei Verschlucken oder Hautkontakt.
H315 Verursacht Hautreizungen.
- **Sicherheitshinweise**
P210 Von Hitze/Funken/offener Flamme/heißen Oberflächen fernhalten. Nicht rauchen.
P241 Explosionsgeschützte elektrische Betriebsmittel/Lüftungsanlagen/Beleuchtung verwenden.
P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
P303+P361+P353 BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.
P322 Gezielte Maßnahmen (siehe auf diesem Kennzeichnungsetikett).
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.1 Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
64-17-5 Ethanol
- **Identifikationsnummer(n)**
- **EG-Nummer:** 200-578-6
- **Indexnummer:** 603-002-00-5

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Nach Einatmen:** Frischluftzufuhr, bei Beschwerden Arzt aufsuchen.
- **Nach Hautkontakt:** Im allgemeinen ist das Produkt nicht hautreizend.
- **Nach Augenkontakt:**
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.

(Fortsetzung auf Seite 3)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 2)

- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**
CO₂, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:**
Mit viel Wasser verdünnen.
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**
Zündquellen fernhalten - nicht rauchen.
Vor Hitze schützen.
Maßnahmen gegen elektrostatische Aufladung treffen.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** An einem kühlen Ort lagern.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**
Behälter dicht geschlossen halten.
In gut verschlossenen Gebinden kühl und trocken lagern.
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Leichtentzündlich

(Fortsetzung auf Seite 4)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 3)

· **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

· **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

· **8.1 Zu überwachende Parameter**

· **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**

64-17-5 Ethanol

AGW	Langzeitwert: 960 mg/m ³ , 500 ml/m ³ 2(II);DFG, Y
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· **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

· **8.2 Begrenzung und Überwachung der Exposition**

· **Persönliche Schutzausrüstung:**

· **Allgemeine Schutz- und Hygienemaßnahmen:**

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Berührung mit den Augen vermeiden.

Berührung mit den Augen und der Haut vermeiden.

· **Atemschutz:**

Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

· **Handschutz:**

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein.

Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**



Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**

· **Allgemeine Angaben**

· **Aussehen:**

Form: Flüssigkeit

Farbe: Farblos

· **Geruch:** Alkoholartig

(Fortsetzung auf Seite 5)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 4)

· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert:	Nicht bestimmt.
· Zustandsänderung Schmelzpunkt/Schmelzbereich:	-114,5 °C
Siedepunkt/Siedebereich:	79 °C
· Flammpunkt:	13 °C
· Entzündlichkeit (fest, gasförmig):	Nicht anwendbar.
· Zündtemperatur:	425 °C
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündlichkeit:	Nicht bestimmt.
· Explosionsgefahr:	Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.
· Explosionsgrenzen: Untere:	3,5 Vol %
Obere:	15 Vol %
· Dampfdruck bei 20 °C:	59 hPa
· Dichte bei 20 °C:	0,789 g/cm ³
· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser bei 20 °C:	1 g/l
· Verteilungskoeffizient (n-Octanol/Wasser):	Nicht bestimmt.
· Viskosität: Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt: Organische Lösemittel:	100,0 %
VOC (EU)	100,00 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität**
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

DE

(Fortsetzung auf Seite 6)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 14.05.2015

überarbeitet am: 14.05.2015

Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 5)

ABSCHNITT 11: Toxikologische Angaben

· 11.1 Angaben zu toxikologischen Wirkungen

· Akute Toxizität:

· Einstufungsrelevante LD/LC50-Werte:

64-17-5 Ethanol

Oral	LD50	7060 mg/kg (rat)
Inhalativ	LC50/4 h	20000 mg/l (rat)

· Primäre Reizwirkung:

· **an der Haut:** Keine Reizwirkung.

· **am Auge:** Reizwirkung.

· **Sensibilisierung:** Keine sensibilisierende Wirkung bekannt.

ABSCHNITT 12: Umweltbezogene Angaben

· 12.1 Toxizität

· **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.

· **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.

· **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.

· **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.

· Weitere ökologische Hinweise:

· Allgemeine Hinweise:

Wassergefährdungsklasse 1 (Listeneinstufung): schwach wassergefährdend

Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.

· 12.5 Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

· **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

· 13.1 Verfahren der Abfallbehandlung

· **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

· Ungereinigte Verpackungen:

· **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

· **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

ABSCHNITT 14: Angaben zum Transport

· 14.1 UN-Nummer

· **ADR, IMDG, IATA**

UN1170

· 14.2 Ordnungsgemäße UN-Versandbezeichnung

· **ADR**

1170 ETHANOL (ETHYLALKOHOL)

· **IMDG**

ETHANOL (ETHYL ALCOHOL)

· **IATA**

ETHANOL

(Fortsetzung auf Seite 7)

Sicherheitsdatenblatt

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Handelsname: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Fortsetzung von Seite 6)

· 14.3 Transportgefahrenklassen
· ADR, IMDG, IATA


· Klasse	3 Entzündbare flüssige Stoffe
· Gefahrzettel	3

· 14.4 Verpackungsgruppe
· ADR, IMDG, IATA II

· 14.5 Umweltgefahren:
· Marine pollutant: Nein

· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender

· Kemler-Zahl:	Achtung: Entzündbare flüssige Stoffe
· EMS-Nummer:	33
	F-E,S-D

· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens 73/78 und gemäß IBC-Code

Nicht anwendbar.

