

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/26/2022

Reviewed on 08/26/2022

1 Identification

- **Product identifier**
- **Trade name:** FIRM for Acrylic Resin Sections
- **Article number:** 12780-05
- **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: info@emsdiasum.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 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carcinogenicity 1A H350 May cause cancer.

- **Label elements**
- **GHS label elements** The product 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
- **Hazard statements**
Highly flammable liquid and vapor.
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.

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Use only non-sparking tools.

Take precautionary measures against static discharge.

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 exposed or concerned: Get medical advice/attention.

In case of fire: Use CO₂, powder or water spray to extinguish.

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)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

64-17-5	Ethyl alcohol	>50-≤100%
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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.

· **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, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

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- **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:** 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.
Do not flush with water or aqueous cleansing agents
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

64-17-5	Ethyl alcohol	1,800 ppm
10510-54-0	Cresyl Violet Acetate	30 mg/m ³

· **PAC-2:**

64-17-5	Ethyl alcohol	3300* ppm
10510-54-0	Cresyl Violet Acetate	330 mg/m ³

· **PAC-3:**

64-17-5	Ethyl alcohol	15000* ppm
10510-54-0	Cresyl Violet Acetate	2,000 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
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.
- **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.

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- **Control parameters**

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

64-17-5 Ethyl alcohol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1000 ppm

A3

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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: Not determined.

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 78 °C (172.4 °F)

- **Flash point:** 13 °C (55.4 °F)

- **Flammability (solid, gaseous):** Highly flammable.

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

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· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· 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 (44.3 mm Hg)
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	70.0 %
VOC content:	70.00 %
	700.0 g/l / 5.84 lb/gal
Solids content:	0.0 %
· 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.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

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· **Additional toxicological information:**

· **Carcinogenic categories**

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

64-17-5 Ethyl alcohol	1
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is 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 (Self-assessment): 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.

14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN1170

· **UN proper shipping name**

· **DOT**

Ethanol mixture

· **ADR**

1170 ETHANOL (ETHYL ALCOHOL) mixture

· **IMDG**

ETHANOL (ETHYL ALCOHOL) mixture

· **IATA**

ETHANOL mixture

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· **Transport hazard class(es)**· **DOT**

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

· **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· **Hazard identification number (Kemler code):** 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 (ETHYL ALCOHOL) MIXTURE, 3, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 No further relevant information available.

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· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

64-17-5 Ethyl alcohol

ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

64-17-5 Ethyl alcohol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

64-17-5 Ethyl alcohol

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

None of the ingredients is listed.

· **GHS label elements** The product 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

· **Hazard statements**

Highly flammable liquid and vapor.

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.

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Take precautionary measures against static discharge.
 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 exposed or concerned: Get medical advice/attention.
 In case of fire: Use CO₂, powder or water spray to extinguish.
 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.

· **Contact:**

· **Date of preparation / last revision** 08/26/2022 / -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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)

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

Flammable Liquids 2: Flammable liquids – Category 2

Carcinogenicity 1A: Carcinogenicity – Category 1A

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1 Identification

- **Product identifier**
- **Trade name:** FIRM for Acrylic Resin Sections
- **Article number:** 12780-05
- **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: info@emsdiasum.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)
Website: ems.proscitech.com
- 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.

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

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· **Hazard pictograms**

GHS02 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***Ethyl alcohol*· **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/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.**Wear protective gloves/protective clothing/eye protection/face protection.**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.**In case of fire: Use CO₂, powder or water spray for extinction.**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.*· **vPvB:** *Not applicable.*

3 Composition and Information on Ingredients

· **Chemical characterisation:** *Mixtures*· **Description:** *Mixture of substances listed below with nonhazardous additions.*· **Dangerous components:**

64-17-5	Ethyl alcohol	>50-≤100%
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· **SVHC**

64-17-5	Ethyl alcohol
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· **Additional information:** *For the wording of the listed hazard phrases refer to section 16.*

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

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- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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:** 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.
Do not flush with water or aqueous cleansing agents
- **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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
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.
- **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.

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- **Control parameters**

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

64-17-5 Ethyl alcohol

WES	Long-term value: 1880 mg/m ³ , 1000 ppm
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- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

- **Respiratory protection:** Not required.

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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:	Not determined.

Odour:	Characteristic
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Odour threshold:	Not determined.
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pH-value:	Not determined.
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- **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	78 °C

Flash point:	13 °C
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Flammability (solid, gas):	Highly flammable.
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Ignition temperature:	425 °C
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Decomposition temperature:	Not determined.
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Auto-ignition temperature:	Product is not selfigniting.
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· 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:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	70.0 %
VOC (EC)	70.00 %
Solids content:	0.0 %
· 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.

11 Toxicological Information

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

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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) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	<p style="text-align: center;">UN1170</p>
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA 	<p style="text-align: center;">1170 ETHANOL (ETHYL ALCOHOL) mixture ETHANOL (ETHYL ALCOHOL) mixture ETHANOL mixture</p>
<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 	<p style="text-align: center;">3 Flammable liquids. 3</p>
<ul style="list-style-type: none"> · Packing group · ADG, IMDG, IATA 	<p style="text-align: center;">II</p>
<ul style="list-style-type: none"> · Environmental hazards: 	<p style="text-align: center;">Not applicable.</p>
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: 	<p style="text-align: center;">Warning: Flammable liquids. 33 F-E,S-D</p>

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

15 Regulatory information

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

· **Australian Inventory of Industrial Chemicals**

64-17-5 Ethyl alcohol

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

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS08

· **Signal word** Danger

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

Ethyl alcohol

· **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/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

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Use only non-sparking tools.

Take precautionary measures against static discharge.

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

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.

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

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** None of the ingredients is 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

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

64-17-5 Ethyl alcohol

· **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.

