

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/30/2017

Reviewed on 08/30/2017

1 Identification

- **Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056, 15055-SP
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **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.

.....

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
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Trade name: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

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· **Hazard pictograms**



· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Ethyl Alcohol, denatured

· **Hazard statements**

Highly flammable liquid and vapor.

Harmful if swallowed or in contact with skin.

Causes skin and eye irritation.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

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

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

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- **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, denatured
- **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.
- **Information for 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.

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· Protective Action Criteria for Chemicals

· PAC-1:	1,800 ppm
· PAC-2:	3300* ppm
· PAC-3:	15000* ppm

7 Handling and storage

- **Handling:**
- **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.
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, denatured	
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.

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

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· **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

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

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

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	-114.5 °C (-174 °F)
Boiling point/Boiling range:	78 °C (172 °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.

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- | | |
|---|--|
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water at 20 °C (68 °F): | 1.000 g/l |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic at 20 °C (68 °F): | 1.2 mPas |
| 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** No further relevant information available.
- **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, denatured

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)**

I

- **NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **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.

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

- | | |
|---|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p style="margin: 0;">UN1170</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA | <p style="margin: 0;">Ethanol</p> <p style="margin: 0;">1170 Ethanol</p> <p style="margin: 0;">ETHANOL (ETHYL ALCOHOL)</p> <p style="margin: 0;">ETHANOL</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <p style="margin: 0;">3 Flammable liquids</p> |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label | <p style="margin: 0;">3</p> |

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· ADR, IMDG, IATA



· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**
 · **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids
 · **Danger code (Kemler):** 33
 · **EMS Number:** F-E,S-D
 · **Stowage Category** A

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **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":** UN 1170 ETHANOL, 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.

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

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· **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)**

A3

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

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Ethyl Alcohol, denatured

· **Hazard statements**

Highly flammable liquid and vapor.

Harmful if swallowed or in contact with skin.

Causes skin and eye irritation.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

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

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

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

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Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **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** 08/30/2017 / -

· **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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Carc. 1A: Carcinogenicity – Category 1A

Safety Data Sheet

according to WHS Regulations

Printing date 30.08.2017

Revision: 30.08.2017

1 Identification

- **Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056, 15055-SP
- **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 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS02 flame

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



GHS08 health hazard

Carc. 1A H350 May cause cancer.

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

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GHS07

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

· **Label elements**

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02

GHS07

GHS08

· **Signal word Danger**

· **Hazard-determining components of labelling:**

Ethyl Alcohol, denatured

· **Hazard statements**

Highly flammable liquid and vapour.

Harmful if swallowed.

Harmful in contact with skin.

Causes skin irritation.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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

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· **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
64-17-5 Ethyl Alcohol, denatured
- **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.
- **Information for 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, 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.

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Printing date 30.08.2017

Revision: 30.08.2017

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

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7 Handling and Storage

- **Handling:**
- **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 and personal protection

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

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

64-17-5 Ethyl Alcohol, denatured

WES | 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.

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 30.08.2017

Revision: 30.08.2017

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

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· **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/freezing point:	-114.5 °C
· Initial boiling point and boiling range:	78 °C

· **Flash point:** 13 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** 425 °C· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Not determined.· **Explosive properties:** 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:** 1.000 g/l· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:**

· Dynamic at 20 °C:	1.2 mPas
· Kinematic:	Not determined.

· **Solvent content:**

· Organic solvents:	100.0 %
· VOC (EC)	100.00 %

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

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **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 relevant for classification:**

64-17-5 Ethyl Alcohol, denatured

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

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Carc. 1A

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **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.

AU

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Safety Data Sheet

according to WHS Regulations

Printing date 30.08.2017

Revision: 30.08.2017


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

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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

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	UN1170
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA 	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL
<ul style="list-style-type: none"> · Transport hazard class(es) · ADG, 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"> · Packing group · ADG, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: 	Not applicable.
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	Warning: Flammable liquids. 33 F-E,S-D A
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADG · Limited quantities (LQ) · Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	2 D/E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) 	1L

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

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· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

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.

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word Danger**

· **Hazard-determining components of labelling:**

Ethyl Alcohol, denatured

· **Hazard statements**

Highly flammable liquid and vapour.

Harmful if swallowed.

Harmful in contact with skin.

Causes skin irritation.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

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Safety Data Sheet according to WHS Regulations

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

(Contd. of page 8)

Store in a well-ventilated place. Keep cool.

Store locked up.

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

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t**
- **Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t**
- **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.

· **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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Carc. 1A: Carcinogenicity – Category 1A

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/30/2017

Reviewed on 08/30/2017

1 Identification

- **Product identifier**
- **Trade name:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Article number:** 15055, 15058, 15056, 15055-SP
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **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

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS08 Health hazard

Carcinogenicity - Category 1A H350 May cause cancer.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Ethyl Alcohol, denatured
- **Hazard statements**
Highly flammable liquid and vapour.
May cause cancer.

(Contd. on page 2)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/30/2017

Reviewed on 08/30/2017

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

(Contd. of page 1)

· **Precautionary statements**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Ground and bond container and receiving equipment.
- Use explosion-proof [electrical/ventilating/lighting] equipment.
- Use non-sparking tools.
- Take actions to prevent static discharges.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- IF exposed or concerned: Get medical advice/attention.
- In case of fire: Use for extinction: CO₂, powder or water spray.
- Store in a well-ventilated place. Keep cool.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**

· **WHMIS-symbols:**

- B2 - Flammable liquid
- D2B - Toxic material causing other toxic effects



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
64-17-5 Ethyl Alcohol, denatured
- **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.

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

(Contd. of page 2)

- **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.
- **Information for 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

- **Handling:**
- **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.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/30/2017

Reviewed on 08/30/2017

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

(Contd. of page 3)

· **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, denatured

EL Short-term value: 1000 ppm

EV Long-term value: 1.900 mg/m³, 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.

· **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

· **Odor threshold:** Not determined.

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

(Contd. of page 4)

· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-114.5 °C
Boiling point/Boiling range:	78 °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.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water at 20 °C:	1.000 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C:	1.2 mPas
Kinematic:	Not determined.
Organic solvents:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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.

CA
(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/30/2017

Reviewed on 08/30/2017

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

(Contd. of page 5)

11 Toxicological information

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

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

64-17-5 Ethyl Alcohol, denatured

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)**

I

- **NTP (National Toxicology Program)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **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.

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.

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(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS



Printing date 08/30/2017

Reviewed on 08/30/2017

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

(Contd. of page 6)

14 Transport information

· UN-Number	UN1170
· DOT, TDG, IMDG, IATA	
· UN proper shipping name	Ethanol
· DOT	1170 Ethanol
· 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:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· 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

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

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· **UN "Model Regulation":** UN 1170 ETHANOL, 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.

- **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.

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

Ethyl Alcohol, denatured

- **Hazard statements**

Highly flammable liquid and vapour.

May cause cancer.

- **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/ventilating/lighting] equipment.

Use non-sparking tools.

Take actions to prevent static discharges.

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

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF exposed or concerned: Get medical advice/attention.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

(Contd. of page 8)

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

· **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** 08/30/2017 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

CA

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

Printing date 30.08.2017

Revision: 30.08.2017

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, 15055-SP
- **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
- **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**



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



Eye Irrit. 2 H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** *Danger*
- **Hazard statements**
Highly flammable liquid and vapour.
Causes serious eye irritation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.08.2017

Revision: 30.08.2017

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

(Contd. of page 1)

- **Precautionary statements**
 - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 - Use explosion-proof electrical/ventilating/lighting equipment.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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, denatured
- **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.
- **Information for 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 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.

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

(Contd. of page 2)

- **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

- **Handling:**
- **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.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **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

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

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- **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/freezing point: -114.5 °C

Initial boiling point and boiling range: 78 °C

- **Flash point:** 13 °C

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** 425 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Not determined.

- **Explosive properties:** 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/cm³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water at 20 °C:**

1.000 g/l

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

- **Viscosity:**

Dynamic at 20 °C: 1.2 mPas

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

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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** No further relevant information available.
- **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 relevant for classification:**

64-17-5 Ethyl Alcohol, denatured

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

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **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.

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

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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 · ADR, IMDG, IATA	UN1170
· UN proper shipping name · ADR · IMDG · IATA	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL
· Transport hazard class(es) · ADR, IMDG, IATA	
	
· Class · Label	3 Flammable liquids. 3
· Packing group · ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Flammable liquids. 33 F-E,S-D A
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ)	1L

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

(Contd. of page 6)

· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** *Danger*
- **Hazard statements**
Highly flammable liquid and vapour.
Causes serious eye irritation.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *Substance is not listed.*
- **Seveso category** P5c **FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **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.

- **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
 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
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Flammable liquids – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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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, 15055-SP
- **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*

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

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- **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, hot surfaces, sparks, open flames and other ignition sources. 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): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
- P321 *Specific treatment (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, denatured

- **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.

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

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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, denatured

WEL Long-term value: 1920 mg/m ³ , 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
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.

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

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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/freezing point: -114.5 °C

Initial boiling point and boiling range: 78 °C

· **Flash point:** 13 °C

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

· **Ignition temperature:** 425 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** 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/cm³

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

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· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 20 °C:	1.000 g/l
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	1.2 mPas
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** No further relevant information available.
- **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**
Harmful if swallowed or in contact with skin.

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

64-17-5 Ethyl Alcohol, denatured

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

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 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

- | | |
|--|---|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN1170 |
| · 14.2 UN proper shipping name | |
| · ADR | 1170 ETHANOL (ETHYL ALCOHOL) |
| · IMDG | ETHANOL (ETHYL ALCOHOL) |
| · IATA | ETHANOL |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
| |  |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | II |
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Warning: Flammable liquids. |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E,S-D |

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

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· Stowage Category	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I Substance is not listed.**
- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t**
- **Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t**
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**
- **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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2017.08.30

在 2017.08.30 审核

1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- 商品编号: 15055, 15058, 15056, 15055-SP
- CAS 编号: 64-17-5
- 欧盟编号: 200-578-6
- 欧盟编号: 603-002-00-5
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 原材料的应用/准备工作进行 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称: 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
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码: ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危险性概述

- 紧急情况概述: 无色的, 液体, 高度易燃液体和蒸气。造成严重眼刺激。

- GHS危险性类别



火焰

易燃液体 第2类

H225 高度易燃液体和蒸气



严重眼睛损伤/眼睛刺激性 第2类 H319 造成严重眼刺激

- 标签因素
- GHS卷标元素 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。
- 图示



GHS02 GHS07

- 名称 危险
- 危险字句 高度易燃液体和蒸气

(在 2 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2017.08.30

在 2017.08.30 审核

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(在 1 页继续)

- 造成严重眼刺激
- **警戒字句**
- **预防措施**
 - 规定远离热源。禁止吸烟
 - 使用防爆的电气/通风/照明/设备
 - 戴防护手套/穿防护服/戴防护眼罩/戴防护面具
- **事故响应**
 - 如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴
 - 如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗
- **废弃处置**
 - 处置内装物/容器按照地方/区域/国家/国际规章
- **其他有害性**
 - PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果
 - PBT(残留性、生物浓缩性、毒性物质) 不适用的
 - vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

- 纯品
- CAS号 化学名, 通用名
 - 64-17-5 无水酒精
- 鉴别编号 :
- 欧盟编号: 200-578-6
- 欧盟编号: 603-002-00-5

4 急救措施

- **应急措施要领**
- **吸入:** 供给新鲜空气;如果病人感到不适时要询问医生.
- **皮肤接触:** 一般的产品不会刺激皮肤.
- **眼睛接触:** 张开眼睛在流水下冲洗数分钟. 如果症状仍然持续,请咨询医生.
- **食入:** 如果症状仍然持续,请咨询医生.
- **给医生的资料:**
- **最重要的急性症状及其影响** 无相关详细资料。
- **需要及时的医疗处理及特别处理的症状** 无相关详细资料。

5 消防措施

- **灭火方法**
- **灭火的方法和灭火剂:** 二氧化碳 (CO₂)、灭火粉末或洒水. 使用洒水或抗酒精泡沫灭火剂扑灭较大的火种.
- **特别危险性** 无相关详细资料。
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施.

6 泄漏应急处理

- **保护措施** 带上保护仪器. 让未受到保护的人们远离.
- **环境保护措施:**
 - 用大量的水进行稀释.

(在 3 页继续)

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(在 2 页继续)

切勿让其进入下水道/水面或地下水.

· 密封及净化方法和材料:

吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).
确保有足够的通风装置.

· 参照其他部分

有关安全处理的资料请参阅第 7 节.
有关个人防护装备的的资料请参阅第 8 节.
有关弃置的资料请参阅第 13 节.

7 操作处置与储存

· 操作处置

· 储存

确保工作间有良好的通风/排气装置.
防止气溶胶的形成.

· 有关火灾及防止爆炸的资料:

远离火源 - 切勿吸烟.
防热.
防静电.