· Transport/weitere Angaben:
· ADR

· Begrenzte Menge (LQ)	1L
· Freigestellte Mengen (EQ)	Code: E2 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 500 ml
· Beförderungskategorie	2
· Tunnelbeschränkungscode	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 (ETHYLALKOHOL), 3, II

ABSCHNITT 15: Rechtsvorschriften

· 15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch
· Nationale Vorschriften:
· Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV): Leichtentzündlich

· Technische Anleitung Luft:

Klasse	Anteil in %
NK	100,0

· Wassergefährdungsklasse: WGK 1 (Listeneinstufung): schwach wassergefährdend.

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt
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(Fortsetzung von Seite 7)

· **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· **Abkürzungen und Akronyme:**

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

DE

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

Revisione: 14.05.2015

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Articolo numero:** 15055, 15058, 15056

· **Numero CAS:**

64-17-5

· **Numeri CE:**

200-578-6

· **Numero indice:**

603-002-00-5

· **1.2 Usi pertinenti identificati della sostanza o miscela e usi sconsigliati** Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 2 H225 Liquido e vapori facilmente infiammabili.



GHS07

Acute Tox. 4 H302 Nocivo se ingerito.

Acute Tox. 4 H312 Nocivo per contatto con la pelle.

Skin Irrit. 2 H315 Provoca irritazione cutanea.

· **2.2 Elementi dell'etichetta**

· **Etichettatura secondo il regolamento (CE) n. 1272/2008**

La sostanza è classificata ed etichettata conformemente al regolamento CLP.

(continua a pagina 2)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

Revisione: 14.05.2015

Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 1)

· **Pittogrammi di pericolo**



GHS02 GHS07

· **Avvertenza Pericolo**

· **Indicazioni di pericolo**

- H225 Liquido e vapori facilmente infiammabili.
H302+H312 Nocivo se ingerito o a contatto con la pelle.
H315 Provoca irritazione cutanea.

· **Consigli di prudenza**

- P210 Tenere lontano da fonti di calore/scintille/fiamme libere/superfici riscaldate. - Non fumare.
P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione/a prova di esplosione.
P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.
P303+P361+P353 **IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.**
P322 Misure specifiche (vedere su questa etichetta).
P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

- **PBT:** Non applicabile.
· **vPvB:** Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· **3.1 Caratteristiche chimiche: Sostanze**

- **Numero CAS**
64-17-5 etanolo
· **Numeroli di identificazione**
· **Numeri CE:** 200-578-6
· **Numero indice:** 603-002-00-5

SEZIONE 4: Misure di primo soccorso

· **4.1 Descrizione delle misure di primo soccorso**

- **Inalazione:** Portare in zona ben areata, in caso di disturbi consultare il medico.
· **Contatto con la pelle:** Generalmente il prodotto non è irritante per la pelle.
· **Contatto con gli occhi:**
Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte Se persiste il dolore consultare il medico.
· **Ingestione:** Se il dolore persiste consultare il medico.
· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.
· **4.3 Indicazione della eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
Non sono disponibili altre informazioni.

(continua a pagina 3)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

Revisione: 14.05.2015

Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 2)

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:**
CO2, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** *Non sono disponibili altre informazioni.*
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** *Non sono richiesti provvedimenti particolari.*

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:**
*Diluire abbondantemente con acqua.
 Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.*
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**
*Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
 Provvedere ad una sufficiente areazione.*
- **6.4 Riferimento ad altre sezioni**
*Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.
 Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
 Per informazioni relative allo smaltimento vedere Capitolo 13.*

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
*Accurata ventilazione/aspirazione nei luoghi di lavoro.
 Evitare la formazione di aerosol.*
- **Indicazioni in caso di incendio ed esplosione:**
*Tenere lontano da fonti di calore, non fumare.
 Proteggere dal calore.
 Adottare provvedimenti contro cariche elettrostatiche.*
- **7.2 Condizioni per l'immagazzinamento sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** *Conservare in ambiente fresco.*
- **Indicazioni sullo stoccaggio misto:** *Non necessario.*
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**
*Mantenere i recipienti ermeticamente chiusi.
 Conservare in luogo fresco e asciutto in fusti ben chiusi.
 Proteggere dal calore e dai raggi diretti del sole.*
- **7.3 Usi finali specifici** *Non sono disponibili altre informazioni.*

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** *Nessun dato ulteriore, vedere punto 7.*

(continua a pagina 4)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

Revisione: 14.05.2015

Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 3)

· **8.1 Parametri di controllo**

· **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**

64-17-5 etanolo

TWA	Valore a breve termine: 1884 mg/m ³ , 1000 ppm
A3	

· **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

· **8.2 Controlli dell'esposizione**

· **Mezzi protettivi individuali:**

· **Norme generali protettive e di igiene del lavoro:**

Tenere lontano da cibo, bevande e foraggi.