· **Contact:**

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Carc. 1A: Carcinogenicity – Category 1A

Safety Data Sheet

according to HPR, Schedule 1

Printing date 08/26/2022

Reviewed on 08/26/2022

1 Identification

- **Product identifier**
- **Trade name:** FIRM for Acrylic Resin Sections
- **Article number:** 12780-05
- **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: info@emsdiasum.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 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 product 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
- **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.

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Trade name: FIRM for Acrylic Resin Sections

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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 CO₂, powder or water spray to extinguish.

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 = 0

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *0

Fire = 3

Reactivity = 0

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

64-17-5	Ethyl alcohol	45-70% w/w *
---------	---------------	--------------

* Actual concentration ranges are withheld as a trade secret.

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.

· **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, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

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Trade name: FIRM for Acrylic Resin Sections

(Contd. of page 2)

- **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:** 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.
Do not flush with water or aqueous cleansing agents
- **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** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
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.
- **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

EL STEL: 1000 ppm

EV TWA: 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:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Trade name: FIRM for Acrylic Resin Sections

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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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:	Not determined.
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	78 °C

· **Flash point:** 13 °C

· **Flammability (solid, gaseous):** Highly flammable.

· **Ignition temperature:** 425 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **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:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

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Trade name: **FIRM for Acrylic Resin Sections**

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- | | |
|---|--|
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 70.0 % |
| Solids content: | 0.0 % |
| · 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.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

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

64-17-5	Ethyl alcohol	I
---------	---------------	---

· NTP (National Toxicology Program)
--

None of the ingredients is 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.

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Trade name: **FIRM for Acrylic Resin Sections**



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- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): 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.

14 Transport information

- | | |
|--|---------------------------------|
| <ul style="list-style-type: none"> · UN-Number | UN1170 |
| <ul style="list-style-type: none"> · DOT/TDG, ADR, IMDG, IATA | |
| <ul style="list-style-type: none"> · UN proper shipping name | Ethanol mixture |
| <ul style="list-style-type: none"> · DOT/TDG | 1170 Ethanol mixture |
| <ul style="list-style-type: none"> · ADR | ETHANOL (ETHYL ALCOHOL) mixture |
| <ul style="list-style-type: none"> · IMDG | ETHANOL mixture |
| <ul style="list-style-type: none"> · IATA | |
| <ul style="list-style-type: none"> · Transport hazard class(es) | |
| <ul style="list-style-type: none"> · DOT/TDG (Transport dangerous goods): | |
|  | |
| <ul style="list-style-type: none"> · Class | 3 Flammable liquids |
| <ul style="list-style-type: none"> · Label | 3 |
| | |
| <ul style="list-style-type: none"> · ADR, IMDG, IATA | |
|  | |
| <ul style="list-style-type: none"> · Class | 3 Flammable liquids |
| <ul style="list-style-type: none"> · Label | 3 |
| <ul style="list-style-type: none"> · Packing group | II |
| <ul style="list-style-type: none"> · DOT/TDG, ADR, IMDG, IATA | |
| <ul style="list-style-type: none"> · Environmental hazards: | Not applicable. |
| <ul style="list-style-type: none"> · Special precautions for user | Warning: Flammable liquids |
| <ul style="list-style-type: none"> · Hazard identification number (Kemler code): | 33 |

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Safety Data Sheet

according to HPR, Schedule 1

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Trade name: **FIRM for Acrylic Resin Sections**

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· 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/TDG	
· 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 (ETHYL ALCOHOL) MIXTURE, 3, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

64-17-5 Ethyl alcohol ACTIVE

· **Canadian substance listings:**

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

64-17-5 Ethyl alcohol

· **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

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

64-17-5 Ethyl alcohol

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

None of the ingredients is listed.

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

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Trade name: **FIRM for Acrylic Resin Sections**

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· **Hazard pictograms**

GHS02 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***Ethyl alcohol*· **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 CO2, powder or water spray to extinguish.**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.

· **Contact:**· **Date of the latest revision of the safety data sheet** 08/26/2022 / -· **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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative*

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

Printing date 26.08.2022

Revision: 26.08.2022

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

- **1.1 Product identifier**
- **Trade name:** FIRM for Acrylic Resin Sections
- **Article number:** 12780-05
- **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: info@emsdiasum.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**



flame

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

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



GHS02

- **Signal word** *Danger*
- **Hazard statements**
H225 Highly flammable liquid and vapour.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
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 [or shower].
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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Safety data sheet

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Trade name: **FIRM for Acrylic Resin Sections**


(Contd. of page 1)

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

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5	Ethyl alcohol	 Flam. Liq. 2, H225	>50-≤100%
EINECS: 200-578-6			

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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.
- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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.

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:** 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.
Do not flush with water or aqueous cleansing agents
- **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.

GB

(Contd. on page 3)

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

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Revision: 26.08.2022

Trade name: **FIRM for Acrylic Resin Sections**

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and 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.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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

64-17-5 Ethyl alcohol

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:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

GB

(Contd. on page 4)

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according to 1907/2006/EC, Article 31

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Trade name: **FIRM for Acrylic Resin Sections**

(Contd. of page 3)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Not determined.
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	78 °C

· Flash point: 13 °C

· Flammability (solid, gas): Highly flammable.

· Ignition temperature: 425 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· 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: Not determined.

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

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

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· Solvent content:

Organic solvents:	70.0 %
VOC (EC)	70.00 %

Solids content: 0.0 %

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

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- **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** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **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.
- **Additional toxicological information:**
- **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.

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) (Self-assessment): 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.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1170
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1170 ETHANOL (ETHYL ALCOHOL) mixture ETHANOL (ETHYL ALCOHOL) mixture ETHANOL mixture
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
	
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids. 33 F-E,S-D 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) · 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) · 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 (ETHYL ALCOHOL) MIXTURE, 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 None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS

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- **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
- **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.