· 混合危险性等安全储存条件

· 储存:

· 储存库和容器须要达到的要求: 储存在阴凉的位置.
· 有关使用一个普通的储存设施来储存的资料: 不需要.
· 有关储存条件的更多资料:
将容器密封.
储存密封的贮藏器内,并放在阴凉、干爽的位置.
免受接触热力和直接受阳光照射.
· 具体的最终用户 无相关详细资料.

8 接触控制和个体防护

· 工程控制方法: 没有进一步数据;见第 7 项.

· 控制变数

· 在工作场需要监控的限值成分

64-17-5 无水酒精

PEL (TW) | PC-TWA: 1880 mg/m³, 1000 ppm

· 额外的资料: 制作期间有效的清单将作为基础来使用.

· 泄漏控制

· 个人防护设备:

· 一般保护和卫生措施:

远离食品、饮料和饲料.
立即除去所有的不洁的和被污染的衣服.
在休息之前和工作完毕后请清洗双手.
避免和眼睛接触.
避免和眼睛及皮肤接触.

· 呼吸系统防护:

如果曾短暂接触或在低污染的情况下,请使用呼吸过滤装置. 如果曾深入或较长时间接触,请使用独立的呼吸保护装置.

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(在 3 页继续)

· 手防护:

手套的物料必须是不渗透性的, 且能抵抗该产品/物质/添加剂.

基于缺乏测试, 对于产品/制剂/化学混合物, 并不会提供手套材料的建议

选择手套材料时, 请注意材料的渗透时间, 渗透率和降解参数

· **手套材料** 选择合适的手套不单取决于材料, 亦取决于质量特征, 以及来自哪一间生产厂家

· **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

· **眼睛防护:**



密封的护目镜

9 理化特性

· 有关基本物理及化学特性的信息

· 一般说明

· 外观:

· 形状: 液体

· 颜色: 无色的

· 气味: 类似酒精

· 嗅觉阈限: 未决定.

· pH值: 未决定.

· 条件的更改

· 熔点: -114.5 °C

· 沸点/初沸点和沸程: 78 °C

· 闪点: 13 °C

· 可燃性 (固体、气体): 不适用的

· 点火温度: 425 °C

· 分解温度: 未决定.

· 自燃温度: 未决定.

· 爆炸的危险性: 该产品并非爆炸性的然而有可能形成可爆炸性的空气/蒸汽混合物

· 爆炸极限:

· 较低: 3.5 Vol %

· 较高: 15 Vol %

· 蒸气压 在 20 °C: 59 hPa

· 密度 在 20 °C: 0.789 g/cm³

· 相对密度: 未决定.

· 蒸气密度: 未决定.

· 蒸发速率: 未决定.

· 溶解性

· 水 在 20 °C: 1.000 g/l

· n-辛醇/水分配系数: 未决定.

· 黏性:

· 动态 在 20 °C: 1.2 mPas

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(在 4 页继续)

- 运动学的: 未决定.
- 有机溶剂: 100.0 %
- 其他信息 无相关详细资料。

10 稳定性和反应性

- 反应性 无相关详细资料。
- 稳定性
- 热分解/要避免的情况: 如果遵照规格使用则不会分解.
- 有害反应可能性 未有已知的危险反应.
- 应避免的条件 无相关详细资料。
- 不相容的物质: 无相关详细资料。
- 危险的分解产物: 未知有危险的分解产品.

11 毒理学信息

- 对毒性学影响的信息
- 急性毒性:

- 与分类相关的 LD/LC50 值:

64-17-5 无水酒精

口腔	LD50	7060 mg/kg (rat)
吸入	LC50/4 h	20000 mg/l (rat)

- 主要的刺激性影响:
- 皮肤: 没有刺激性影响.
- 在眼睛上面: 刺激的影响.
- 致敏作用: 没有已知的敏化影响.

12 生态学信息

- 生态毒性
- 水生毒性: 无相关详细资料。
- 持久性和降解性 无相关详细资料。
- 环境系统习性:
- 潜在的生物累积性 无相关详细资料。
- 土壤内移动性 无相关详细资料。
- 额外的生态学资料:
- 总括注解:
 - 水危害级别 1(德国规例) (评估): 对水是稍微危害的
 - 不要让未稀释或大量的产品接触地下水、水道或者污水系统.
- PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果
- PBT(残留性、生物浓缩性、毒性物质) 不适用的
- vPvB(高残留性、高生物浓缩性物质): 不适用的
- 其他副作用 无相关详细资料。

CN

(在 6 页继续)

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(在 5 页继续)

13 废弃处置

- **废弃处置方法**
- **建议:** 不能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统.
- **受污染的容器和包装:**
- **建议:** 必须根据官方的规章来丢弃.
- **建议的清洗剂:** 如有必要请使用水及清洁剂进行清洁.

14 运输信息

· 联合国危险货物编号(UN号)	UN1170
· ADR, IMDG, IATA	
· UN适当装船名	1170 乙醇
· ADR	ETHANOL (ETHYL ALCOHOL)
· IMDG	ETHANOL
· IATA	
· 运输危险等级	
· ADR, IMDG, IATA	
	
· 级别	3 易燃液体
· 标签	3
· 包装组别	II
· ADR, IMDG, IATA	
· 危害环境:	不适用的
· 用户特别预防措施	警告: 易燃液体
· 危险编码:	33
· EMS 号码:	F-E,S-D
· Stowage Category	A
· MARPOL73/78(针对船舶引起的海洋污染预防协议)附件书2及根据IBC Code(国际装船货物编码)的大量运送	不适用的
· 运输/额外的资料:	
· 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

(在 7 页继续)

CN

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· UN "标准规定": UN 1170 乙醇, 3, II

15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律
- 危险化学品安全管理条例

· 危险化学品目录

64-17-5 | 无水酒精

· 新化学物质环境管理办法

· 中国现有化学物质名录

有列出物质.

- GHS卷标元素 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

· 图示



GHS02 GHS07

- 名称 危险
- 危险字句
高度易燃液体和蒸气
造成严重眼刺激
- 警戒字句
- 预防措施
规定远离热源。禁止吸烟
使用防爆的电气/通风/照明/设备
戴防护手套/穿防护服/戴防护眼罩/戴防护面具
- 事故响应
如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴
如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗
- 废弃处置
处置内装物/容器按照地方/区域/国家/国际规章
- 化学物质安全性评价: 尚未进行化学物质安全性评价

16 其他信息

该资料是基于我们目前的知识。然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

· 缩写:

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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: 持久性生物累积性有毒物质
 vPvB: very Persistent and very Bioaccumulative
 易燃液体 第2类: Flammable liquids – Category 2
 严重眼睛损伤/眼睛刺激性 第2类: Serious eye damage/eye irritation – Category 2

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.08.2017

Revize: 30.08.2017

ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Číslo výrobku:** 15055, 15058, 15056, 15055-SP
- **Číslo CAS:**
64-17-5
- **Číslo ES:**
200-578-6
- **Indexové číslo:**
603-002-00-5
- **1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití**
Další relevantní informace nejsou k dispozici.
- **Použití látky / přípravku** Laboratorní chemikálie
- **1.3 Podrobné údaje o dodavateli bezpečnostního listu**
- **Identifikace výrobce/dovozce:**
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
- **Obor poskytující informace:** Product safety department
- **1.4 Telefonní číslo pro naléhavé situace:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ODDÍL 2: Identifikace nebezpečnosti

- **2.1 Klasifikace látky nebo směsi**
- **Klasifikace v souladu s nařízením (ES) č. 1272/2008**



GHS02 plamen

Flam. Liq. 2 H225 Vysoce hořlavá kapalina a páry.



GHS07

Acute Tox. 4 H302 Zdraví škodlivý při požití.

Acute Tox. 4 H312 Zdraví škodlivý při styku s kůží.

Skin Irrit. 2 H315 Dráždí kůži.

- **2.2 Prvky označení**
- **Označování v souladu s nařízením (ES) č. 1272/2008** Látka je klasifikována a označena podle nařízení CLP.
- **Výstražné symboly nebezpečnosti**



GHS02



GHS07

- **Signální slovo** Nebezpečí

(pokračování na straně 2)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.08.2017

Revize: 30.08.2017

Obchodní označení: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(pokračování strany 1)

- **Standardní věty o nebezpečnosti**
- H225 Vysoce hořlavá kapalina a páry.
- H302+H312 Zdraví škodlivý při požití a při styku s kůží.
- H315 Dráždí kůži.
- **Pokyny pro bezpečné zacházení**
- P210 Chraňte před teplem, horkými povrchy, jiskrami, otevřeným ohněm a jinými zdroji zapálení. Zákaz kouření.
- P241 Používejte elektrické/ventilační/osvětlovací/zařízení do výbušného prostředí.
- P280 Používejte ochranné rukavice/ochranný oděv/ochranné brýle/obličejový štít.
- P303+P361+P353 PŘI STYKU S KŮŽÍ (nebo s vlasy): Veškeré kontaminované části oděvu okamžitě svlékněte. Opláchněte kůži vodou/osprchujte.
- P321 Odborné ošetření (viz na tomto štítku).
- P501 Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.
- **2.3 Další nebezpečnost**
- **Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.

ODDÍL 3: Složení/informace o složkách

- **3.1 Chemická charakteristika: Látky**
- **Číslo CAS:**
64-17-5 ethanol
- **Identifikační číslo(číslo)**
- **Číslo ES:** 200-578-6
- **Indexové číslo:** 603-002-00-5

ODDÍL 4: Pokyny pro první pomoc

- **4.1 Popis první pomoci**
- **Při nadýchání:** Přívod čerstvého vzduchu, při obtížích vyhledat lékaře.
- **Při styku s kůží:** Tento produkt nemá všeobecně dráždicí účinek na pokožku.
- **Při zasažení očí:**
Oči s otevřenými víčky vyplachovat po více minut proudem tekoucí vody. Při přetrvávajících potížích se poradit s lékařem.
- **Při požití:** Při přetrvávajících potížích konzultovat s lékařem.
- **4.2 Nejdůležitější akutní a opožděné symptomy a účinky** Další relevantní informace nejsou k dispozici.
- **4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření**
Další relevantní informace nejsou k dispozici.

ODDÍL 5: Opatření pro hašení požáru

- **5.1 Hasiva**
- **Vhodná hasiva:**
CO₂, hasící prášek nebo rozestřikované vodní paprsky. Větší ohně zdotat rozestřikovanými vodními paprsky nebo pěnou odolnou vůči alkoholu.
- **5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** Další relevantní informace nejsou k dispozici.

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- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** Nejsou nutná žádná zvláštní opatření.

ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy**
Nosit ochrannou výstroj. Nechráněné osoby se nesmí přibližovat.
- **6.2 Opatření na ochranu životního prostředí:**
Zředit velkým množstvím vody.
Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**
Sebrat s materiály, vážícími kapaliny (písek, šterkový písek, pojidla kyselin, univerzální pojidla, piliny).
Zajistit dostatečné větrání.
- **6.4 Odkaz na jiné oddíly**
Informace o bezpečnému zacházení viz kapitola 7.
Informace o osobní ochranné výstroji viz kapitola 8.
Informace k odstranění viz kapitola 13.

ODDÍL 7: Zacházení a skladování

- **7.1 Opatření pro bezpečné zacházení**
Na pracovišti zabezpečit dobré větrání a odsávání.
Zamezit vytváření aerosolů.
- **Upozornění k ochraně před ohněm a explozí:**
Nepřibližovat se ze zápalnými zdroji - nekouřit.
Chránit před horkem.
Zajistit proti elektrostatickému náboji.
- **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**
- **Pokyny pro skladování:**
- **Požadavky na skladovací prostory a nádoby:** Skladovat na chladném místě.
- **Upozornění k hromadnému skladování:** Není nutné.
- **Další údaje k podmínkám skladování:**
Nádrž držet neprodyšně uzavřenou.
Skladovat v dobře uzavřených nádobách v chladu a suchu.
Chránit před horkem a přímým slunečním světlem.
- **7.3 Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici.

ODDÍL 8: Omezování expozice / osobní ochranné prostředky

- **Technická opatření:** Žádné další údaje, viz bod 7.

· 8.1 Kontrolní parametry

· **Kontrolní parametry:**

64-17-5 ethanol

NPK	Krátkodobá hodnota: 3000 mg/m ³ Dlouhodobá hodnota: 1000 mg/m ³
-----	--

- **Další upozornění:** Jako podklad sloužily při zhotovení platné listiny.