Togliere immediatamente gli abiti contaminati.

Lavarsi le mani prima dell'intervallo o a lavoro terminato.

Evitare il contatto con gli occhi.

Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

· **Guanti protettivi:**

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

· **Tempo di permeazione del materiale dei guanti**

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· **Occhiali protettivi:**



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

Forma: Liquido

Colore: Incolore

· **Odore:** Simile all'alcool

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

Temperatura di fusione/ambito di fusione: -114,5 °C

Temperatura di ebollizione/ambito di ebollizione: 79 °C

· **Punto di infiammabilità:** 13 °C

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

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Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 4)

· Infiammabilità (solido, gassoso):	Non applicabile.
· Temperatura di accensione:	425 °C
· Temperatura di decomposizione:	Non definito.
· Autoaccensione:	Non definito.
· Pericolo di esplosione:	Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.
· Limiti di infiammabilità:	
Inferiore:	3,5 Vol %
Superiore:	15 Vol %
· Tensione di vapore a 20 °C:	59 hPa
· Densità a 20 °C:	0,789 g/cm ³
· Densità relativa	Non definito.
· Densità del vapore	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua a 20 °C:	1 g/l
· Coefficiente di distribuzione (n-Octanol/acqua):	Non definito.
· Viscosità:	
Dinamica:	Non definito.
Cinematica:	Non definito.
· Tenore del solvente:	
Solventi organici:	100,0 %
VOC (CE)	100,00 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività**
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta:**

· Valori LD/LC50 rilevanti per la classificazione:		
64-17-5 etanolo		
Orale	LD50	7060 mg/kg (rat)
Per inalazione	LC50/4 h	20000 mg/l (rat)

(continua a pagina 6)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

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Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 5)

- **Irritabilità primaria:**
- **sulla pelle:** Non ha effetti irritanti.
- **sugli occhi:** Irritante.
- **Sensibilizzazione:** Non si conoscono effetti sensibilizzanti.


SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 1 (D) (Classif. secondo le liste): poco pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|------------------------------|
| · 14.1 Numero ONU | |
| · ADR, IMDG, IATA | UN1170 |
| · 14.2 Nome di spedizione dell'ONU | |
| · ADR | 1170 ETANOLO (ALCOL ETILICO) |
| · IMDG | ETHANOL (ETHYL ALCOHOL) |
| · IATA | ETHANOL |
| · 14.3 Classi di pericolo connesso al trasporto | |
| · ADR, IMDG, IATA | |
|  | |
| · Classe | 3 Liquidi infiammabili |
| · Etichetta | 3 |
| · 14.4 Gruppo di imballaggio | |
| · ADR, IMDG, IATA | II |

(continua a pagina 7)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 14.05.2015

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Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Segue da pagina 6)

· 14.5 Pericoli per l'ambiente:	
· Marine pollutant:	No
· 14.6 Precauzioni speciali per gli utilizzatori	Attenzione: Liquidi infiammabili
· Numero Kemler:	33
· Numero EMS:	F-E,S-D
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL 73/78 ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	1L
· Quantità esenti (EQ)	Codice: E2 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 500 ml
· Categoria di trasporto	2
· Codice di restrizione in galleria	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, ETANOLO (ALCOL ETILICO), 3, II

SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Norme e legislazione su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Disposizioni nazionali:**

· **Istruzione tecnica aria:**

Classe	quota in %
NC	100,0

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

· **Abbreviazioni e acronimi:**

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

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안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**
- 상품번호: 15055, 15058, 15056
- CAS-번호
64-17-5
- EC 의번호:
200-578-6
- 색인 번호:
603-002-00-5
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성.위험성

· 순물질 또는 혼합물의 분류



화염

인화성 액체 구분2

H225 고인화성 액체 및 증기



심한 눈 손상/자극성 구분2 H319 눈에 심한 자극을 일으킴

· 라벨표기 요소

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

(2 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(1 쪽부터계속)