· Relevant phrases

H225 Highly flammable liquid and vapour.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

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1 化学品及企业标识

· **产品识别者**

· **化学品中文名称、英文名称、化学品俗名或商品名:** FIRM for Acrylic Resin Sections

· **商品编号:** 12780-05

· **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。

· **物质或混合物的用途** 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: info@emsdiasum.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:**

未决定. 液体, 高度易燃液体和蒸气。

· **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

· **标签要素**

· **GHS卷标要素** 本产品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。

· **象形图**



GHS02

· **警示词** 危险

· **危险性说明**

高度易燃液体和蒸气

· **防范说明**

· **预防措施**

远离热源/火花/明火/热表面。禁止吸烟
容器和装载设备接地/等势联接
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

· **废弃处置**

处置内装物/容器按照地方/区域/国家/国际规章

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- 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

· **混合物**

描述描述描述以下含有无害添加济的成分组成的混合物

· **危险的成分:**

64-17-5	无水酒精 Ethyl alcohol	易燃液体 第2类, H225	>50-≤100%
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4 急救措施

· **应急措施要领**

吸入吸入吸入给新鲜空气;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.

食入食入食入如果症状仍然持续,请咨询医生.

- **给医生的资料:**
- **最重要的急慢性症状及其影响** 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:** 使用二氧化碳 (CO2)、沙粒、灭火粉末. 切勿使用水.
- **为了安全,不适当的灭火剂会:** 使用全喷嘴的水
- **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:** 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.
切勿用水或水溶清洁剂来冲清.
- **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.

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7 操作处置与储存

· 操作处置

储存 储存 储存 正确使用便不需特别的预防措施.

· 有关火灾及防止爆炸的资料:

- 远离火源 - 切勿吸烟.
- 防静电.

· 混合危险性等安全储存条件

储存 储存 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.
- 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/m ³ , 1000 ppm
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- 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: 在休息之前和工作完毕后请清洗双手.

- 呼吸系统防护: 不需要.

· 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,因为该产品是由很多材料
配制而成,手套材料的抵抗力并不可预计,所以,必须在使用之前进行检查

- 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

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9 理化特性

· 有关基本物理及化学特性的信息	
· 一般说明	
外观外观外观	液体
形状形状形状	未决定.
颜色颜色颜色	未决定.
气味气味气味	有特性的
· 嗅觉阈限	未决定.
· pH值:	未决定.
· 条件的更改	
熔点熔点熔点	未确定的
沸点沸点/初沸点和沸程:	78 °C
闪点闪点闪点	13 °C
· 可燃性 (固体、气体): 高度可燃的.	
· 点火温度:	425 °C
· 分解温度:	未决定.
· 自燃温度:	该产品是不自燃的
· 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:	
较低较低较低	3.5 Vol %
较高较高较高	15 Vol %
· 蒸气压 在 20 °C:	59 hPa
密度密度密度	未决定的
· 相对密度	未决定.
· 蒸气密度	未决定.
蒸发蒸集蒸集速率	未决定.
溶解性	
· 水:	不能拌和的或难以拌和
· 辛醇/水分配系数: 未决定.	
· 黏性:	
动态动态动态	未决定.
运动速率/流变学的	未决定.
· 剂溶剂成搗成	
机溶剂溶剂	70.0 %
· 固体成份:	0.0 %
· 其他信息 无相关详细资料。	

10 稳定性和反应性

· 稳定性: 应性性性相关详细资料。
稳定稳定稳定
· 分解/降解/避免的情况: 如果遵照规格使用则不会分解。

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有害有害程度可能性 未有已知的危险反应.

避免避免条件 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:

重要的刺激影响:

皮肤皮肤皮肤有刺激性影响.

在眼睛上面: 有刺激的影响.

致敏致敏作用 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:

潜在的累积性 无相关详细资料.

土壤土壤移动性 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) (通过名单进行自我评估): 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

其他其他作用 无相关详细资料.

13 废弃处置

废弃处置方法

建议建议建议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:

建议建议建议根据官方的规章来丢弃.

14 运输信息

联合国危险货物编号(UN号)

ADR, IMDG, IATA

UN1170

UN适当装船名

ADR

1170 乙醇 混合物

IMDG

ETHANOL (ETHYL ALCOHOL) mixture

IATA

ETHANOL mixture

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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

· **环境危害** 不适用的

· **用户特别预防措施** 警告: 易燃液体
 · **危险编码:** 33
 · **环境代码** F-E,S-D
 · **Stowage Category** A

· **MARPOL73/78(针对船舶引起的海洋污染预防的公约)**
 附件 1 根据国际国际船舶货物编码 大量大量
 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

· **UN "标准规定":** UN 1170 乙醇 混合物, 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** 无相关详细资料。
 · **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

· **化学品首次进口及有毒化学品进出口环境管理规定**
 · **新化学物质环境管理办法**

· **国家环境化学物质名录**

列出所有成分

· **GHS卷标元素** 本产品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。

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· 象形图



GHS02

· 警示词 危险

· 危险性说明

高度易燃液体和蒸气

· 防范说明

· 预防措施

远离热源/火花/明火/热表面。禁止吸烟

容器和装载设备接地/等势联接

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

· 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。

· 联络:

· 缩写:

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

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

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 26.08.2022

Herziening van: 26.08.2022

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

- **1.1 Productidentificatie**
- **Handelsnaam:** FIRM for Acrylic Resin Sections
- **Artikelnummer:** 12780-05
- **UFI:** 5HN2-K02J-D005-H3MD
- **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: info@emsdiasum.com
www.emsdiasum.com
- Aurion
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

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

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



GHS02

- **Signaalwoord** Gevaar
- **Gevarenaanduidingen**
H225 Licht ontvlambare vloeistof en damp.
- **Veiligheidsaanbevelingen**
P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.