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- **8.2 Omezování expozice**
- **Osobní ochranné prostředky:**
- **Všeobecná ochranná a hygienická opatření:**
Zdržovat od potravin, nápojů a krmiv.
Zašpiněné, nasáknuté šaty ihned vysvléci.
Před přestávkami a po práci umýt ruce.
Zamezit styku se zrakem.
Zamezit styku s pokožkou a zrakem.
- **Ochrana dýchacích orgánů:**
Při krátkodobém nebo nízkém zatížení použít dýchací přístroj s filtrem, při intenzivním nebo delším zatížení se musí použít dýchací přístroj nezávislý na okolním vzduchu.
- **Ochrana rukou:**
Materiál rukavic musí být nepropustný a odolný proti produktu / látce / směsi.
Vzhledem k tomu, že chybí testy, není možné doporučit materiál rukavic pro produkt / přípravek / chemickou směs.
Výběr materiálu rukavic proveďte podle času průniku, permeability a degradace.
- **Materiál rukavic**
Správný výběr rukavic nezávisí jen na materiálu, ale také na dalších kritériích, která se liší podle výrobce.
- **Doba průniku materiálem rukavic**
Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.
- **Ochrana očí:**



Uzavřené ochranné brýle

ODDÍL 9: Fyzikální a chemické vlastnosti

- | | |
|---|-----------|
| · 9.1 Informace o základních fyzikálních a chemických vlastnostech | |
| · Všeobecné údaje | |
| · Vzhled: | |
| Skupenství: | Tekutina |
| Barva: | Bezbarvá |
| · Zápach: Alkoholový | |
| · Prahová hodnota zápachu: Není určeno. | |
| · Hodnota pH: Není určeno. | |
| · Změna stavu | |
| Bod tání/bod tuhnutí: | -114,5 °C |
| Počáteční bod varu a rozmezí bodu varu: | 78 °C |
| · Bod vzplanutí: 13 °C | |
| · Hořlavost (pevné látky, plyny): Nedá se použít. | |
| · Zápalná teplota: 425 °C | |
| · Teplota rozkladu: Není určeno. | |
| · Teplota samovznícení: Není určeno. | |
| · Výbušné vlastnosti: I když produktu nehrozí nebezpečí exploze, je přesto možné nebezpečí exploze ve směsi par se vzduchem. | |
| · Meze výbušnosti: | |
| Dolní mez: | 3,5 Vol % |

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Horní mez:	15 Vol %
· Tlak páry při 20 °C:	59 hPa
· Hustota při 20 °C:	0,789 g/cm ³
· Relativní hustota	Není určeno.
· Hustota páry:	Není určeno.
· Rychlost odpařování	Není určeno.
· Rozpuštnost ve / směřitelnost s vodě při 20 °C:	1,000 g/l
· Rozdělovací koeficient: n-oktanol/voda:	Není určeno.
· Viskozita:	
Dynamicky při 20 °C:	1,2 mPas
Kinematicky:	Není určeno.
· Obsah ředidel:	
Organická ředidla:	100,0 %
VOC (EC)	100,00 %
· 9.2 Další informace	Další relevantní informace nejsou k dispozici.

ODDÍL 10: Stálost a reaktivita

- **10.1 Reaktivita** Další relevantní informace nejsou k dispozici.
- **10.2 Chemická stabilita**
- **Termický rozklad / Podmínky, kterých je nutno se vyvarovat:**
Nedochází k rozkladu při doporučeném způsobu použití.
- **10.3 Možnost nebezpečných reakcí** Žádné nebezpečné reakce nejsou známy.
- **10.4 Podmínky, kterým je třeba zabránit** Další relevantní informace nejsou k dispozici.
- **10.5 Neslučitelné materiály:** Další relevantní informace nejsou k dispozici.
- **10.6 Nebezpečné produkty rozkladu:** Nejsou známy žádné nebezpečné produkty při rozkladu.

ODDÍL 11: Toxikologické informace

- **11.1 Informace o toxikologických účincích**
- **Akutní toxicita**
Zdraví škodlivý při požití a při styku s kůží.

· **Zařazení relevantní hodnoty LD/LC 50:**

64-17-5 ethanol

Orálně	LD50	7060 mg/kg (rat)
Inhalováním	LC50/4 h	20000 mg/l (rat)

- **Primární dráždivé účinky:**
- **Žíravost/dráždivost pro kůži**
Dráždí kůži.
- **Vážné poškození očí / podráždění očí** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Senzibilizace dýchacích cest / senzibilizace kůže**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)**
- **Mutagenita v zárodečných buňkách** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Karcinogenita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro reprodukci** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

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- **Toxicita pro specifické cílové orgány – jednorázová expozice**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro specifické cílové orgány – opakovaná expozice**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Nebezpečnost při vdechnutí** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

ODDÍL 12: Ekologické informace

- **12.1 Toxicita**
- **Aquatická toxicita:** Další relevantní informace nejsou k dispozici.
- **12.2 Perzistence a rozložitelnost** Další relevantní informace nejsou k dispozici.
- **12.3 Bioakumulační potenciál** Další relevantní informace nejsou k dispozici.
- **12.4 Mobilita v půdě** Další relevantní informace nejsou k dispozici.
- **Další ekologické údaje:**
- **Všeobecná upozornění:**
Třída ohrožení vody 1 (zařazení v listině): slabé ohrožení vody
Nesmí se dostat nezředitý nebo ve větším množství do spodní vody, povodí nebo kanalizace.
- **12.5 Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.
- **12.6 Jiné nepříznivé účinky** Další relevantní informace nejsou k dispozici.

ODDÍL 13: Pokyny pro odstraňování

- **13.1 Metody nakládání s odpady**
- **Doporučení:** Nesmí se odstraňovat společně s odpady z domácnosti. Nepřipustit únik do kanalizace.
- **Kontaminované obaly:**
- **Doporučení:** Odstranění podle příslušných předpisů.
- **Doporučený čisticí prostředek:** Voda, případně s přísadami čisticích prostředků.

ODDÍL 14: Informace pro přepravu

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN číslo · ADR, IMDG, IATA | <p>UN1170</p> |
| <ul style="list-style-type: none"> · 14.2 Oficiální (OSN) pojmenování pro přepravu · ADR · IMDG · IATA | <p>1170 ETHANOL (ETHYLALKOHOL)
ETHANOL (ETHYL ALCOHOL)
ETHANOL</p> |
| <ul style="list-style-type: none"> · 14.3 Třída/třídy nebezpečnosti pro přepravu · ADR, IMDG, IATA | <p>3 Hořlavé kapaliny
3</p> |



- **třída** 3 Hořlavé kapaliny
- **Etiketa** 3

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· 14.4 Obalová skupina · ADR, IMDG, IATA	II
· 14.5 Nebezpečnost pro životní prostředí:	Nedá se použít.
· 14.6 Zvláštní bezpečnostní opatření pro uživatele · Kemlerovo číslo: · EMS-skupina: · Stowage Category	Varování: Hořlavé kapaliny 33 F-E,S-D A
· 14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC	Nedá se použít.
· Přeprava/další údaje:	
· ADR · Omezené množství (LQ) · Vyňatá množství (EQ)	1L Kód: E2 Nejvyšší čisté množství na vnitřní obal: 30 ml Nejvyšší čisté množství na vnější obal: 500 ml
· Přepavní kategorie · Kód omezení pro tunely:	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYLALKOHOL), 3, II

ODDÍL 15: Informace o předpisech

- **15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi**
- **Rady 2012/18/EU**
- **Nebezpečné látky jmenovitě uvedené - PŘÍLOHA I** Látka neobsažena.
- **Kategorie Seveso P5c HOŘLAVÉ KAPALINY**
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 5.000 t**
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 50.000 t**
- **Rady (ES) č. 1907/2006 PŘÍLOHA XVII** Omezující podmínky: 3
- **15.2 Posouzení chemické bezpečnosti:** Posouzení chemické bezpečnosti nebylo provedeno.

ODDÍL 16: Další informace

Údaje se opírají o dnešní stav našich vědomostí, nepředstavují však záruku vlastností produktu a nevznikají tak žádné smluvní právní vztahy.

· **Zkratky a akronymy:**

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)

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(pokračování strany 7)

CZ

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

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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, 15055-SP

· **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

· **Inlichtinggevendende 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)

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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.

· Veiligheidsaanbevelingen

- P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.
 P241 Explosieveilige 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.
 P321 Specifieke behandeling vereist (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.

NL

(Vervolg op blz. 3)

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(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 zonnestrallen 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)

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(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 , 35 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

· **Geur:** Alcoholachtig

· **Geurdrempelwaarde:** Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

Smelt-/vriespunt: -114,5 °C

Beginkookpunt en kooktraject: 78 °C

· **Vlampunt:** 13 °C

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

· Ontvlambaarheid (vast, gas):	Niet bruikbaar.
· Ontstekingstemperatuur:	425 °C
· Ontledingstemperatuur:	Niet bepaald.
· Zelfontbrandingstemperatuur:	Niet bepaald.
· Ontploffingseigenschappen:	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:	1,000 g/l
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch bij 20 °C:	1,2 mPas
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** Geen verdere relevante informatie verkrijgbaar.
- **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**
Schadelijk bij inslikken en bij contact met de huid.

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)

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(Vervolg van blz. 5)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Sensibilisatie van de luchtwegen/de huid**
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

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): B(4) Weinig schadelijk voor in water levende organismen
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

(Vervolg op blz. 7)

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(Vervolg van blz. 6)

· **14.3 Transportgevaar(n)**

· **ADR, IMDG, IATA**



· **klasse** 3 Brandbare vloeistoffen
 · **Etiket** 3

· **14.4 Verpakkingsgroep:**

· **ADR, IMDG, IATA** II

· **14.5 Milieugevaar:** Niet bruikbaar.

· **14.6 Bijzondere voorzorgen voor de gebruiker** Waarschuwing: Brandbare vloeistoffen

· **Kemler-getal:** 33
 · **EMS-nummer:** F-E,S-D
 · **Stowage Category** A

· **14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code** Niet bruikbaar.

· **Transport/verdere gegevens:**

· **ADR**
 · **Beperkte hoeveelheden (LQ)** 1L
 · **Uitgezonderde hoeveelheden (EQ)** Code: E2
 Grootste netto hoeveelheid per binnenverpakking: 30 ml
 Grootste netto hoeveelheid per buitenverpakking: 500 ml
 · **Vervoerscategorie** 2
 · **Tunnelbeperkingscode** 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

· **VN "Model Regulation":** UN 1170 ETHANOL (ETHYLALCOHOL), 3, II

RUBRIEK 15: Regelgeving

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

· **SZW-lijst van kankerverwekkende stoffen**

De stof is aanwezig.

· **SZW-lijst van mutagene stoffen**

De stof is niet aanwezig.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

IA

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

IA

(Vervolg op blz. 8)

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(Vervolg van blz. 7)

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

x

- **Richtlijn 2012/18/EU**
- **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.
- **Seveso-categorie P5c ONTVLAMBARE VLOEISTOFFEN**
- **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 5,000 t**
- **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 50,000 t**
- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3
- **Nationale voorschriften:**
- **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen
- **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

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
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2
 Acute Tox. 4: Acute toxiciteit – Categorie 4
 Skin Irrit. 2: Huidcorrosie/irritatie – Categorie 2

NL

Ohutuskaart

Vastavalt 1907/2006/EÜ, Artikkel 31

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Läbi vaadatud: 30.08.2017

1. JAGU: Aine/segude ning äriühingu/ettevõtja identifitseerimine

- **1.1 Tootetähis**
- **Kaubanduslik nimetus:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Artikkel:** 15055, 15058, 15056, 15055-SP
- **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

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

(Jätub 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, kuumadest pindadest, sädemetest, leekidest ja muudest süüteallikatest. 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.
 - P321 Nõuab eriravi (vt käesoleval etiketil).
 - P501 Sisu/konteineri käitlus vastavuses kohalike/regionaalsete/rahvuslike/rahvusvaheliste nõuetega.
- **2.3 Muud ohud**
- **Püüvate, bioakumuleeruvate ja toksiliste ning väga püsivate ja väga bioakumuleeruvate 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 Märged 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 tuletõrjujatele**
- **Kaitsevarustus:** Erilised meetmed pole nõutavad.

EE

(Jätub lehelt 3)

Ohutuskaart

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(Jätukub lehel 2)

6. JAGU: Meetmed juhusliku sattumise korral keskkonda

- **6.1 Isikukaitsemeetmed, kaitsevahendid ja toimimine hädaolukorras**
Kandke kaitsevarustus. Hoidke eemal kaitsmata isikuid.
- **6.2 Keskkonnakaitse meetmed:**
Lahjendage suure kogusega vett.
Ei tohi sattuda kanalistsiooni / 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.

(Jätukub lehelt 4)

Ohutuskaart

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(Jätkub lehel 3)

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.

· **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**

· **Sulamis-/külmumispunkt:** -114,5 °C

· **Keemise algpunkt ja keemisvahemik:** 78 °C

· **Leekpunkt:** 13 °C

· **Süttivus (tahke, gaasiline):** Ei ole kohaldatav.

· **Süttimistemperatuur:** 425 °C

· **Lagunemistemperatuur:** Pole määratud.

· **Isesüttimistemperatuur:** Pole määratud.