· **그림문자**



GHS02 GHS07

- **신호어 위험**
- **유해.위험 문구**
고인화성 액체 및 증기
눈에 심한 자극을 일으킴
- **예방조치 문구**
열·스파크·화염·고열로부터 멀리하시오 – 금연
폭발 방지용 전기·환기·조명·장비를 사용하시오.
(보호장갑·보호의·보안경·안면보호구)를(을) 착용하시오.
피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나제거하시오. 피부를 물로 씻으시오/샤워하시오.
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
- **기타 유해성**
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 화학물질
- **CAS-번호표시**
64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055
- **식별 번호**
- **EC 의번호:** 200-578-6
- **색인 번호:** 603-002-00-5

4 응급조치 요령

- **응급조치요령 내용**
- **흡입했을 때:** 신선한 공기를 쐬고, 통증이 있을 때는 의료진의 도움을 구한다.
- **피부에 접촉했을 때:** 일반적으로 이제품은 피부에 자극적이지 않다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇분동안 씻어내고나서, 증상이 지속될 경우에는 의사와 상담한다
- **먹었을 때:** 증상이 지속될 경우에는 의사와 상담한다.
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처리 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

5 폭발.화재시 대처방법

- **소화제**
- **적절한 소화제:**
이산화탄소, 진화용 석회 가루 또는 물 방사를 사용하고, 더큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.

(3 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(2 쪽부터계속)

- 소방관에 대한 권고사항
- 화재 진압 시 착용할 보호구 및 예방조치: 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급처치 절차 안전장비 착용하고, 무방비의 사람은 격리시킨다.
- 환경 관련 예방조치:
많은 물로 희석시킨다.
하수도망/해수면위의물/지하수로도달하지않게한다.
- 밀폐 및 정화 방법과 소재:
액체가 혼합된 물질(모래, 규조토, 산성결합물, 일반결합물, 톱밥)에 흡입되도록 한다.
충분한 환기가 되도록 한다.
- 타 섹션 참조
안전관리에 대한 정보는 제7 장을 참고하십시오.
개인보호장비에 대한 정보는 제8 장을 참고하십시오.
쓰레기처리에 대한 정보는 제13 장을 참고하십시오.

7 취급 및 저장방법

- 안전 취급을 위한 예방조치
작업장에서는통풍이잘 되고/습기제거가잘 되게주의한다.
연무질이형성되는것을피한다.
- 화재 및 폭발 사고 예방대책에 관한 정보:
발화요소는 멀리둔다.금연.
열로부터보호한다.
정전기의 충전으로부터 보호한다.
- 혼합위험성 등 안전 저장 조건
- 보관:
안전한 저장 방법: 차가운 장소에 보관한다.
하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음
- 보관 조건에 관한 추가적인 정보:
용기를새지않게밀폐한채보관한다.
밀폐된 용기속에서늘 하고 건조 하게 보관 한다.
열이나직사광선으로부터보호한다.
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이상 의 자료는 없음. 항목 7 을 참고하십시오.
- 통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

TLV (ROK)	장기간의값: 1900 mg/m ³ , 1000 ppm
PEL (USA)	장기간의값: 1900 mg/m ³ , 1000 ppm
REL (USA)	장기간의값: 1900 mg/m ³ , 1000 ppm
TLV (USA)	단기간의값: 1880 mg/m ³ , 1000 ppm

(4 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(3 쪽부터계속)

- **추가 정보:** 제조할 당시에 유효한 목록을 기초로 사용했다.
- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.
 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
 휴식 전이나 작업이 끝날때마다 손을 씻는다.
 눈과의 접촉을 피한다.
 눈과 피부와의 접촉은 피한다.
- **호흡기 보호:**
 단 시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.
- **손 보호:**
 장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.
- **장갑의재료**
 적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업자에따라서도다르게선정되어야한다.
- **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.
- **눈 보호:**



꼭조이는보안경

9 물리화학적 특성

- **기본 물리 및 화학적 특성에 대한 정보**
- **일반정보**
- **외형**

· 물리적 상태:	액체
· 색:	색소가없는
· 냄새:	알코올종류의
· 후각역치	알맞지않다.
- pH: 알맞지않다.
- **상태변화**

· 녹는점/어는점:	-114.5 °C
· 초기 끓는점과 끓는점 범위:	79 °C
- 인화점: 13 °C
- 인화성(고체, 기체): 해당사항 없음.
- 점화온도: 425 °C
- 분해 온도: 알맞지않다.
- 자기점화: 알맞지않다.
- **폭발위험:** 이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.

(5 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(4 쪽부터계속)

· 인화 또는 폭발 범위의 상한/하한 아래로:	3.5 Vol %
위로:	15 Vol %
· 증기압 의경우 20 °C:	59 hPa
· 밀도 의경우 20 °C:	0.789 g/cm ³
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도: 물 의경우 20 °C:	1 g/l
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학성:	알맞지않다.
동점성:	알맞지않다.
· 용매내용물 유기용매:	100.0 %
VOC (EU)	100.00 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한 반응으로는 알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은 알려지지않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:

64-17-5 Ethyl Alcohol, Absolute, 200 Proof
Reagent, ACS (Ethanol)
15055

구강의	LD50	7060 mg/kg (rat)
흡입의	LC50/4 h	20000 mg/l (rat)

- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 무자극
- 심한 눈 손상 또는 자극성: 자극
- 감각화: 민감한영향이없는것으로알려져있다.