(Vervolg op blz. 2)

Veiligheidsinformatieblad

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Handelsnaam: FIRM for Acrylic Resin Sections

(Vervolg van blz. 1)

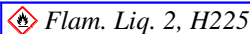
- P240 Opslag- en opvangreservoir aarden.
- P241 Explosieveilige [elektrische/ventilatie-/verlichtings-]apparatuur gebruiken.
- P280 Draag beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming/gehoorbescherming.
- P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen [of afdouchen].
- 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

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

· **Gevaarlijke inhoudstoffen:**

CAS: 64-17-5	ethanol		>50-≤100%
EINECS: 200-578-6			

· **SVHC**

64-17-5	ethanol
---------	---------

· **Aanvullende gegevens:**

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

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:** Ogen bij geopend ooglid meerdere minuten met stromend water spoelen
- **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.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** CO₂, zand, bluspoeder. Geen water gebruiken.
- **Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn:** Krachtige waterstraal
- **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.

NL

(Vervolg op blz. 3)

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(Vervolg van blz. 2)

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terecht komen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Voor voldoende ventilatie zorgen.
Niet met water of waterachtige reinigingsmiddelen wegspoelen.
- **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**
Bij een deskundig gebruik zijn geen bijzondere maatregelen vereist.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
Onstekingsbronnen op afstand houden - niet roken.
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.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

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

· **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:**
Vóór de pauze en aan het einde van werktijd handen wassen.
- **Ademhalingsbescherming:** Niet noodzakelijk.
- **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 chemicaliën mengsel afgegeven worden.
Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

(Vervolg op blz. 4)

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· **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. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

· **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:	Niet bepaald.
Geur:	Karakteristiek
Geurdrempelwaarde:	Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

Smelt-/vriespunt:	Niet bepaald.
Beginkookpunt en kooktraject:	78 °C

· **Vlampunt:** 13 °C

· **Ontvlambaarheid (vast, gas):** Licht ontvlambaar.

· **Ontstekings temperatuur:** 425 °C

· **Ontledingstemperatuur:** Niet bepaald.

· **Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.

· **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:** Niet bepaald.

· **Relatieve dichtheid** Niet bepaald.

· **Dampdichtheid** Niet bepaald.

· **Verdampingsnelheid** Niet bepaald.

· **Oplosbaarheid in/mengbaarheid met**

Water: Niet resp. gering mengbaar.

· **Verdelingscoëfficiënt: n-octanol/water:** Niet bepaald.

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Organisch oplosmiddel:	70,0 %
VOC (EG)	70,00 %
Gehalte aan vaste bestanddelen:	0,0 %
· 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** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **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.
- **Aanvullende toxicologische informatie:**
- **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): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioacumularend vermogen/ toxiciteit of persistentie)

(Vervolg op blz. 6)

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(Vervolg van blz. 5)

- Gevaar voor water klasse 1 (D) (Zelfclassificatie): 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 terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|---|---|
| · 14.1 VN-nummer | UN1170 |
| · ADR, IMDG, IATA | |
| · 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN | 1170 ETHANOL (ETHYLALCOHOL), Mengsel |
| · ADR | ETHANOL (ETHYL ALCOHOL) mixture |
| · IMDG | ETHANOL mixture |
| · IATA | |
| · 14.3 Transportgevarenklasse(n) | |
| · ADR, IMDG, IATA | |
|  | |
| · klasse | 3 Brandbare vloeistoffen |
| · Etiket | 3 |
| · 14.4 Verpakkingsgroep: | |
| · ADR, IMDG, IATA | II |
| · 14.5 Milieugevaren: | Niet bruikbaar. |
| · 14.6 Bijzondere voorzorgen voor de gebruiker | Waarschuwing: Brandbare vloeistoffen |
| · Gevaarsidentificatienummer (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 |
| · Uitzonderde hoeveelheden (EQ) | Code: E2
Grootste netto hoeveelheid per binnenverpakking: 30 ml
Grootste netto hoeveelheid per buitenverpakking: 500 ml |
| · Vervoerscategorie | 2 |

(Vervolg op blz. 7)

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· 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), MENGSEL, 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

64-17-5	ethanol
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· SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

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

64-17-5	ethanol	IA
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· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

64-17-5	ethanol	IA
---------	---------	----

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

64-17-5	ethanol	x
---------	---------	---

· Lijst Zeer Zorgwekkende Stoffen (ZZS)

geen der bestanddelen staat op de lijst.

· Lijst van Potentieel Zeer Zorgwekkende Stoffen

geen der bestanddelen staat op de lijst.

· Richtlijn 2012/18/EU

· Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I geen der bestanddelen staat op de lijst.

· 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

· Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II

geen der bestanddelen staat op de lijst.

· VERORDENING (EU) 2019/1148

· Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)

geen der bestanddelen staat op de lijst.

· Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD

geen der bestanddelen staat op de lijst.

· Verordening (EG) nr. 273/2004 inzake drugsprecursoren

geen der bestanddelen staat op de lijst.

(Vervolg op blz. 8)

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· **Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren**

geen der bestanddelen staat op de lijst.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:**

Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioacumulerend vermogen/ toxiciteit of persistentie)

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

· **Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57**

64-17-5 ethanol

· **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.

· **Relevante zinnen**

H225 Licht ontvlambare vloeistof en damp.