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

· **Plahvatuse piirväärtused:**

· **Alumine:** 3,5 Vol %

· **Ülemine:** 15 Vol %

· **Aururõhk juures 20 °C:** 59 hPa

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

(Jätkub lehelt 5)

Ohutuskaart

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(Jätub lehel 4)

· Suhteline tihedus	Pole määratud.
· Auru tihedus	Pole määratud.
· Aurustumiskiirus:	Pole määratud.
· Lahustatavus / Segunemine	
Vesi juures 20 °C:	1,000 g/l
· Jaotustegur: n-oktanool/-vesi:	Pole määratud.
· Viskoossus:	
Dünaamiline juures 20 °C:	1,2 mPas
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 Täiendav oluline teave puudub.
- 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
- Akuutne toksilisus
Allaneelamisel või nahale sattumisel kahjulik.

· 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:
- Nahka söövitav/ärritav
Põhjustab nahaärritust.
- Rasket silmade kahjustust/ärritust põhjustav
Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- Hingamisteede või naha ülitundlikkust põhjustav
Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- Kantserogeensed, mutageensed ja reproduktiivtoksilised mõjud
- Mutageensus sugurakkudele Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- Kantserogeensus Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- Reproduktiivtoksilisus Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- Sihtorgani suhtes toksilised – ühekordne kokkupuude
Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.

(Jätub lehelt 6)

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(Jätub lehel 5)

- **Sihetorgani suhtes toksilised – korduv kokkupuude**
Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Hingamiskahjustus** Kättesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.

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
Lahjendamata toode või selle suured kogused ei tohi sattuda krundivesse, 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

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 ÜRO number · ADR, IMDG, IATA | <p>UN1170</p> |
| <ul style="list-style-type: none"> · 14.2 ÜRO veose tunnusnimetus · ADR · IMDG · IATA | <p>1170 ETANOOL (ETÜÜLALKOHOL)
ETHANOL (ETHYL ALCOHOL)
ETHANOL</p> |
| <ul style="list-style-type: none"> · 14.3 Transpordi ohuklass(id) · ADR, IMDG, IATA | <p>3 Süttimisohhtlikud vedelikud.
3</p> |



- **klass**
- **Ohtlikkusmärke**

(Jätub lehelt 7)

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(Jätub lehel 6)

· 14.4 Pakendirühm · ADR, IMDG, IATA	II
· 14.5 Keskkonnaohud:	<i>Ei ole kohaldatav.</i>
· 14.6 Eriettevaatusabinõud kasutajatele · Ohtlikkuskood (Kemler): · EMS Number: · Stowage Category	<i>Hoiatus: Süttimisohhtlikud vedelikud.</i> 33 <i>F-E,S-D</i> A
· 14.7 Transportimine mahtlastina kooskõlas MARPOLi II lisaga ja IBC koodeksiga	<i>Ei ole kohaldatav.</i>
· Transport/Lisainformatsioon:	
· ADR · Piiratud koguses (piirkogus LQ) · Erandkogused (EQ)	1L <i>Kood: E2</i> <i>Maksimaalne netokogus sisepakendi kohta: 30 ml</i> <i>Maksimaalne netokogus välispakendi kohta: 500 ml</i>
· Veo kategooria · Tunneli piirangu kood:	2 <i>D/E</i>
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L <i>Code: E2</i> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 500 ml</i>
· UN "Model Regulation":	UN 1170 ETANOOL (ETÜÜLALKOHOL), 3, II

15. JAGU: Reguleerivad õigusaktid

- **15.1 Ainete ja segude suhtes kohaldatavad ohutuse-, tervise- ja keskkonnaalased eeskirjad/õigusaktid**
- **Directiva 2012/18/UE**
- **Nimetatud ohtlikud ained - I LISA Aine ei ole nimekirjas.**
- **SEVESO kategooria P5c TULEOHTLIKUD VEDELIKUD**
- **Piirkogused (tonnides) järgmiste käitisetüüpide kohaldamiseks madalama tasandi nõuded 5.000 t**
- **Piirkogused (tonnides) järgmiste käitisetüüpide kohaldamiseks kõrgema tasandi nõuded 50.000 t**
- **MÄÄRUS (EÜ) nr 1907/2006 XVII LISA Piirangu tingimused: 3**
- **15.2 Kemikaaliohutuse hindamine: Kemikaaliohutuse hindamist ei ole läbi viidud.**

16. JAGU: Muu teave

Käesolev informatsioon põhineb meie praegustele teadmistele. 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

(Jätub lehel 8)

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LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Tuleohtlikud vedelikud – 2. kategooria
Acute Tox. 4: Äge mürgisus – 4. kategooria
Skin Irrit. 2: Nahasöövitus/-ärritus – 2. kategooria

(Jätukub lehel 7)

EE

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RUBRIQUE 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, 15055-SP

· **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

RUBRIQUE 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

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- **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 surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. 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 tous les vêtements contaminés. Rincer la peau à l'eau/Se doucher.*
- P321 *Traitement spécifique (voir sur cette étiquette).*
- P501 *Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.*

- **2.3 Autres dangers**

- **Résultats des évaluations PBT et vPvB**

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

RUBRIQUE 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

RUBRIQUE 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.

RUBRIQUE 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.

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

RUBRIQUE 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 rubriques**
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.

RUBRIQUE 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.

RUBRIQUE 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.

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- **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

RUBRIQUE 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/point de congélation:** -114,5 °C
- **Point initial d'ébullition et intervalle d'ébullition:** 78 °C
- **Point d'éclair** 13 °C
- **Inflammabilité (solide, gaz):** Non applicable.
- **Température d'inflammation:** 425 °C
- **Température de décomposition:** Non déterminé.
- **Température d'auto-inflammabilité:** Non déterminé.
- **Propriétés explosives:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.

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· 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.
· Taux d'évaporation:	Non déterminé.
· Solubilité dans/miscibilité avec l'eau à 20 °C:	1,000 g/l
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité:	
Dynamique à 20 °C:	1,2 mPas
Cinématique:	Non déterminé.
· Teneur en solvants:	
Solvants organiques:	100,0 %
VOC (CE)	100,00 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **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

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**
Nocif en cas d'ingestion ou de contact cutané.

· **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:**
- **Corrosion cutanée/irritation cutanée**
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Sensibilisation respiratoire ou cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

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- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

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

RUBRIQUE 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

RUBRIQUE 14: Informations relatives au transport

- | | |
|--|---------------------------------|
| · 14.1 Numéro ONU | |
| · ADR, IMDG, IATA | UN1170 |
| · 14.2 Désignation officielle de transport de l'ONU | |
| · ADR | 1170 ÉTHANOL (ALCOOL ÉTHYLIQUE) |
| · IMDG | ETHANOL (ETHYL ALCOHOL) |
| · IATA | ETHANOL |

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· 14.3 Classe(s) de danger pour le transport

· ADR, IMDG, IATA



· Classe 3 Liquides inflammables.
· Étiquette 3

· 14.4 Groupe d'emballage

· ADR, IMDG, IATA II

· 14.5 Dangers pour l'environnement: Non applicable.

· 14.6 Précautions particulières à prendre par l'utilisateur

Attention: Liquides inflammables.

· Indice Kemler: 33
· No EMS: F-E,S-D
· Stowage Category A

· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC

Non applicable.

· Indications complémentaires de transport:

· ADR

· Quantités limitées (LQ) 1L
· Quantités exceptées (EQ) Code: E2
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:

UN 1170 ÉTHANOL (ALCOOL ÉTHYLIQUE), 3, II

RUBRIQUE 15: Informations relatives à la réglementation

· 15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement

· Directive 2012/18/UE

· Substances dangereuses désignées - ANNEXE I la substance n'est pas comprise

· Catégorie SEVESO P5c LIQUIDES INFLAMMABLES

· Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 5.000 t

· Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 50.000 t

· RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3

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· 15.2 Évaluation de la sécurité chimique: Une évaluation de la sécurité chimique n'a pas été réalisée.**RUBRIQUE 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Liquides inflammables – Catégorie 2

Acute Tox. 4: Toxicité aiguë – Catégorie 4

Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2

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ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· **1.1 Produktidentifikator**

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

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

· **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

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org

Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h

· **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.

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Skin Irrit. 2 H315 Verursacht Hautreizungen.

- **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, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.
P241 Explosionsgeschützte elektrische Geräte/Lüftungsanlagen/Beleuchtungsanlagen verwenden.
P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.
P321 Besondere Behandlung (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:** *Frischluftezufuhr, 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.

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- **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):** Entzündbare Flüssigkeiten

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· **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
-----	---

· **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

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· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert:	Nicht bestimmt.
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	-114,5 °C
Siedebeginn und Siedebereich:	78 °C
· Flammpunkt:	13 °C
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zündtemperatur:	425 °C
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Nicht bestimmt.
· Explosive Eigenschaften:	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.
· Damfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser bei 20 °C:	1,000 g/l
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität: Dynamisch bei 20 °C:	1,2 mPas
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** Keine weiteren relevanten Informationen verfügbar.
- **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.

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ABSCHNITT 11: Toxikologische Angaben

· **11.1 Angaben zu toxikologischen Wirkungen**

· **Akute Toxizität**

Gesundheitsschädlich bei Verschlucken oder Hautkontakt.

· **Einstufungsrelevante LD/LC50-Werte:**

64-17-5 Ethanol

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

· **Primäre Reizwirkung:**

· **Ätz-/Reizwirkung auf die Haut**

Verursacht Hautreizungen.

· **Schwere Augenschädigung/-reizung** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**

· **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

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.

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· **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**
· **IMDG**
· **IATA**

1170 ETHANOL (ETHYLALKOHOL)
ETHANOL (ETHYL ALCOHOL)
ETHANOL

· **14.3 Transportgefahrenklassen**

· **ADR, IMDG, IATA**



· **Klasse**
· **Gefahrzettel**

3 Entzündbare flüssige Stoffe
3

· **14.4 Verpackungsgruppe**

· **ADR, IMDG, IATA**

II

· **14.5 Umweltgefahren:**

Nicht anwendbar.

· **14.6 Besondere Vorsichtsmaßnahmen für den Verwender**

· **Kemler-Zahl:**
· **EMS-Nummer:**
· **Stowage Category**

Achtung: Entzündbare flüssige Stoffe
33
F-E,S-D
A

· **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.

· **Transport/weitere Angaben:**

· **ADR**

· **Begrenzte Menge (LQ)**
· **Freigestellte Mengen (EQ)**

1L
Code: E2
Höchste Nettomenge je Innenverpackung: 30 ml
Höchste Nettomenge je Außenverpackung: 500 ml

· **Beförderungskategorie**
· **Tunnelbeschränkungscode**

2
D/E

· **IMDG**

· **Limited quantities (LQ)**
· **Excepted quantities (EQ)**

1L
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1170 ETHANOL (ETHYLALKOHOL), 3, II

DE

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.08.2017

überarbeitet am: 30.08.2017

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

(Fortsetzung von Seite 7)

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
 - Richtlinie 2012/18/EU
 - **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Der Stoff ist nicht enthalten.
 - **Seveso-Kategorie P5c ENTZÜNDBARE FLÜSSIGKEITEN**
 - **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 5.000 t**
 - **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 50.000 t**
 - **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII Beschränkungsbedingungen: 3**
 - **Nationale Vorschriften:**
 - **Technische Anleitung Luft:**
- | Klasse | Anteil in % |
|--------|-------------|
| NK | 100,0 |
- **Wassergefährdungsklasse: WGK 1 (Listeneinstufung): schwach wassergefährdend.**
 - **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
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2
- Acute Tox. 4: Akute Toxizität – Kategorie 4
- Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2

DE

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

Stampato il: 30.08.2017

Revisione: 30.08.2017

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, 15055-SP

· **Numero CAS:**

64-17-5

· **Numeri CE:**

200-578-6

· **Numero indice:**

603-002-00-5

· **1.2 Usi identificati pertinenti della sostanza o della 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)

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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, superfici calde, scintille, fiamme libere o altre fonti di accensione. 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): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.*
P321 *Trattamento specifico (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 dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

IT

(continua a pagina 3)

Scheda di dati di sicurezza
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(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 lo stoccaggio 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 particolari** *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
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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**

Punto di fusione/punto di congelamento: -114,5 °C

Punto di ebollizione iniziale e intervallo di ebollizione: 78 °C

(continua a pagina 5)

Scheda di dati di sicurezza
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Denominazione commerciale: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

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· Punto di infiammabilità:	13 °C
· Infiammabilità (solidi, gas):	Non applicabile.
· Temperatura di accensione:	425 °C
· Temperatura di decomposizione:	Non definito.
· Temperatura di autoaccensione:	Non definito.
· Proprietà esplosive:	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 di vapore:	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua a 20 °C:	1,000 g/l
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica a 20 °C:	1,2 mPas
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** Non sono disponibili altre informazioni.
- **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**
Nocivo se ingerito o a contatto con la pelle.