KR

(6 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(5 쪽부터계속)


12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보:**
- **일반 특징:**
수질오염등급 1 (목록분류): 약하게수질오염이된
희석시키지않은채대량으로지하수나, 하천으로그리고하수도망에도달하지않게한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- **비위생적 포장:**
- **권고:** 당국의지침에입각한쓰레기처리.
- **추천 세정제:** 경우에따라서세제가첨가된물

14 운송에 필요한 정보

<ul style="list-style-type: none"> · 유엔 번호 · ADR, IMDG, IATA 	<p style="text-align: center;">UN1170</p>
<ul style="list-style-type: none"> · UN 적정 선적명 · ADR · IMDG · IATA 	<p style="text-align: center;">1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL</p>
<ul style="list-style-type: none"> · 교통 위험 클래스 · ADR, IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div>	<ul style="list-style-type: none"> · 등급 · 위험물 라벨 <p style="text-align: center;">3 발화성용액 3</p>
<ul style="list-style-type: none"> · 용기등급 · ADR, IMDG, IATA 	<p style="text-align: center;">II</p>
<ul style="list-style-type: none"> · 환경적 유해물질: · 해양오염물질: 	<p style="text-align: center;">아니오</p>
<ul style="list-style-type: none"> · 이용자 특별 예방조치 · 위험 코드: 	<p style="text-align: center;">경고: 발화성용액 33</p>

(7 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(6 쪽부터계속)

· EMS-번호:	F-E,S-D
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· 운 송/추 가 정 보:	
· ADR	
· 한정 수량 (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 운 송 구 분	2
· 터널 제한 코드	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 "모범 규제":	UN1170, ETHANOL (ETHYL ALCOHOL), 3, II

15 법적 규제현황

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	KE-13217

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 위험 도표



GHS02 GHS07

· 표지어 위험

· 위험 문구

고인화성 액체 및 증기
눈에 심한 자극을 일으킴

· 주의 문구

열·스파크·화염·고열로부터 멀리하시오 - 금연
폭발 방지용 전기·환기·조명·장비를 사용하시오.
(보호장갑·보호의·보안경·안면보호구)를(을) 착용하시오.
피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나제거하시오. 피부를 물로 씻으시오/샤워하시오.
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

KR

(8 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.05.14

개정: 2015.05.14

제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(7 쪽부터계속)

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은
기술헌하지않았으며계약적인법률관계에기반을두고있지도않다

- **최초 작성일자:** 2015.05.14
- **개정 횟수 및 최종 개정일자:** 1 / 2015.05.14
- **약어와 두문자어:**

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

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

인화성 액체 구분2: Flammable liquids, Hazard Category 2

심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2

KR

Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Código do produto:** 15055, 15058, 15056
- **Nº CAS:**
64-17-5
- **Número CE:**
200-578-6
- **Número de índice:**
603-002-00-5
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS02 chama

Flam. Liq. 2 H225 Líquido e vapor facilmente inflamáveis.



GHS07

Acute Tox. 4 H302 Nocivo por ingestão.
Acute Tox. 4 H312 Nocivo em contacto com a pele.
Skin Irrit. 2 H315 Provoca irritação cutânea.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**
A substância classificou-se e está etiquetado em conformidade com o regulamento CLP.
- **Pictogramas de perigo**



GHS02 GHS07

- **Palavra-sinal Perigo**

(continuação na página 2)

Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(continuação da página 1)

- **Frases de perigo**

- H225 Líquido e vapor facilmente inflamáveis.
- H302+H312 Nocivo por ingestão ou contacto com a pele.
- H315 Provoca irritação cutânea.

- **Frases de prudência**

- P210 Manter afastado do calor/faísca/chama aberta/superfícies quentes. - Não fumar.
- P241 Utilizar equipamento eléctrico/de ventilação/de iluminação/à prova de explosão.
- P280 Usar luvas de protecção/vestuário de protecção/protecção ocular/protecção facial.
- P303+P361+P353 **SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo):** despir/retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.
- P322 Medidas específicas (ver no presente rótulo).
- P501 Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.