· **Afkortingen en acroniemen:**

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 26.08.2022

Révision: 26.08.2022

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

- **1.1 Identificateur de produit**
- **Nom du produit:** FIRM for Acrylic Resin Sections
- **Code du produit:** 12780-05
- **UFI:** 5HN2-K02J-D005-H3MD
- **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: info@emsdiasum.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.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.
- **Pictogrammes de danger**



GHS02

- **Mention d'avertissement** Danger
- **Mentions de danger**
H225 Liquide et vapeurs très inflammables.
- **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.
 - P240 Mise à la terre et liaison équipotentielle du récipient et du matériel de réception.
 - 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/une protection auditive.
 - 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 [ou se doucher].
 - P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

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- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

- **3.2 Caractérisation chimique: Mélanges**
- **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.

- **Composants dangereux:**

CAS: 64-17-5	éthanol	 Flam. Liq. 2, H225	>50-≤100%
EINECS: 200-578-6			

- **SVHC**

64-17-5	éthanol
---------	---------

- **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

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, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.
- **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, sable, poudre d'extinction. Ne pas utiliser d'eau.
- **Produits extincteurs déconseillés pour des raisons de sécurité:** Jet d'eau à grand débit
- **5.2 Dangers particuliers résultant de la substance ou du mélange**
Pas d'autres informations importantes disponibles.
- **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:**
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.
Ne pas rincer à l'eau ou aux produits nettoyants aqueux.

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· **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**

Aucune mesure particulière n'est nécessaire en cas de bonne utilisation.

· **Préventions des incendies et des explosions:**

Tenir à l'abri des sources d'inflammation - ne pas fumer.

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.

· **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

· **8.1 Paramètres de contrôle**

· **Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

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

64-17-5 éthanol

VLEP	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.

· **8.2 Contrôles de l'exposition**

· **Équipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:** *Se laver les mains avant les pauses et en fin de travail.*

· **Protection respiratoire:** *N'est pas nécessaire.*

· **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 dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

· **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.

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· **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:	Non déterminé.
· Odeur:	Caractéristique
· Seuil olfactif:	Non déterminé.

· **valeur du pH:** Non déterminé.· **Changement d'état**

· Point de fusion/point de congélation:	Non déterminé.
· Point initial d'ébullition et intervalle d'ébullition:	78 °C

· **Point d'éclair** 13 °C· **Inflammabilité (solide, gaz):** Facilement inflammable.· **Température d'inflammation:** 425 °C· **Température de décomposition:** Non déterminé.· **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.· **Propriétés explosives:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.· **Limites d'explosion:**

· Inférieure:	3,5 Vol %
· Supérieure:	15 Vol %

· **Pression de vapeur à 20 °C:** 59 hPa· **Densité:** Non déterminée.· **Densité relative** Non déterminé.· **Densité de vapeur:** Non déterminé.· **Taux d'évaporation:** Non déterminé.· **Solubilité dans/miscibilité avec l'eau:**

Pas ou peu miscible

· **Coefficient de partage: n-octanol/eau:** Non déterminé.· **Viscosité:**

· Dynamique:	Non déterminé.
· Cinématique:	Non déterminé.

· **Teneur en solvants:**

· Solvants organiques:	70,0 %
· VOC (CE)	70,00 %

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Teneur en substances solides: 0,0 %

· 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** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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.
- **Indications toxicologiques complémentaires:**
- **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 propre): peu polluant
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.

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- **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.

RUBRIQUE 14: Informations relatives au transport

<ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA 	UN1170
<ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG · IATA 	1170 ÉTHANOL (ALCOOL ÉTHYLIQUE) mélange ETHANOL (ETHYL ALCOHOL) mixture ETHANOL mixture
<ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR, IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> · Classe · Étiquette 	3 Liquides inflammables. 3
<ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: 	Non applicable.
<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur · Numéro d'identification du danger (Indice Kemler): · No EMS: · Stowage Category 	Attention: Liquides inflammables. 33 F-E,S-D A
<ul style="list-style-type: none"> · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC 	Non applicable.
<ul style="list-style-type: none"> · Indications complémentaires de transport: 	
<ul style="list-style-type: none"> · ADR · Quantités limitées (LQ) · Quantités exceptées (EQ) 	1L Code: E2 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 500 ml
<ul style="list-style-type: none"> · Catégorie de transport 	2

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· 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) MÉLANGE, 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** Aucun des composants n'est compris.

· **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

· **Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II**

Aucun des composants n'est compris.

· **RÈGLEMENT (UE) 2019/1148**

· **Annexe I - PRÉCURSEURS D'EXPLOSIFS FAISANT L'OBJET DE RESTRICTIONS (Valeur limite maximale aux fins de l'octroi d'une licence en vertu de l'article 5, paragraphe 3)**

Aucun des composants n'est compris.

· **Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALLEMENT**

Aucun des composants n'est compris.

· **Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues**

Aucun des composants n'est compris.

· **Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers**

Aucun des composants n'est compris.

· **Prescriptions nationales:**

· **Autres prescriptions, restrictions et règlements d'interdiction**

· **Substances extrêmement préoccupantes (SVHC) selon REACH, article 57**

64-17-5 | éthanol

· **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.

· **Phrases importantes**

H225 Liquide et vapeurs très inflammables.

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· Acronymes et abréviations:*ADR: Accord relatif au transport international 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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Liquides inflammables – Catégorie 2*

FR

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

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

- **1.1 Produktidentifikator**
- **Handelsname:** ***FIRM for Acrylic Resin Sections***
- **Artikelnummer:** 12780-05
- **UFI:** 5HN2-K02J-D005-H3MD
- **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: info@emsdiasum.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
- **Auskunfteibender 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.