· **Valori LD/LC50 rilevanti per la classificazione:**

64-17-5 etanolo

Orale	LD50	7060 mg/kg (rat)
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(continua a pagina 6)

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Per inalazione	LC50/4 h	20000 mg/l (rat)
----------------	----------	------------------

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Sensibilizzazione respiratoria o cutanea**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

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) |

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Scheda di dati di sicurezza
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· IMDG · IATA	ETHANOL (ETHYL ALCOHOL) ETHANOL
· 14.3 Classi di pericolo connesso al trasporto · ADR, IMDG, IATA	
	
· Classe · Etichetta	3 Liquidi infiammabili 3
· 14.4 Gruppo di imballaggio · ADR, IMDG, IATA	II
· 14.5 Pericoli per l'ambiente:	Non applicabile.
· 14.6 Precauzioni speciali per gli utilizzatori · Numero Kemler: · Numero EMS: · Stowage Category	Attenzione: Liquidi infiammabili 33 F-E,S-D A
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR · Quantità limitate (LQ) · Quantità esenti (EQ)	1L Codice: E2 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 500 ml
· Categoria di trasporto · Codice di restrizione in galleria	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETANOLO (ALCOL ETILICO), 3, II

SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** La sostanza non è contenuta
- **Categoria Seveso P5c** LIQUIDI INFIAMMABILI
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore** 5.000 t
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore** 50.000 t
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3

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IT

Scheda di dati di sicurezza
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· **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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LC50: Lethal concentration, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Liquidi infiammabili – Categoria 2

Acute Tox. 4: Tossicità acuta – Categoria 4

Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2

IT

製品安全データシート

JIS Z7253 による分類

印刷日: 2017.08.30

改訂日: 2017.08.30

1 化学物質等及び会社情報

- ・ **製品識別子**
- ・ **商品名:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- ・ **製品番号:** 15055, 15058, 15056, 15055-SP
- ・ **CAS 番号:**
64-17-5
- ・ **EC 番号:**
200-578-6
- ・ **EU 番号:**
603-002-00-5
- ・ **該当純物質または混合物の関連特定用途及び使用禁止用途** 追加的な関連情報は得られていません。
- ・ **成分の利用/割合** 実験用化学物質
- ・ **安全データシートの供給元の詳細情報**
- ・ **製造者/納入者:**
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
- ・ **その他の情報問い合わせ先:** Product safety department
- ・ **緊急通報用電話番号:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危険有害性の要約

- ・ **純物質または混合物の分類**



火炎

引火性液体 区分2

H225 引火性の高い液体及び蒸気



重篤な眼の損傷性/眼刺激性 区分2 H319 強い眼刺激

- ・ **ラベル要素**
- ・ **GHS ラベル要素**
本化学物質はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。
- ・ **危険図表**



GHS02 GHS07

- ・ **表示語** 危険
- ・ **危険文句**
引火性の高い液体及び蒸気
強い眼刺激

(2ページに続く)

製品安全データシート

JIS Z7253 による分類

印刷日: 2017.08.30

改訂日: 2017.08.30

商品名: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(1ページの続き)

注意文句

- 熱/火花/裸火/高温のもののような着火源から遠ざけること。 - 禁煙。
- 防爆型の電気機器 / 換気装置 / 照明機器 / 機器を使用すること。
- 保護手袋/保護衣/保護眼鏡/保護面を着用すること。
- 皮膚 (または髪) に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水 / シャワーで洗うこと。
- 眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。
- 現地/地域/国/国際規定に従い内容物・容器の露出
- その他の危険性
- PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント
- PBT (残留性、生物濃縮性、毒性物質): 情報なし
- vPvB (高残留性、高生物濃縮性物質): 情報なし

3 組成・成分情報

- 化学的特性: 化学物質
- CAS 番号表示
64-17-5 Ethyl Alcohol, denatured
- ID 番号
- EC 番号: 200-578-6
- EU 番号: 603-002-00-5

4 応急措置

- 応急手当処置に関する説明
- 吸い込んだ場合: 外気を送る、つらい場合には医師を呼ぶ
- 皮膚が触れた場合: 一般的にはこの製品は皮膚には刺激はない
- 眼に入った場合:
瞼を開けたまま、流水で何分間か眼をすすぎ、状態がよくなる場合には医者に相談する
- 飲み込んだ場合: 状態が好転しない場合には医師に相談する
- 医師への指示事項:
最も重要な急性及び慢性の症状及び影響 追加的な関連情報は得られていません。
何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

5 火災時の措置

- 消火剤
- 適切な消火剤:
CO₂, 消火粉末剤あるいは水放射。火が大きい場合には水放射もしくは耐アルコール性泡を使用
- 本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。
- 消防士向けアドバイス
- 特別な保護装備: 特別な措置は必要としない

6 漏出時の措置

- 個人的予防措置、保護具及び応急処置法 防護服を着用。防護服を着用していない人は近づけない
- 環境関連予防措置:
大量の水で薄める
下水処理施設、地上水あるいは地下水に達しないようにする

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(2ページの続き)

- ・封じ込め及び浄化のための方法及び材料:
液体吸収材(砂、珪藻土、酸結合剤、ユニバーサル結合剤、おがくず)で吸収する
十分な換気を心がける
- ・他のセクションへの言及
安全な取り扱い方に関しては7項を参照
人の保護装備の情報に関しては8項を参照
廃棄処分に関しては13項参照

7 取扱い・保管上の注意

- ・取扱い方:
- ・安全操作のための予防措置
作業場では十分な換気、埃を吸い取るよう心がける
エアゾールの発生を防ぐ
- ・火災および爆発防止に関する注意事項:
発火元は遠ざける。禁煙
高温から保護する
静電荷を防ぐ措置をほどこす
- ・混融危険性を含めた安全貯蔵条件
- ・保管:
・保管スペースおよび容器に関する要求事項: 涼しい場所に保管する
・同じ場所に保管する際の注意事項: 必要ない
・保管条件に関するその他の注意事項:
容器は密閉した状態に保つ
よく密閉した樽の中で涼しく乾燥した場所に保管する
熱および直射日光は避ける
- ・特定の最終用途 追加的な関連情報は得られていません。

8 暴露防止及び保護措置

- ・技術設備の形体に関する追加注意事項: その他の申し立てなし、7項参照
- ・管理パラメーター
- ・作業場において限界値の監視を要する成分: 削除
- ・追加注意事項: 生成時に有効なリストがもともになっている
- ・暴露管理
- ・人的保護装備:
- ・一般防止措置および衛生措置:
食物、飲み物、飼料からは遠ざける
汚れのしみ込んだ衣類は即刻脱ぐ
休憩の前、作業終了後には手を洗う
眼に入らないように
眼に入らないよう、また皮膚に接触しないよう注意する
- ・呼吸保護器具:
短時間もしくは負担が小さい場合には呼吸フィルター付装置を、集中的にあるいは長時間触れる場合には、酸素ボンベ付き呼吸保護装備を使用すること
- ・手の保護:
手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあってはならない
テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるものはない
浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する
- ・手袋材 適当な手袋は材質だけではなく、その他の品質によっても変わり、各メーカーによって異なる

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- (3ページの続き)
- ・手袋材の浸透時間 正確な浸透時間については保護手袋メーカーに問い合わせ、それを遵守すること
 - ・眼の保護:



密閉式保護めがね

9 物理的及び化学的性質

・基本的な物理及び化学特性に関する情報

・一般指示事項

・外観

形:	液体
色:	無色
・におい:	アルコールのような
・嗅覚閾値	決まっていない.

・pH-値: 決まっていない.

・状態の変化

融点/融解範囲:	-114.5 °C
沸点/沸点範囲:	78 °C

・引火点: 13 °C

・発火性 (個体、気体): 情報なし

・発火温度: 425 °C

・分解温度: 決まっていない.

・自然発火性: 決まっていない.

・爆発の危険: プロダクトは爆発する危険はない。ただし爆発する危険のある蒸気と空気の混合物を形成する可能性はある

・爆発限界:

下限:	3.5 Vol %
上限:	15 Vol %

・蒸気圧 約 20 °C: 59 hPa

・密度 約 20 °C:	0.789 g/cm ³
・相対的密度	決まっていない.
・蒸気密度	決まっていない.
・気化速度	決まっていない.

・以下成分における消和性/との混和性

水 約 20 °C: 1.000 g/l

・分配係数 (n-オクタノール/水): 決まっていない.

・粘性:

力学的 約 20 °C:	1.2 mPas
運動性:	決まっていない.
有機溶剤:	100.0 %

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他の情報

追加的な関連情報は得られていません。

10 安定性及び反応性

- ・反応性 追加的な関連情報は得られていません。
- ・化学的安定性
- ・熱分解/回避すべき条件: 規定どおりの使用では分解しない
- ・危険反応の可能性 危険な反応は起きていない
- ・避けるべき条件 追加的な関連情報は得られていません。
- ・不適合物質: 追加的な関連情報は得られていません。
- ・危険な分解生成物: 危険な分解プロダクトはない

11 有害性情報

・毒性学的影響に関する情報

・急性毒性:

・分類上の LD/LC50 値:

64-17-5 Ethyl Alcohol, denatured

口	LD50	7060 mg/kg (rat)
吸収	LC50/4 h	20000 mg/l (rat)

・初期刺激作用:

- ・皮膚において: 刺激作用はない

- ・眼において: 刺激作用

- ・感作作用: 感作作用はない

12 環境影響情報

・毒性

- ・水生生物に対する毒性: 追加的な関連情報は得られていません。

- ・持続性及び分解性 追加的な関連情報は得られていません。

・環境システムにおける作用:

- ・生体内蓄積能 追加的な関連情報は得られていません。

- ・土壌内移動性 追加的な関連情報は得られていません。

・その他のエコロジーに関する注意事項:

・一般注意事項:

水への危険度分類 1 (ドイツの規定) (リストによる分類): 水に対する危険性はわずかにある

薄めずに、あるいは大量に地下水、河川もしくは下水施設に流してはならない

- ・PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント

- ・PBT (残留性、生物濃縮性、毒性物質): 情報なし

- ・vPvB (高残留性、高生物濃縮性物質): 情報なし

- ・他の副作用 追加的な関連情報は得られていません。

13 廃棄上の注意

・廃棄物処理方法

- ・勧告: 家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない

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- ・洗淨されていないパッケージ:
- ・勸告: 関係当局の規則に従って処分する
- ・推薦する洗剤: 水、場合に応じて洗剤も使って

14 輸送上の注意

・ UN 番号 ・ ADR, IMDG, IATA	UN1170
・ 国連出荷正式名 ・ ADR ・ IMDG ・ IATA	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL
・ 輸送の危険性クラス ・ ADR, IMDG, IATA	
	
・ 分類 ・ 危険物ラベル	3 可燃性液体成分 3
・ パッケージの分類 ・ ADR, IMDG, IATA	II
・ 環境危険:	情報なし
・ ユーザー用特別予防措置 ・ ケムラー符号: ・ EMS (電子メールサービスナンバー) 番号: ・ Stowage Category	警告: 可燃性液体成分 33 F-E,S-D A
・ マルポール条約 (MARPOL73/78) 付属書II及び IBCコードに準じたバルク輸送	情報なし
・ 輸送/その他の説明:	
・ 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) ・ Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
・ UN "模範規制":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

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15 適用法令

- ・ 該当純物質または混合物に対する安全、衛生及び環境規制・法律
- ・ 化審法

- ・ 既存化学物質

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- ・ 特定化学物質

物質は含まれていない

- ・ 監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質

物質は含まれていない

- ・ 優先評価化学物質

物質は含まれていない

- ・ 白物質

物質は含まれていない

- ・ 既存化学物質安全性点検結果 (分解性・蓄積性)

物質は含まれている

- ・ 既存化学物質安全性点検結果 (毒性)

物質は含まれていない

- ・ PRTR Class 1 designated substances

PRTR 制度 - 第一種指定化学物質

物質は含まれていない

- ・ PRTR Class 2 designated substances

PRTR 制度 - 第二種指定化学物質

物質は含まれていない

- ・ Poisonous and Deleterious Substances Control Act - Deleterious Substances

毒物及び劇物取締法 - 劇物

物質は含まれていない

- ・ Poisonous and Deleterious Substances Control Act - Poisonous Substances

毒物及び劇物取締法 - 毒物

物質は含まれていない

- ・ Poisonous and Deleterious Substances Control Act - Specified Poisonous Substances

毒物及び劇物取締法 - 特定毒物

物質は含まれていない

- ・ 労働安全衛生法

- ・ 危険物

- ・ 爆発性の物 (施行令別表第 1 第 1 号)

物質は含まれていない

- ・ 発火性の物 (施行令別表第 1 第 2 号)

物質は含まれていない

- ・ 酸化性の物 (施行令別表第 1 第 3 号)

物質は含まれていない

- ・ 引火性の物 (施行令別表第 1 第 4 号)

物質は含まれている

- ・ 可燃性のガス (施行令別表第 1 第 5 号)