- **2.3 Outros perigos**

- **Resultados da avaliação PBT e mPmB**

- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

SECÇÃO 3: Composição/informação sobre os componentes

- **3.1 Caracterização química: Substâncias**

- **Designação CAS n.º**
64-17-5 etanol
- **Número(s) de identificação**
- **Número CE:** 200-578-6
- **Número de índice:** 603-002-00-5

SECÇÃO 4: Primeiros socorros

- **4.1 Descrição das medidas de primeiros socorros**

- **Em caso de inalação:** Entrada de ar fresco; em caso de queixas consultar o médico.
- **Em caso de contacto com a pele:** Em geral o produto não é irritante para a pele.
- **Em caso de contacto com os olhos:**
Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.
- **Em caso de ingestão:** Se os sintomas persistirem, consultar o médico.

- **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**

Não existe mais nenhuma informação relevante disponível.

- **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**

Não existe mais nenhuma informação relevante disponível.

SECÇÃO 5: Medidas de combate a incêndios

- **5.1 Meios de extinção**

- **Meios adequados de extinção:**

CO₂, pó extintor ou jacto de água. Um incêndio de grandes dimensões deve ser combatido com jacto de água ou espuma resistente ao álcool.

- **5.2 Perigos especiais decorrentes da substância ou mistura**

Não existe mais nenhuma informação relevante disponível.

(continuação na página 3)

Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(continuação da página 2)

- **5.3 Recomendações para o pessoal de combate a incêndios**
- **Equipamento especial de protecção:** Não são necessárias medidas especiais.

SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência**
Usar equipamento de protecção. Manter as pessoas desprotegidas afastadas.
- **6.2 Precauções a nível ambiental:**
Diluir em bastante água.
Evitar que penetre na canalização / águas superficiais / águas subterrâneas.
- **6.3 Métodos e materiais de confinamento e limpeza:**
Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).
Assegurar uma ventilação adequada.
- **6.4 Remissão para outras secções**
Para informações sobre uma manipulação segura, ver o capítulo 7.
Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.
Para informações referentes à eliminação residual, ver o capítulo 13.

SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**
Assegurar uma boa ventilação / exaustão no local de trabalho.
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:**
Manter afastado de fontes de ignição - não fumar.
Proteger do calor.
Proteger contra descargas electrostáticas.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Armazenar num local fresco.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:**
Manter o recipiente hermeticamente fechado.
Armazenar em recipientes bem fechados, em local fresco e seco.
Proteger do calor e da radiação directa do sol.
- **7.3 Utilizações finais específicas** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 8: Controlo da exposição/protecção individual

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.

· 8.1 Parâmetros de controlo

- **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**

64-17-5 etanol

VLE	Valor para exposição longa: 1000 ppm
	A4; ; Irritação ocular, do TRS; lesão do SNC

- **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.

(continuação na página 4)

Ficha de dados de segurança

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data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(continuação da página 3)

- **8.2 Controlo da exposição**
- **Equipamento de protecção individual:**
- **Medidas gerais de protecção e higiene:**
Manter afastado de alimentos, bebidas e forragens.
Despir imediatamente a roupa contaminada e embebida.
Lavar as mãos antes das pausas e no fim do trabalho.
Evitar o contacto com os olhos.
Evitar o contacto com os olhos e com a pele.
- **Protecção respiratória:**
Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.
- **Protecção das mãos:**
O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.
Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.
Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.
- **Material das luvas**
A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante.
- **Tempo de penetração no material das luvas**
Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.
- **Protecção dos olhos:**



Óculos de protecção totalmente fechados

SECÇÃO 9: Propriedades físicas e químicas

- **9.1 Informações sobre propriedades físicas e químicas de base**
- **Informações gerais**
- **Aspecto:**
- **Forma:** Líquido
- **Cor:** Incolor
- **Odor:** tipo álcool
- **Límiar olfactivo:** Não classificado.
- **valor pH:** Não classificado.
- **Mudança do estado:**
- **Ponto / intervalo de fusão:** -114,5 °C
- **Ponto / intervalo de ebulição:** 79 °C
- **Ponto de inflamação:** 13 °C
- **Inflamabilidade (sólido, gás):** Não aplicável.
- **Temperatura de ignição:** 425 °C
- **Temperatura de decomposição:** Não classificado.
- **Auto-inflamabilidade:** Não classificado.
- **Perigos de explosão:** O produto não é explosivo. Contudo, é possível a formação de misturas explosivas ar/vapor.

(continuação na página 5)

Ficha de dados de segurança
Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(continuação da página 4)

· Limites de explosão:	
Inferior:	3,5 Vol %
Superior:	15 Vol %
· Pressão de vapor em 20 °C:	59 hPa
· Densidade em 20 °C:	0,789 g/cm ³
· Densidade relativa	Não classificado.
· Densidade de vapor	Não classificado.
· Velocidade de evaporação	Não classificado.
· Solubilidade em / miscibilidade com água em 20 °C:	1 g/l
· Coefficiente de distribuição (n-octanol/água):	Não classificado.
· Viscosidade:	
Dinâmico:	Não classificado.
Cinemático:	Não classificado.
· Percentagem de solvente:	
Solventes orgânicos:	100,0 %
VOC (UE)	100,00 %
· 9.2 Outras informações	Não existe mais nenhuma informação relevante disponível.