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



GHS02

- **Signalwort** Gefahr

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· Gefahrenhinweise
H225 Flüssigkeit und Dampf leicht entzündbar.
· Sicherheitshinweise
P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.
P240 Behälter und zu befüllende Anlage erden.
P241 Explosionsgeschützte [elektrische/Lüftungs-/Beleuchtungs-] Geräte verwenden.
P280 Schutzhandschuhe/ Schutzkleidung/ Augenschutz/ Gesichtsschutz/ Gehörschutz tragen.
P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen [oder duschen].
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

· 3.2 Chemische Charakterisierung: Gemische
· Beschreibung: Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

· Gefährliche Inhaltsstoffe:

CAS: 64-17-5	Ethanol	 Flam. Liq. 2, H225	>50-≤100%
EINECS: 200-578-6			

· SVHC

64-17-5	Ethanol		
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· Zusätzliche Hinweise: Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· 4.1 Beschreibung der Erste-Hilfe-Maßnahmen
· Nach Einatmen: Frischluftzufuhr, bei Beschwerden Arzt aufsuchen.

· Nach Hautkontakt: Im allgemeinen ist das Produkt nicht hautreizend.

· Nach Augenkontakt: Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.

· Nach Verschlucken: Bei anhaltenden Beschwerden Arzt konsultieren.

· 4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen
Keine weiteren relevanten Informationen verfügbar.
· 4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· 5.1 Löschmittel
· Geeignete Löschmittel: CO₂, Sand, Löschpulver. Kein Wasser verwenden.

· Aus Sicherheitsgründen ungeeignete Löschmittel: Wasser im Vollstrahl

· 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren
Keine weiteren relevanten Informationen verfügbar.

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- **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:** 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.
Nicht mit Wasser oder wässrigen Reinigungsmitteln wegspülen.
- **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**
Bei sachgemäßer Verwendung keine besonderen Maßnahmen erforderlich.
- **Hinweise zum Brand- und Explosionsschutz:**
Zündquellen fernhalten - nicht rauchen.
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.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Entzündbare Flüssigkeiten
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **8.1 Zu überwachende Parameter**
- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

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

64-17-5 Ethanol

AGW	Langzeitwert: 380 mg/m ³ , 200 ml/m ³ 4(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:** Vor den Pausen und bei Arbeitsende Hände waschen.
- **Atemschutz:** Nicht erforderlich.

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· **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. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **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:	Nicht bestimmt.
Geruch:	Charakteristisch
Geruchsschwelle:	Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	78 °C

· **Flammpunkt:** 13 °C

· **Entzündbarkeit (fest, gasförmig):** Leichtentzündlich.

· **Zündtemperatur:** 425 °C

· **Zersetzungstemperatur:** Nicht bestimmt.

· **Selbstentzündungstemperatur:** Das Produkt ist nicht selbstentzündlich.

· **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:** Nicht bestimmt.

· **Relative Dichte:** Nicht bestimmt.

· **Dampfdichte:** Nicht bestimmt.

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· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser:	Nicht bzw. wenig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität:	
Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt:	
Organische Lösemittel:	70,0 %
VOC (EU)	70,00 %
· Festkörpergehalt:	0,0 %
· 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.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **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.
- **Zusätzliche toxikologische Hinweise:**
- **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.

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- **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 (Selbsteinstufung): 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.

ABSCHNITT 14: Angaben zum Transport

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA | <p style="text-align: right;">UN1170</p> |
| <ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG · IATA | <p style="text-align: right;">1170 ETHANOL (ETHYLALKOHOL), Gemisch
ETHANOL (ETHYL ALCOHOL) mixture
ETHANOL mixture</p> |
| <ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR, IMDG, IATA | <div style="text-align: center;">  </div> <p style="text-align: right;">3 Entzündbare flüssige Stoffe
3</p> |
| <ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IMDG, IATA | <p style="text-align: right;">II</p> |
| <ul style="list-style-type: none"> · 14.5 Umweltgefahren: | <p style="text-align: right;">Nicht anwendbar.</p> |
| <ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl): · EMS-Nummer: · Stowage Category | <p style="text-align: right;">Achtung: Entzündbare flüssige Stoffe
33
F-E,S-D
A</p> |

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

· **Transport/weitere Angaben:**

· **ADR**

· **Begrenzte Menge (LQ)**

1L

· **Freigestellte Mengen (EQ)**

Code: E2

Höchste Nettomenge je Innenverpackung: 30 ml

Höchste Nettomenge je Außenverpackung: 500 ml

· **Beförderungskategorie**

2

· **Tunnelbeschränkungscode**

D/E

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1170 ETHANOL (ETHYLALKOHOL), GEMISCH, 3, II

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** Keiner der Inhaltsstoffe ist 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

· **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**

Keiner der Inhaltsstoffe ist enthalten.

· **VERORDNUNG (EU) 2019/1148**

· **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**

Keiner der Inhaltsstoffe ist enthalten.

· **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**

Keiner der Inhaltsstoffe ist enthalten.

· **Verordnung (EG) Nr. 273/2004 betreffend Droгенаusgangsstoffe**

Keiner der Inhaltsstoffe ist enthalten.

· **Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Droгенаustauschstoffen zwischen der Gemeinschaft und Drittländern**

Keiner der Inhaltsstoffe ist enthalten.

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- **Nationale Vorschriften:**
- **Technische Anleitung Luft:**

Klasse	Anteil in %
NK	70,0

- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**

- **Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57**

64-17-5	Ethanol
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- **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.

- **Relevante Sätze**

H225 Flüssigkeit und Dampf leicht entzündbar.

- **Abkürzungen und Akronyme:**

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2

Scheda di dati di sicurezza
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SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** FIRM for Acrylic Resin Sections

· **Articolo numero:** 12780-05

· **UFI:** 5HN2-K02J-D005-H3MD

· **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: info@emsdiasum.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.

· **2.2 Elementi dell'etichetta**

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

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

· **Pittogrammi di pericolo**



GHS02

· **Avvertenza Pericolo**

· **Indicazioni di pericolo**

H225 Liquido e vapori facilmente infiammabili.

· **Consigli di prudenza**

P210

Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato fumare.

P240

Mettere a terra e a massa il contenitore e il dispositivo ricevente.