物質は含まれていない

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- ・ 特定化学物質等

- ・ 第一類物質

物質は含まれていない

- ・ 第二類物質

物質は含まれていない

- ・ 第三類物質

物質は含まれていない

- ・ 名称等を通知すべき有害物 (別表第9)

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- ・ 製造許可物質

物質は含まれていない

- ・ 鉛中毒予防規則 (施行令別表第4)

物質は含まれていない

- ・ 四アルキル鉛中毒予防規則 (施行令別表第5)

物質は含まれていない

- ・ 有機溶剤中毒予防規則第 (施行令別表第6の2)

- ・ 第一種有機溶剤等

物質は含まれていない

- ・ 第二種有機溶剤等

物質は含まれていない

- ・ 第三種有機溶剤等

物質は含まれていない

- ・ GHS ラベル要素

本化学物質はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

- ・ 危険図表



GHS02 GHS07

- ・ 表示語 危険

- ・ 危険文句

引火性の高い液体及び蒸気
強い眼刺激

- ・ 注意文句

熱/火花/裸火/高温のもののような着火源から遠ざけること。 - 禁煙。

防爆型の電気機器 / 換気装置 / 照明機器 / 機器を使用すること。

保護手袋/保護衣/保護眼鏡/保護面を着用すること。

皮膚 (または髪) に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水 / シャワーで洗うこと。

眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。

現地/地域/国/国際規定に従い内容物・容器の露出

- ・ 化学物質の安全性評価: 化学物質安全性評価が遂行されていない

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16 その他の情報

この情報は現在の我々の認識に基づいている。ただし、プロダクトの特性を保証するものではなく、また契約において法的根拠にはならない

縮約と二文字語:

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PRTR/化管法: 化学物質排出把握管理促進法

引火性液体 区分2: Flammable liquids – Category 2

重篤な眼の損傷性/眼刺激性 区分2: Serious eye damage/eye irritation – Category 2

JP

물질안전보건자료

GHS에 따라

기압점: 2017.08.30

개정: 2017.08.30

1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF**
- **상품번호:** 15055, 15058, 15056, 15055-SP
- **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**
- **제조사/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 – 구분 2

H225 고인화성 액체 및 증기



심한 눈 손상성/눈 자극성 – 구분 2 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 쪽에 계속)

물질안전보건자료

GHS에 따라

기압점: 2017.08.30

개정: 2017.08.30

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 벗으시오. 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, denatured
- **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 상담한 다
- **먹었을 때:** 증상이 지속될 경우에는 의사와 상 담 한 다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:**
이산화탄소, 진화용 석회 가루 또는 물 방사를 사용하고, 더 큰 화재는 물을 분사 하거나 알코올 이 함유된 거품으로 끈다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.

(3 쪽에계속)

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(2 쪽부터 계속)

- 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, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
충분한 환기가 되도록 한다.
- 타 섹션 참조
안전관리에 대한 정보는 제7 장을 참고하십시오.
개인보호장비에 대한 정보는 제8 장을 참고하십시오.
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

7 취급 및 저장방법

- 취급:
· 안전 취급을 위한 예방조치
작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.
연무질이 형성되는 것을 피한다.
- 화재 및 폭발 사고 예방대책에 관한 정보:
발화요소는 멀리 둔다. 금연.
열로부터 보호한다.
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:
용기를 새지 않게 밀폐한 채 보관한다.
밀폐된 용기 속에서 늘 하고 건조하게 보관한다.
열이나 직사광선으로부터 보호한다.
- 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, denatured

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

- 추가 정보: 제조할 당시에 유효한 목록을 기초로 사용했다.

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(3 쪽부터계속)

- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.
 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
 휴식 전 이 나 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:**



확조이는보안경

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:	78 °C
· 인화점:	13 °C
· 인화성(고체, 기체):	해당사항 없음.
· 점화온도:	425 °C
· 분해 온도:	알맞지않다.
· 자기점화:	알맞지않다.
· 폭발위험:	이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.
· 인화 또는 폭발 범위의 상한/하한	
· 아래로:	3.5 Vol %

(5 쪽에계속)

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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:	1.000 g/l
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도:	
· 역학성 의경우 20 °C:	1.2 mPas
· 동점성:	알맞지않다.
· 용매내용물	
· 유기용매:	100.0 %
· VOC (EU)	100.00 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- **반응성** 추가적인 정보가 존재하지 않습니다.
- **화학적 안정성**
- **화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건:** 규정에따라사용할경우해체는없다
- **유해반응 가능성** 위험한반응으로는알려지지않았다.
- **피해야 할 조건** 추가적인 정보가 존재하지 않습니다.
- **혼합 금지 물질:** 추가적인 정보가 존재하지 않습니다.
- **유해분해물질:** 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- **급성 독성:**

· **LD/LC50-수치에 따른 분류:**

64-17-5 Ethyl Alcohol, denatured

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.

12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.

(6 쪽에계속)

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(5 쪽부터계속)

- 환경 시스템에서의 행동:
- 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

· 유엔 번호	UN1170
· ADR, IMDG, IATA	
· UN 적정 선적명	1170 ETHANOL (ETHYL ALCOHOL)
· ADR	ETHANOL (ETHYL ALCOHOL)
· IMDG	ETHANOL
· IATA	
· 교통 위험 클래스	
· ADR, IMDG, IATA	
	
· 등급	3 발화성용액
· 위험물 라벨	3
· 용기등급	II
· ADR, IMDG, IATA	
· 환경적 유해물질:	해당사항 없음.
· 이용자 특별 예방조치	경고: 발화성용액
· 위험 코드:	33
· EMS-번호:	F-E,S-D
· Stowage Category	A
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.

(7 쪽에계속)

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· 운 송/추가 정보:

· 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

· 운송 구분

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":

UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

15 법적 규제현황

· 산업안전보건법에 의한 규제:

· 제조 등 금지물질:

성분이포함되어있지않다

· 허가대상물질:

성분이포함되어있지않다

· 관리대상유해물질:

성분이포함되어있지않다

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory

KE-13217

· 화학물질관리법

· 사고대비물질

성분이포함되어있지않다

· 금지물질

성분이포함되어있지않다

· 제한물질

성분이포함되어있지않다

· 유독물질

성분이포함되어있지않다

· 허가물질

성분이포함되어있지않다

· GHS 라벨 요소

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

(8 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2017.08.30

개정: 2017.08.30

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

(7 쪽부터계속)

· 그림문자



GHS02 GHS07

· 신호어 위험

· 유해.위험 문구

고인화성 액체 및 증기
눈에 심한 자극을 일으킴

· 예방조치 문구

열·스파크·화염·고열로부터 멀리하십시오 - 금연
폭발 방지용 전기·환기·조명·장비를 사용하십시오.
(보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.
피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으십시오. 피부를 물로 씻으십시오/샤워하십시오.
눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으십시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은
기술하지않았으며계약적인법률관계에기반을두고있지도않다

· 최초 작성일자: 2017.08.30

· 개정 횟수 및 최종 개정일자: 1 / 2017.08.30

· 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Helaiian Data Keselamatan

menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

1 Pengenalan bahan kimia dan pembekal

- **Pengenal pasti produk**
- **Nama dagang:** ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- **Nombor artikel:** 15055, 15058, 15056, 15055-SP
- **Nombor CAS:**
64-17-5
- **Nombor EC:**
200-578-6
- **Nombor EU:**
603-002-00-5
- **Kegunaan yang disarankan bagi bahan dan sekatan penggunaan** Tiada maklumat lanjut yang diperoleh.
- **Penggunaan bahan/sediaan** Bahan kimia makmal
- **Perincian pembekal risalah data keselamatan**
- **Pengilang/Pembekal:**
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
- **Maklumat lanjut dapat diperoleh daripada:** Product safety department
- **Nombor telefon kecemasan:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Pengenalan bahaya

- **Pengelasan bahan atau campuran**



Nyalaan

Cec. M. Bkr 2 H225 Cecair dan wap amat mudah terbakar.

- **Melabelkan unsur**
- **Unsur label GHS** Bahan ini dikelaskan dan dilabelkan menurut Sistem Terharmoni Global (GHS).
- **Piktogram hazard**



GHS02

- **Perkataan isyarat Bahaya**
- **Pernyataan hazard**
Cecair dan wap amat mudah terbakar.
- **Pernyataan langkah perlindungan**
Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas – Dilarang merokok.
Bumikan/ikat bekas dan kelengkapan terimaan.
Gunakan kelengkapan elektrik/pengalihudaraan/pencahayaan yang tahan letupan.
Pakai sarung tangan pelindung/pakaian pelindung/perlindungan mata/perlindungan muka.
JIKA TERKENA KULIT (atau rambut): Segera tanggalkan/buka semua pakaian yang tercemar. Basuh kulit dengan air/pancuran air.
Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.

(Bersambung ke halaman 2)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 1)

- **Bahaya lain**
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkekaan
- **vPvB:** Tidak berkekaan

3 Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

- **Ciri kimia: Bahan**
- **Keterangan No. CAS**
64-17-5 Etil alkohol
- **Nombor pengenaltastian**
- **Nombor EC:** 200-578-6
- **Nombor EU:** 603-002-00-5

4 Langkah-langkah pertolongan cemas

- **Keterangan langkah pertolongan cemas**
- **Jika tersedut:** Berikan udara bersih, hubungi doktor jika terdapat aduan.
- **Jika terkena kulit:** Biasanya produk tidak merengsakan kulit.
- **Jika terkena mata:**
Bilas mata sambil membukanya di bawah air yang mengalir selama beberapa minit. Jika gejala berterusan, hubungi doktor.
- **Jika tertelan:** Jika gejala berterusan, hubungi doktor.
- **Maklumat untuk doktor:**
- **Gejala dan kesan paling penting, akut dan lewat** Tiadak maklumat lanjut yang diperoleh.
- **Arahan bagi apa-apa rawatan perubatan dan rawatan khas yang diperlukan**
Tiadak maklumat lanjut yang diperoleh.

5 Langkah-langkah pepadaman kebakaran

- **Bahan pepadam api**
- **Agen pepadam yang sesuai:**
CO₂, serbuk atau semburan air. Padam kebakaran besar dengan semburan air atau busa rintangan alkohol.
- **Bahaya khusus yang timbul daripada bahan atau campuran** Tiadak maklumat lanjut yang diperoleh.
- **Panduan kepada pepadam kebakaran**
- **Kelengkapan perlindungan:** Tiada langkah khusus diperlukan.

6 Langkah-langkah pelepasan tidak sengaja

- **Langkah perlindungan diri, kelengkapan pelindung dan prosedur kecemasan**
Pakai kelengkapan perlindungan. Jauhkan mereka yang tidak dilindung dari kawasan tercemar.
- **Langkah perlindungan alam sekitar:**
Cairkan dengan air yang banyak.
Jangan biarkannya memasuki pembentung/air permukaan atau tanah.
- **Kaedah dan bahan untuk pembendungan dan pembersihan:**
Serap dengan bahan cecair pengikat (pasir, diatomit, pengikat asid, pengikat semesta, habuk papan)
Pastikan pengalihanudaraan mencukupi.
- **Rujukan ke bahagian lain**
Lihat Bahagian 7 untuk maklumat pengendalian yang selamat.
Lihat Bahagian 8 untuk maklumat kelengkapan perlindungan diri.

(Bersambung ke halaman 3)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 2)

Lihat Bahagian 13 untuk maklumat pelupusan.

7 Pengendalian dan penyimpanan

- **Pengendalian:**
- **Langkah perlindungan untuk pengendalian selamat**
Pastikan pengalihudaraan/ekzos yang mencukupi di tempat kerja.
Elakkan pembentukan aerosol.
- **Maklumat kebakaran dan perlindungan daripada letupan:**
Jauhkan dari punca pencucuhan - Dilarang merokok.
Lindungi daripada haba.
Lindungi daripada cas-cas elektrostatik.
- **Keadaan untuk penyimpanan selamat, termasuk apa-apa ketakserasian**
- **Penyimpanan:**
- **Keperluan yang mesti dipenuhi oleh bilik stor dan ruang simpanan.** Simpan di tempat sejuk.
- **Maklumat penyimpanan di dalam satu tempat penyimpanan yang biasa:** Tidak diperlukan.
- **Maklumat lanjut tentang syarat penyimpanan:**
Pastikan bekas sentiasa bertutup rapat.
Simpan di tempat yang sejuk dan kering di dalam bekas bertutup rapat.
Lindungi daripada haba dan pancaran terus cahaya matahari.
- **Kegunaan akhir yang khusus** Tiada maklumat lanjut yang diperoleh.

8 Kawalan pendedahan dan perlindungan diri

- **Maklumat tambahan tentang reka bentuk kemudahan teknikal:** Tiada maklumat lanjut, lihat perkara 7.