SECÇÃO 10: Estabilidade e reactividade

- **10.1 Reactividade**
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reacções perigosas** Não se conhecem reacções perigosas.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

SECÇÃO 11: Informação toxicológica

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda:**

· **Valores LD/LC50 relevantes para a classificação:**

64-17-5 etanol

por via oral	LD50	7060 mg/kg (rat)
por inalação	LC50/4 h	20000 mg/l (rat)

- **Efeito de irritabilidade primário:**
- **sobre a pele:** Não irritante.
- **sobre os olhos:** Efeito irritante.
- **sensibilização:** Não são conhecidos efeitos sensibilizantes.

SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.

(continuação na página 6)

Ficha de dados de segurança
Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF


(continuação da página 5)

- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:**
Classe de perigo para a água 1 (D) (classificação pelas listas): pouco perigoso para a água
Não deixar chegar substâncias concentradas, ou seja quantidades grandes, às águas subterrâneas, aos cursos de água ou à canalização.
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

SECÇÃO 14: Informações relativas ao transporte

- | | |
|---|--|
| · 14.1 N° UN
· ADR, IMDG, IATA | UN1170 |
| · 14.2 Designação oficial de transporte da ONU
· ADR
· IMDG
· IATA | 1170 ETANOL (ÁLCOOL ETÍLICO)
ETHANOL (ETHYL ALCOHOL)
ETHANOL |
| · 14.3 Classes de perigo para efeitos de transporte
· ADR, IMDG, IATA | |
|  | |
| · Classe
· Rótulo | 3 Líquidos inflamáveis
3 |
| · 14.4 Tipo de embalagem
· ADR, IMDG, IATA | II |
| · 14.5 Perigos para o ambiente:
· Poluente das águas: | Não |
| · 14.6 Precauções especiais para o utilizador
· N° Kemler:
· N° EMS: | Atenção: Líquidos inflamáveis
33
F-E,S-D |
| · 14.7 Transporte a granel em conformidade com o anexo II da Convenção Marpol 73/78 e o Código IBC | Não aplicável. |

(continuação na página 7)

Ficha de dados de segurança
Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 14.05.2015

Revisão: 14.05.2015

Nome comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(continuação da página 6)

· Transporte/outras informações:

· ADR

· **Quantidades Limitadas (LQ)**

1L

· **Quantidades exceptuadas (EQ)**

Código: E2

Quantidade líquida máxima por embalagem interior: 30 ml

Quantidade líquida máxima por embalagem exterior: 500 ml

· **Categoria de transporte**

2

· **Código de restrição em túneis**

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, ETANOL (ÁLCOOL ETÍLICO), 3, II

SECÇÃO 15: Informação sobre regulamentação

· **15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente**

Não existe mais nenhuma informação relevante disponível.

· **15.2 Avaliação da segurança química:** Não foi realizada nenhuma Avaliação de Segurança Química.

SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

· Abreviaturas e acrónimos:

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

· **Nombre comercial:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

· **Número del artículo:** 15055, 15058, 15056

· **Número CAS:**

64-17-5

· **Número CE:**

200-578-6

· **Número de clasificación:**

603-002-00-5

· **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· **1.3 Datos del proveedor de la ficha de datos de seguridad**

· **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· **1.4 Teléfono de emergencia:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· **2.1 Clasificación de la sustancia o de la mezcla**

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Flam. Liq. 2 H225 Líquido y vapores muy inflamables.



GHS07

Acute Tox. 4 H302 Nocivo en caso de ingestión.

Acute Tox. 4 H312 Nocivo en contacto con la piel.

Skin Irrit. 2 H315 Provoca irritación cutánea.

· **2.2 Elementos de la etiqueta**

· **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(se continua en página 1)

· **Pictogramas de peligro**

GHS02 GHS07

· **Palabra de advertencia Peligro**· **Indicaciones de peligro**

H225 Líquido y vapores muy inflamables.

H302+H312 Nocivo en caso de ingestión o en contacto con la piel.

H315 Provoca irritación cutánea.

· **Consejos de prudencia**

P210 Mantener alejado de fuentes de calor, chispas, llama abierta o superficies calientes. - No fumar.

P241 Utilizar un material eléctrico, de ventilación o de iluminación/antideflagrante.

P280 Llevar guantes/prendas/gafas/máscara de protección.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitarse inmediatamente las prendas contaminadas. Aclararse la piel con agua o ducharse.

P322 Se necesitan medidas específicas (ver en esta etiqueta).