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- P241 Utilizzare impianti [elettrici/di ventilazione/d'illuminazione] a prova di esplosione.
- P280 Indossare guanti/indumenti protettivi/proteggere gli occhi/proteggere il viso/proteggere l'udito.
- P303+P361+P353 **IN CASO DI CONTATTO CON LA PELLE (o con i capelli):** togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle [o fare una doccia].
- 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

- **3.2 Caratteristiche chimiche: Miscela**
- **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

· **Sostanze pericolose:**

CAS: 64-17-5	etanolo	 Flam. Liq. 2, H225	>50-≤100%
EINECS: 200-578-6			

· **SVHC**

64-17-5	etanolo
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- **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

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 alcuni minuti tenendo le palpebre ben aperte.
- **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.

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** CO₂, sabbia, polvere. Non usare acqua.
- **Mezzi di estinzione inadatti per motivi di sicurezza:** Getti d'acqua
- **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:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

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- **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.
Non dilavare con acqua o detergenti liquidi.
- **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** Per un uso corretto non sono necessari provvedimenti particolari.
- **Indicazioni in caso di incendio ed esplosione:**
Tenere lontano da fonti di calore, non fumare.
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.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

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

· **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:** Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- **Maschera protettiva:** Non necessario.
- **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. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego
- **Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

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· **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: Non definito.

· **Odore:** Caratteristico

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· Cambiamento di stato

Punto di fusione/punto di congelamento: Non definito.

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

· **Punto di infiammabilità:** 13 °C

· **Infiammabilità (solidi, gas):** Facilmente infiammabile.

· **Temperatura di accensione:** 425 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **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:** Non definito.

· **Densità relativa** Non definito.

· **Densità di vapore:** Non definito.

· **Velocità di evaporazione** Non definito.

· **Solubilità in/Miscibilità con acqua:**

Poco e/o non miscibile.

· **Coefficiente di ripartizione: n-ottanolo/acqua:** Non definito.

· Viscosità:

Dinamica: Non definito.

Cinematica: Non definito.

· Tenore del solvente:

Solventi organici: 70,0 %

VOC (CE) 70,00 %

(continua a pagina 5)

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

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Denominazione commerciale: FIRM for Acrylic Resin Sections

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Contenuto solido: 0,0 %

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** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **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.
- **Ulteriori dati tossicologici:**
- **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) (Autoclassificazione): 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.

(continua a pagina 6)

Scheda di dati di sicurezza
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· **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.

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|---|
| · 14.1 Numero ONU
· ADR, IMDG, IATA | UN1170 |
| · 14.2 Nome di spedizione dell'ONU
· ADR
· IMDG
· IATA | 1170 ETANOLO (ALCOL ETILICO) miscela
ETHANOL (ETHYL ALCOHOL) mixture
ETHANOL mixture |
| · 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
· N° identificazione pericolo (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 |

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

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- | | |
|-----------------------------------|--|
| · 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 ETANOLO (ALCOL ETILICO) MISCELA, 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** Nessuno dei componenti è contenuto.
- **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

- **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**

Nessuno dei componenti è contenuto.

- **REGOLAMENTO (UE) 2019/1148**

- **Allegato I - PRECURSORI DI ESPLOSIVI SOGGETTI A RESTRIZIONI (Valore limite superiore ai fini della concessione di licenze a norma dell'articolo 5, paragrafo 3)**

Nessuno dei componenti è contenuto.

- **Allegato II - PRECURSORI DI ESPLOSIVI SOGGETTI A SEGNALAZIONE**

Nessuno dei componenti è contenuto.

- **Regolamento (CE) n. 273/2004 relativo ai precursori di droghe**

Nessuno dei componenti è contenuto.

- **Regolamento (CE) N. 111/2005 recante norme per il controllo del commercio dei precursori di droghe tra la Comunità e i paesi terzi**

Nessuno dei componenti è contenuto.

- **Disposizioni nazionali:**

- **Istruzione tecnica aria:**

Classe	quota in %
NC	70,0

- **Ulteriori disposizioni, limitazioni e decreti proibitivi**

- **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

64-17-5 etanolo

- **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.

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Scheda di dati di sicurezza
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· Frasi rilevanti*H225 Liquido e vapori facilmente infiammabili.***· Abbreviazioni e acronimi:***ADR: Accord relatif au transport international 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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Liquidi infiammabili – Categoria 2*

IT

물질안전보건자료 GHS에 따라라따

인쇄일자: 2022.08.26

개정: 2022.08.26

1 화학제품과 회사에 관한 정보

제품제품제별자

· 제품명: FIRM for Acrylic Resin Sections

· 상품번호: 12780-05

해당 해당 물질이나 혼합물(와) 관련 위험도 및 사용금지용도

· 제품의 권고 용도와 사용 용도에 대한 제한 사항 FIRM for Acrylic Resin Sections

· 제품의 권고 용도와 사용 용도에 대한 제한 사항 시험실 화학품

· 안전데이터표(Safety Data Sheet)내 공급업체 관련 정보

· 제조자/수입자/유통업체 정보

Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.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

Daedok Science, Co. Ltd.
34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com

· 추가적인 정보: 제품 안전 부서 product safety department

· 비상연락 전화번호:

ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

· 순물질 또는 혼합물(와) 분류분류



화염

인화성 액체 - 구분2 H225 고인화성 액체 및 증기

· 라벨표기요소요소

· 라벨표기요소

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

· GHS 그림문자



GHS02

· 신호어 위험

(2 쪽에 계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2022.08.26

개정: 2022.08.26

제품명: FIRM for Acrylic Resin Sections

보호 보호 보호

(3 쪽부터 계속)