- **Parameter kawalan**

- **Ramuan dengan nilai had yang memerlukan pemantauan di tempat kerja:**

64-17-5 Etil alkohol

PEL Nilai jangka panjang: 1880 mg/m ³ , 1000 ppm

- **Maklumat tambahan:** Senarai yang sah semasa pembuatan digunakan sebagai asas.
- **Kawalan pendedahan**
- **Kelengkapan perlindungan diri:**
- **Langkah perlindungan dan kebersihan am:**
Jauhkan daripada makanan, minuman dan makanan haiwan.
Segera tanggalkan semua pakaian yang tercemar dan kotor.
Basuh tangan sebelum berhenti rehat dan apabila kerja selesai.
Elakkan daripada terkena mata.
Elakkan daripada terkena mata dan kulit.
- **Perlindungan pernafasan:**
Jika berlaku pendedahan sekejap atau sedikit pencemaran, gunakan alat penapis pernafasan. Jika berlaku pendedahan yang intensif atau berpanjangan, gunakan alat pernafasan perlindungan serba lengkap.
- **Perlindungan tangan:**
Bahan sarung tangan hendaklah telus dan kalis terhadap produk/bahan/sediaan.
Oleh sebab tiada ujian yang dijalankan, maka tiada syor bagi bahan sarung tangan yang boleh diberikan untuk produk/sediaan/campuran kimia.
Pemilihan bahan sarung tangan berdasarkan waktu penembusan, kadar pembauran dan degradasi.
- **Bahan sarung tangan**
Pemilihan sarung tangan yang sesuai bukan hanya bergantung pada bahannya, tetapi juga tanda kualiti lainnya serta perbezaannya daripada satu pengeluar dengan pengeluar yang lain.

(Bersambung ke halaman 4)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 3)

- **Jangka masa penyerapan bahan sarung tangan**
Waktu kemunculan yang tepat hendaklah diperoleh pengeluar sarung tangan pelindung dan hendaklah dipatuhi.
- **Perlindungan mata:**



Gogal bertutup rapat

9 Sifat fizikal dan kimia

· Maklumat tentang ciri fizik dan kimia	
· Maklumat Am	
· Rupa:	
Bentuk:	Cecair
Warna:	Tidak berwarna
· Bau:	Seperti alkohol
· Ambang bau	Tidak ditentukan.
· Nilai pH:	Tidak ditentukan.
· Perubahan pada keadaan	
Takat lebur/takat beku	-114.5 °C
Takat didih awal dan julat didih	78 °C
· Takat kilat:	13 °C
· Kemudahbakaran (pepejal, gas)	Tidak berkenaan
· Suhu pencucuhan:	425 °C
· Suhu penguraian:	Tidak ditentukan.
· Suhu pengautocucuhan	Tidak ditentukan.
· Bahaya letupan:	Produk tidak mudah meletup. Walau bagaimanapun, pembentukan campuran udara/wap mungkin berlaku.
· Had letupan :	
Bawah:	3.5 Vol %
Atas:	15 Vol %
· Tekanan wap pada 20 °C:	59 hPa
· Ketumpatan pada 20 °C:	0.789 g/cm ³
· Ketumpatan bandingan	Tidak ditentukan.
· Ketumpatan wap	Tidak ditentukan.
· Kadar penyejatan	Tidak ditentukan.
· Keterlarutan dalam / Keterlarutcampuran dengan	
Air pada 20 °C:	1.000 g/l
· Pekali sekatan: n-oktanol/air	Tidak ditentukan.
· Kelikatan:	
Dinamik pada 20 °C:	1.2 mPas
Kinematik:	Tidak ditentukan.
Pelarut organik:	100.0 %

(Bersambung ke halaman 5)

MY

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 4)

· **Maklumat lain**

Tiadak maklumat lanjut yang diperoleh.

10 Kestabilan dan kereaktifan

- **Kereaktifan** Tiadak maklumat lanjut yang diperoleh.
- **Kestabilan kimia**
- **Penguraian terma/keadaan yang perlu dielakkan:** Tiada penguraian jika digunakan mengikut spesifikasi.
- **Kemungkinan tindak balas berbahaya** Tiada tindak balas berbahaya yang diketahui.
- **Keadaan yang perlu dielakkan** Tiadak maklumat lanjut yang diperoleh.
- **Bahan tidak serasi:** Tiadak maklumat lanjut yang diperoleh.
- **Produk penguraian yang berbahaya:** Tiada produk penguraian berbahaya yang diketahui.

11 Maklumat toksikologi

- **Maklumat tentang kesan toksikologi**
- **Ketoksikan akut:**

· **Nilai LD/LC50 yang berkaitan untuk pengelasan:**

64-17-5 Etil alkohol

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

- **Kesan kerengsaan primer:**
- **Kakisan atau kerengsaan kulit** Tiada kesan merengsa.
- **Kerosakan atau kerengsaan mata yang serius** Kesan merengsa.
- **Pemekaan pernafasan / kulit** Tiada kesan pemekaan yang diketahui.

12 Maklumat ekologi

- **Ketoksikan**
- **Ketoksikan akuatik:** Tiadak maklumat lanjut yang diperoleh.
- **Keterusan dan keterdegradasikan** Tiadak maklumat lanjut yang diperoleh.
- **Kelakuan dalam sistem alam sekitar:**
- **Potensi bioakumulatif** Tiadak maklumat lanjut yang diperoleh.
- **Mobiliiti di dalam tanah** Tiadak maklumat lanjut yang diperoleh.
- **Maklumat tambahan ekologi:**

· **Nota am:**

Bahaya air kelas 1 (Peraturan Jerman) (Penilaian mengikut senarai): sedikit berbahaya kepada air
Jangan biarkan produk yang tidak dicairkan atau dalam kuantiti yang banyak memasuki air tanah, saluran air atau sistem pembetungan.

· **Keputusan penilaian PBT dan vPvB**

- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan
- **Kesan buruk yang lain** Tiadak maklumat lanjut yang diperoleh.

MY

(Bersambung ke halaman 6)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017


Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 5)

13 Maklumat pelupusan

- **Kaedah rawatan sisa**
- **Syor:**
Tidak boleh dilupuskan bersama dengan sampah isi rumah. Jangan biarkan produk memasuki sistem pembentungan.
- **Pembungkusan yang tidak bersih:**
- **Syor:** Pelupusan mestilah dijalankan menurut peraturan rasmi
- **Agan pencuci yang disyorkan:** Air, jika perlu, digunakan bersama dengan agan pencuci.

14 Maklumat pengangkutan

· Nombor UN · ADR, IMDG, IATA	UN1170
· Nama penghantaran UN yang betul · ADR · IMDG · IATA	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL
· pengangkutan kelas bahaya · ADR, IMDG, IATA	
	
· Kelas · Label	3 Cecair mudah terbakar. 3
· Kumpulan pembungkusan · ADR, IMDG, IATA	II
· Hazard persekitaran:	Tidak berkenaan
· Langkah perlindungan khas untuk pengguna · Kod bahaya (Kemler): · Nombor EMS: · Stowage Category	Amaran: Cecair mudah terbakar. 33 F-E,S-D A
· Pengangkutan dalam pukal menurut Lampiran II MARPOL73/78 dan Kod IBC	Tidak berkenaan
· Pengangkutan/Maklumat Tambahan:	
· 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) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

(Bersambung ke halaman 7)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.08.2017

Disemak semula pada 30.08.2017

Nama dagang: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(Sambungan halaman 6)

· "Peraturan Model" UN: UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

15 Maklumat pengawalseliaan

- *Peraturan/undang-undang keselamatan, kesihatan dan persekitaran khusus untuk bahan atau campuran tersebut*
- *Unsur label GHS* Bahan ini dikelaskan dan dilabelkan menurut Sistem Terharmonisasi Global (GHS).
- *Piktogram hazard*



GHS02

- *Perkataan isyarat Bahaya*
- *Pernyataan hazard*
Cecair dan wap amat mudah terbakar.
- *Pernyataan langkah perlindungan*
Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas – Dilarang merokok.
Bumikan/ikat bekas dan kelengkapan terimaan.
Gunakan kelengkapan elektrik/pengalihudaraan/pencahayaan yang tahan letupan.
Pakai sarung tangan pelindung/pakaian pelindung/perindungan mata/perindungan muka.
JIKA TERKENA KULIT (atau rambut): Segera tanggalkan/buka semua pakaian yang tercemar. Basuh kulit dengan air/pancuran air.
Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.
- *Penilaian keselamatan bahan kimia: Penilaian Keselamatan Bahan Kimia belum dilakukan.*

16 Maklumat lain

Maklumat ini berdasarkan maklumat kami yang terkini. Walau bagaimanapun, ini tidak akan menjadi jaminan bagi apa-apa ciri produk yang khusus dan tidak akan mewujudkan hubungan kontraktual yang sah dari segi undang-undang.

- *Singkatan dan akronim:*
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Cec. M. Bkr 2: Cecair mudah terbakar – Kategori 2

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2017.08.30

在 2017.08.30 審核

1 化學品及企業標識

- 產品識別者
- 化學品中文(英文)名稱, 化學品俗名或商品名: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF
- 商品編號: 15055, 15058, 15056, 15055-SP
- CAS 編號:
64-17-5
- 歐盟編號:
200-578-6
- 歐盟編號:
603-002-00-5
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 原材料的應用/準備工作進行 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:
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
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危險性概述

- 緊急情況概述:
無色的, 液體, 高度易燃液體和蒸氣。造成嚴重眼睛刺激。

- GHS危險性類別



火焰

易燃液體 第2級

H225 高度易燃液體和蒸氣



嚴重損傷/刺激眼睛物質 第2級 H319 造成嚴重眼睛刺激

- 標籤因素
- GHS標籤元素 本化學物質根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。
- 圖示



GHS02 GHS07

- 名稱 危險
- 危險字句
高度易燃液體和蒸氣

(在 2 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2017.08.30

在 2017.08.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名 : ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(在 1 頁繼續)

造成嚴重眼睛刺激

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。

使用防爆的電氣/通風/照明/設備。

穿戴防護手套/防護衣物/眼睛防護具/臉部防護具。

· 事故響應

如皮膚(或頭髮)沾染：立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。

如進入眼睛：用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出，取出隱形眼鏡。繼續清洗。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 其他有害性

· PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果

· PBT(殘留性、生物濃縮性、毒性物質) 不適用的

· vPvB(高殘留性、高生物濃縮性物質): 不適用的

3 成分/組成資訊

· 純品

· CAS號 化學名, 通用名

64-17-5 無水酒精

· 鑒別編號：

· 歐盟編號: 200-578-6

· 歐盟編號: 603-002-00-5

4 急救措施

· 應急措施要領

· **吸入:** 供給新鮮空氣;如果病人感到不適時要詢問醫生。

· **皮膚接觸:** 一般的產品不會刺激皮膚。

· **眼睛接觸:** 張開眼睛在流水下沖洗數分鐘. 如果症狀仍然持續,請諮詢醫生。

· **食入:** 如果症狀仍然持續,請諮詢醫生。

· 給醫生的資料:

· **最重要的急性性症狀及其影響** 無相關詳細資料。

· **需要及時的醫療處理及特別處理的症狀** 無相關詳細資料。

5 消防措施

· 滅火方法

· **滅火的方法和滅火劑:** 二氧化碳 (CO₂)、滅火粉末或灑水. 使用灑水或抗酒精泡沫滅火劑撲滅較大的火種。

· **特別危險性** 無相關詳細資料。

· 特殊滅火方法

· **消防人員特殊的防護裝備:** 沒有要求特別的措施。

6 洩漏應急處理

· **保護措施** 帶上保護儀器. 讓未受到保護的人們遠離。

· 環境保護措施:

用大量的水進行稀釋。

(在 3 頁繼續)

物質安全資料表

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化學品中文(英文)名稱, 化學品俗名或商品名 : ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(在 2 頁繼續)

切勿讓其進入下水道/水面或地下水.

· **密封及淨化方法和材料:**

吸收液體粘合原料 (沙粒、矽藻土、酸性粘合劑、通用粘合劑、鋸屑).
確保有足夠的通風裝置.

· **參照其他部分**

有關安全處理的資料請參閱第 7 節.
有關個人保護裝備的資料請參閱第 8 節.
有關棄置的資料請參閱第 13 節.

7 操作處置與儲存

· **操作處置**

· **儲存**

確保工作間有良好的通風/排氣裝置.
防止氣溶膠的形成.

· **有關火災及防止爆炸的資料:**

遠離火源 - 切勿吸煙.
防熱.
防靜電.

· **混合危險性等安全儲存條件**

· **儲存:**

· **儲存庫和容器須要達到的要求:** 儲存在陰涼的位置.
· **有關使用一個普通的儲存設施來儲存的資料:** 不需要.
· **有關儲存條件的更多資料:**
將容器密封.
儲存密封的貯藏器內,並放在陰涼、幹爽的位置.
免受接觸熱力和直接受陽光照射.
· **具體的最終用戶** 無相關詳細資料.