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· **2.3 Otros peligros**· **Resultados de la valoración PBT y mPmB**· **PBT:** No aplicable.· **mPmB:** No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· **3.1 Caracterización química: Sustancias**· **Denominación N° CAS**

64-17-5 etanol

· **Número(s) de identificación**· **Número CE:** 200-578-6· **Número de clasificación:** 603-002-00-5

SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**· **En caso de inhalación del producto:** Suministrar aire fresco. En caso de trastornos, consultar al médico.· **En caso de contacto con la piel:** Por regla general, el producto no irrita la piel.· **En caso de con los ojos:**

Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

· **En caso de ingestión:** Consultar un médico si los trastornos persisten.· **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.· **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**

No existen más datos relevantes disponibles.

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(se continua en página 3)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(se continua en página 2)

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:**
CO₂, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**
Diluir con mucha agua.
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:**
Mantener alejadas las fuentes de encendido. No fumar.
Proteger del calor.
Tomar medidas contra las cargas electrostáticas.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** Almacenar en un lugar fresco.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
Almacenarlo en envases bien cerrados en un lugar fresco y seco.
Proteger del calor y de la luz directa del sol.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
Sin datos adicionales, ver punto 7.

(se continua en página 4)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(se continua en página 3)

· 8.1 Parámetros de control

· Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:

64-17-5 etanol

LEP	Valor de corta duración: 1910 mg/m ³ , 1000 ppm
s	

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· 8.2 Controles de la exposición

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

· **Protección de manos:**

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

· 9.1 Información sobre propiedades físicas y químicas básicas

· **Datos generales**

· **Aspecto:**

Forma: Líquido

Color: Incoloro

· **Olor:** Similar al del alcohol

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

Punto de fusión /campo de fusión: -114,5 °C

Punto de ebullición /campo de ebullición: 79 °C

· **Punto de inflamación:** 13 °C

(se continua en página 5)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: **ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**

(se continua en página 4)

· Inflamabilidad (sólido, gaseiforme):	No aplicable.
· Temperatura de ignición:	425 °C
· Temperatura de descomposición:	No determinado.
· Autoinflamabilidad:	No determinado.
· Peligro de explosión:	El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.
· Límites de explosión:	
Inferior:	3,5 Vol %
Superior:	15 Vol %
· Presión de vapor a 20 °C:	59 hPa
· Densidad a 20 °C:	0,789 g/cm ³
· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Velocidad de evaporación	No determinado.
· Solubilidad en / miscibilidad con agua a 20 °C:	1 g/l
· Coefficiente de reparto (n-octanol/agua):	No determinado.
· Viscosidad:	
Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente:	
Disolventes orgánicos:	100,0 %
VOC (CE)	100,00 %
· 9.2 Información adicional	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad**
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda:**

· **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

64-17-5 etanol

Oral	LD50	7060 mg/kg (rat)
Inhalatorio	LC50/4 h	20000 mg/l (rat)

(se continua en página 6)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(se continua en página 5)

- **Efecto estimulante primario:**
- **en la piel:** No produce irritaciones.
- **en el ojo:** Produce irritaciones.
- **Sensibilización:** No se conoce ningún efecto sensibilizante.


SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 1 (clasificación de listas): escasamente peligroso para el agua
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

SECCIÓN 14: Información relativa al transporte

- **14.1 Número UN**
- **ADR, IMDG, IATA** UN1170
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1170 ETANOL (ALCOHOL ETÍLICO)
- **IMDG** ETHANOL (ETHYL ALCOHOL)
- **IATA** ETHANOL
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG, IATA**
- 
- **Clase** 3 Líquidos inflamables
- **Etiqueta** 3

(se continua en página 7)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 14.05.2015

Revisión: 14.05.2015

Nombre comercial: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(se continua en página 6)

· 14.4 Grupo de embalaje · ADR, IMDG, IATA	II
· 14.5 Peligros para el medio ambiente: · Contaminante marino:	No
· 14.6 Precauciones particulares para los usuarios · Número Kemler: · Número EMS:	<i>Atención: Líquidos inflamables</i> 33 F-E,S-D
· 14.7 Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC	<i>No aplicable.</i>
· Transporte/datos adicionales:	
· ADR · Cantidades limitadas (LQ) · Cantidades exceptuadas (EQ)	1L Código: E2 <i>Cantidad neta máxima por envase interior: 30 ml</i> <i>Cantidad neta máxima por embalaje exterior: 500 ml</i>
· Categoría de transporte · Código de restricción del túnel	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 500 ml</i>
· "Reglamentación Modelo" de la UNECE:	UN1170, ETANOL (ALCOHOL ETÍLICO), 3, II

SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
No existen más datos relevantes disponibles.
- **15.2 Evaluación de la seguridad química:** *Una evaluación de la seguridad química no se ha llevado a cabo.*

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

- **Abreviaturas y acrónimos:**
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2