8 接觸控制和個體防護

· **工程控制方法:** 沒有進一步數據,見第 7 項.

· **控制變數**

· **在工作場需要監控的限值成分**

64-17-5 無水酒精

PEL (TW) | PC-TWA: 1880 mg/m³, 1000 ppm

· **額外的資料:** 制作期間有效的清單將作為基礎來使用.

· **遺漏控制**

· **個人防護設備:**

· **一般保護和衛生措施:**

遠離食品、飲料和飼料.
立即除去所有的不潔的和被汙染的衣服.
在休息之前和工作完畢後請清洗雙手.
避免和眼睛接觸.
避免和眼睛及皮膚接觸.

· **呼吸系統防護:**

如果會短暫接觸或在低汙染的情況下,請使用呼吸過濾裝置. 如果會深入或較長時間接觸,請使用獨立的呼吸保護裝置.

(在 4 頁繼續)

物質安全資料表

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(在 3 頁繼續)

· 手防護:

手套的物料必須是不滲透性的, 且能抵抗該產品/物質/添加劑。
基於缺乏測試, 對於產品/制劑/化學混合物, 並不會提供手套材料的建議
選擇手套材料時, 請注意材料的滲透時間, 滲濾率和降解參數

· **手套材料** 選擇合適的手套不單取決於材料, 亦取決於質量特征, 以及來自哪一間生產廠家

· **滲入手套材料的時間** 請向勞保手套生產廠家獲取準確的破裂時間並觀察實際的破裂時間

· **眼睛防護:**



密封的護目鏡

9 理化特性

· 有關基本物理及化學特性的資訊

· 一般說明

· 外觀:

· **形狀:** 液體
· **顏色:** 無色的
· **氣味:** 類似酒精
· **嗅覺閾限** 未決定.

· **pH值:** 未決定.

· 條件的更改

· **熔點:** -114.5 °C
· **沸點/初沸點和沸程:** 78 °C

· **閃點:** 13 °C

· **可燃性 (固體、氣體):** 不適用的

· **點火溫度:** 425 °C

· **分解溫度:** 未決定.

· **自燃溫度:** 未決定.

· **爆炸的危險性:** 該產品並非爆炸性的然而有可能形成可爆炸性的空氣/蒸汽混合物

· 爆炸極限:

· **較低:** 3.5 Vol %
· **較高:** 15 Vol %

· **蒸氣壓 在 20 °C:** 59 hPa

· **密度 在 20 °C:** 0.789 g/cm³

· **相對密度** 未決定.

· **蒸氣密度** 未決定.

· **蒸發速率** 未決定.

· 溶解性

· **水 在 20 °C:** 1.000 g/l

· **n-辛醇/水分配係數:** 未決定.

· 黏性:

· **動態 在 20 °C:** 1.2 mPas

(在 5 頁繼續)

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化學品中文(英文)名稱, 化學品俗名或商品名: ETHYL ALCOHOL, ANHYDROUS (ETHANOL) - 200 PROOF

(在 4 頁繼續)

- 運動學的: 未決定.
- 有機溶劑: 100.0 %
- 其他資訊 無相關詳細資料。

10 穩定性和反應性

- 反應性 無相關詳細資料。
- 穩定性
- 熱分解/要避免的情況: 如果遵照規格使用則不會分解.
- 有害反應可能性 未有已知的危險反應.
- 應避免的條件 無相關詳細資料。
- 不相容的物質: 無相關詳細資料。
- 危險的分解產物: 未知有危險的分解產品.

11 毒理學資訊

- 對毒性學影響的資訊
- 急性毒性:

- 與分類相關的 LD/LC50 值:

64-17-5 無水酒精

口腔	LD50	7060 mg/kg (rat)
吸入	LC50/4 h	20000 mg/l (rat)

- 主要的刺激性影響:
- 皮膚: 沒有刺激性影響.
- 在眼睛上面: 刺激的影響.
- 致敏作用: 沒有已知的敏化影響.

12 生態學資訊

- 生態毒性
- 水生毒性: 無相關詳細資料。
- 持久性和降解性 無相關詳細資料。
- 環境系統習性:
- 潛在的生物累積性 無相關詳細資料。
- 土壤內移動性 無相關詳細資料。
- 額外的生態學資料:
- 總括注解:
 - 水危害級別 1(德國規例) (評估): 對水是稍微危害的
 - 不要讓未稀釋或大量的產品接觸地下水、水道或者汗水系統.
- PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果
- PBT(殘留性、生物濃縮性、毒性物質) 不適用的
- vPvB(高殘留性、高生物濃縮性物質): 不適用的
- 其他副作用 無相關詳細資料。

-TW-

(在 6 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

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(在 5 頁繼續)

13 廢棄處置

- **廢棄處置方法**
- **建議:** 不能將該產品和家居垃圾一起丟棄. 不要讓該產品接觸汗水系統.
- **受污染的容器和包裝:**
- **建議:** 必須根據官方的規章來丟棄.
- **建議的清洗劑:** 如有必要請使用水及清潔劑進行清潔.

14 運輸資訊

· 聯合國危險貨物編號(UN號)	UN1170
· ADR, IMDG, IATA	
· UN適當裝船名	1170 ETHANOL (ETHYL ALCOHOL)
· ADR	ETHANOL (ETHYL ALCOHOL)
· IMDG	ETHANOL
· IATA	
· 運輸危險等級	
· ADR, IMDG, IATA	
	
· 級別	3 易燃液體
· 標籤	3
· 包裝組別	
· ADR, IMDG, IATA	II
· 危害環境:	不適用的
· 用戶特別預防措施	警告: 易燃液體
· 危險編碼:	33
· EMS 號碼:	F-E,S-D
· Stowage Category	A
· MARPOL73/78(針對船舶引起的海洋污染預防協約) 附件書2及根據IBC Code(國際裝船貨物編碼)的大量 運送	不適用的
· 運輸/額外的資料:	
· 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

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PROOF

(在 6 頁繼續)

· UN "標準規定":

UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

15 法規資訊

· 對相應純物質或者混合物的安全、保健及環境法規/法律

· 中國現有化學物質名錄

有列出物質.

· GHS標識元素 本化學物質根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 圖示



GHS02 GHS07

· 名稱 危險

· 危險字句

高度易燃液體和蒸氣
造成嚴重眼睛刺激

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。
使用防爆的電氣/通風/照明/設備。
穿戴防護手套/防護衣物/眼睛防護具/臉部防護具。

· 事故響應

如皮膚(或頭髮)沾染: 立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。
如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 化學物質安全性評價: 尚未進行化學物質安全性評價

16 其他資訊

該資料是基於我們目前的知識。然而,這並不構成對任何特定產品特性的擔保並且不建立一個法律上有效的合同關係。

· 縮寫:

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累積性有毒物質

vPvB: very Persistent and very Bioaccumulative

易燃液體 第2級: Flammable liquids – Category 2

嚴重損傷/刺激眼睛物質 第2級: Serious eye damage/eye irritation – Category 2

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

data da impressão 30.08.2017

Revisão: 30.08.2017

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, 15055-SP
- **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

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

(continuação da página 1)

· **Advertências de perigo**

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

· **Recomendações de prudência**

- P210 Manter afastado do calor, superfícies quentes, faíscas, chamas abertas e outras fontes de ignição. 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): retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.
 P321 Tratamento específico (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: Medidas de 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)

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(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 Utilização(ões) final(is) específica(s)** 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 curta: 1000 ppm
	A3; Irritação do TRS

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

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(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 físico-químicas

- **9.1 Informações sobre propriedades físicas e químicas de base**
- **Informações gerais**
- **Aspetto:**
- **Forma:** Líquido
- **Cor:** Incolor
- **Odor:** tipo álcool
- **Limiar olfactivo:** Não classificado.
- **valor pH:** Não classificado.
- **Mudança do estado:**
- **Ponto de fusão/ponto de congelação:** -114,5 °C
- **Ponto de ebulição inicial e intervalo de ebulição:** 78 °C
- **Ponto de inflamação:** 13 °C
- **Inflamabilidade (sólido, gás):** Não aplicável.
- **Temperatura de ignição:** 425 °C
- **Temperatura de decomposição:** Não classificado.
- **Temperatura de autoignição:** Não classificado.
- **Propriedades explosivas:** O produto não é explosivo. Contudo, é possível a formação de misturas explosivas ar/vapor.

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· 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.
· Taxa de evaporação:	Não classificado.
· Solubilidade em / miscibilidade com água em 20 °C:	1,000 g/l
· Coeficiente de partição: n-octanol/água	Não classificado.
· Viscosidade:	
Dinâmico em 20 °C:	1,2 mPas
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** Não existe mais nenhuma informação relevante disponível.
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reações perigosas** Não se conhecem reações 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**
Nocivo por ingestão ou contacto com a pele.

· **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:**
- **Corrosão/irritação cutânea**
Provoca irritação cutânea.
- **Lesões oculares graves/irritação ocular**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Sensibilização respiratória ou cutânea**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

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- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Carcinogenicidade** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **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 Número ONU | |
| · ADR, IMDG, IATA | UN1170 |
| · 14.2 Designação oficial de transporte da ONU | |
| · ADR | 1170 ETANOL (ÁLCOOL ETÍLICO) |
| · IMDG | ETHANOL (ETHYL ALCOHOL) |
| · IATA | ETHANOL |

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· **14.3 Classes de perigo para efeitos de transporte**

· **ADR, IMDG, IATA**



· **Classe** 3 Líquidos inflamáveis
 · **Rótulo** 3

· **14.4 Grupo de embalagem**

· **ADR, IMDG, IATA** II

· **14.5 Perigos para o ambiente:** Não aplicável.

· **14.6 Precauções especiais para o utilizador** Atenção: Líquidos inflamáveis

· **Nº Kemler:** 33
 · **Nº EMS:** F-E,S-D
 · **Stowage Category** A

· **14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC** Não aplicável.

· **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":** UN 1170 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**

- **Diretiva 2012/18/UE**
- **Substâncias perigosas designadas - ANEXO I** A substância não está listada.
- **Categoria "Seveso" P5c** LÍQUIDOS INFLAMÁVEIS
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior** 5.000 t
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior** 50.000 t
- **Regulamento (CE) n.º 1907/2006 ANEXO XVII** Condições de limitação: 3

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

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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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Líquidos inflamáveis – Categoria 2

Acute Tox. 4: Toxicidade aguda – Categoria 4

Skin Irrit. 2: Corrosão/irritação cutânea – Categoria 2

PT

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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, 15055-SP

· **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.

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· **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 del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. 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): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ducharse.

P321 Se necesita un tratamiento específico (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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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.

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· 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/punto de congelación: -114,5 °C

Punto inicial de ebullición e intervalo de ebullición: 78 °C

· **Punto de inflamación:** 13 °C

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Revisión: 30.08.2017

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

(se continua en página 4)

· Inflamabilidad (sólido, gas):	No aplicable.
· Temperatura de ignición:	425 °C
· Temperatura de descomposición:	No determinado.
· Temperatura de auto-inflamación:	No determinado.
· Propiedades explosivas:	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.
· Tasa de evaporación:	No determinado.
· Solubilidad en / miscibilidad con agua a 20 °C:	1,000 g/l
· Coefficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad:	
Dinámica a 20 °C:	1,2 mPas
Cinemática:	No determinado.
· Concentración del disolvente:	
Disolventes orgánicos:	100,0 %
VOC (CE)	100,00 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **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**
Nocivo en caso de ingestión o en contacto con la piel.

· **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)

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(se continua en página 5)

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Sensibilización respiratoria o cutánea**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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 ONU**
- **ADR, IMDG, IATA** UN1170
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1170 ETANOL (ALCOHOL ETÍLICO)

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· IMDG	ETHANOL (ETHYL ALCOHOL)
· IATA	ETHANOL
· 14.3 Clase(s) de peligro para el transporte	
· ADR, IMDG, IATA	
	
· Clase	3 Líquidos inflamables
· Etiqueta	3
· 14.4 Grupo de embalaje	
· ADR, IMDG, IATA	II
· 14.5 Peligros para el medio ambiente:	No aplicable.
· 14.6 Precauciones particulares para los usuarios	Atención: Líquidos inflamables
· Número Kemler:	33
· Número EMS:	F-E,S-D
· Stowage Category	A
· 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC	No aplicable.
· Transporte/datos adicionales:	
· ADR	
· Cantidades limitadas (LQ)	1L
· Cantidades exceptuadas (EQ)	Código: E2 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 500 ml
· Categoría de transporte	2
· Código de restricción del túnel	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
· "Reglamentación Modelo" de la UNECE:	UN 1170 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**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** No contiene la sustancia.
- **Categoría Seveso P5c** LÍQUIDOS INFLAMABLES
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior** 5.000 t
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior** 50.000 t
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 3

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· **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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Líquidos inflamables – Categoría 2

Acute Tox. 4: Toxicidad aguda – Categoría 4

Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2