꼭조이는보안경

9 물리화학적 특성

기본 정보: 물리화학적 특성에 대한 기본 정보

· 일반정보	
외형/외형의형	
· 물리적 상태	액체
· 색:	알맞지않다.
· 냄새/냄새	특색있는
· 후각역치	알맞지않다.
· pH:	알맞지않다.
· 상태변화	
· 녹는점/어는점:	맞지않는
· 초기/초기 끓는점과 끓는점 범위	78 °C
· 인화점:	13 °C
· 인화성 고체/기체/기체	쉽게발화하는
· 점화온도:	425 °C
· 분해 온도	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.
· 인화 안전 인자/폭발 위험 인자 상한/하한	
· 아래로:	3.5 Vol %
· 위로/위로	15 Vol %
· 증기압 의경우 20 °C:	59 hPa
· 밀도/밀도/밀도	맞지않는다.
· 비중/비중/비중	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 증발 증발 속도	알맞지않다.
· 용해도:	
· 물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도/점도/점도	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매 내용물	
· 유기용매:	70.0 %
· VOC (EU)	70.00 %

(5 쪽에 계속)

물질안전보건자료

GHS에 따라 라다

인쇄일자: 2022.08.26


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제품명: FIRM for Acrylic Resin Sections

(5 쪽부터 계속)

· 비위생적 포장포장
권고 권고 권고 권고 의지침에 입각한 쓰레기 처리.

14 운송에 필요한 정보

유엔 유엔 유엔 번호 · ADR, IMDG, IATA	UN1170
· 적정적정 적정명 · ADR · IMDG · IATA	1170 ETHANOL (ETHYL ALCOHOL) mixture ETHANOL (ETHYL ALCOHOL) mixture ETHANOL mixture
교통 교통 교통 위험 클래스 · ADR, IMDG, IATA	
	
등급 등급 등급 · 위험도 라벨라벨	3 발화성용액 3
· 용기 등급 · ADR, IMDG, IATA	II
· 환경적 유해물질:	해당사항 없음.
· 이 용기 특별 취급 조치 위험 위험 위험 코드 · E 번호 번호 · Stowage Category	경고: 발화성용액 33 F-E,S-D A
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크별 운송 운송	해당사항 없음.
· 운송/추가정보	
· ADR 한정량 (제한량) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
운송 운송 구분 터널 터널 제한 코드	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

(7 쪽에 계속)

물질안전보건자료
GHS에 따라라따

인쇄일자: 2022.08.26

개정: 2022.08.26

제품명: FIRM for Acrylic Resin Sections

(6 쪽부터계속)

· ~~UN번호~~ 유제

UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE,
3, II

15 법적 규제현황

· 산업안전보건법에 의해규제

제조제조금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

어떠한내용물도목록화되어있지않다

· 작업환경측정 대상 유해인자

어떠한내용물도목록화되어있지않다

· 특수건강진단 대상 유해인자

어떠한내용물도목록화되어있지않다

해당 해당 물질 또는 혼합물에는 대한 안전보건자료 작성 의무사항을 법률 별첨적인 정보가 존재하지 않습니다.

· Korean Existing Chemical Inventory

64-17-5	Ethyl alcohol	KE-13217
10510-54-0	Cresyl Violet Acetate	KE-09708

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 400 리터

등록등록대상물질

어떠한내용물도목록화되어있지않다

· '21년까지 등록하여야 할 압, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 유해화학물질

어떠한내용물도목록화되어있지않다

· 종점관리물질(재관전관련관련

어떠한내용물도목록화되어있지않다

· 라벨 라벨요소

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

(8 쪽에계속)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 26.08.2022

Revisión: 26.08.2022

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

- **1.1 Identificador del producto**
- **Nombre comercial:** FIRM for Acrylic Resin Sections
- **Número del artículo:** 12780-05
- **UFI:** 5HN2-K02J-D005-H3MD
- **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: info@emsdiasum.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.

- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**
El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
- **Pictogramas de peligro**



GHS02

- **Palabra de advertencia** Peligro
- **Indicaciones de peligro**
H225 Líquido y vapores muy inflamables.
- **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.

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- P240 Toma de tierra y enlace equipotencial del recipiente y del equipo receptor.
- P241 Utilizar material [eléctrico/ de ventilación/iluminación] antideflagrante.
- P280 Llevar guantes/ropa de protección/equipo de protección para los ojos/la cara/los oídos.
- P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente toda la ropa contaminada. Enjuagar la piel con agua [o ducharse].
- 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

- **3.2 Caracterización química: Mezclas**
- **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

- **Componentes peligrosos:**

CAS: 64-17-5	etanol	 Flam. Liq. 2, H225	>50-≤100%
EINECS: 200-578-6			

- **SVHC**

64-17-5	etanol
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- **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

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 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.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** CO2, arena, polvo extintor. No utilizar agua.
- **Sustancias extintoras inapropiadas por razones de seguridad:** Agua a pleno chorro
- **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:** Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

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- **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.
No enjuagar con agua ni productos de limpieza acuosos.
- **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**
Si se manipulan correctamente, no se requieren medidas especiales.
- **Prevención de incendios y explosiones:**
Mantener alejadas las fuentes de encendido. No fumar.
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.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

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

· **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:** Lavarse las manos antes de las pausas y al final del trabajo.
- **Protección respiratoria:** No es necesario.
- **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. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

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· **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:

No determinado.

· **Olor:**

Característico

· **Umbral olfativo:**

No determinado.

· **valor pH:**

No determinado.

· **Cambio de estado**

Punto de fusión/punto de congelación:

Indeterminado.

Punto inicial de ebullición e intervalo de ebullición:

78 °C

· **Punto de inflamación:**

13 °C

· **Inflamabilidad (sólido, gas):**

Fácilmente inflamable.

· **Temperatura de ignición:**

425 °C

· **Temperatura de descomposición:**

No determinado.

· **Temperatura de auto-inflamación:**

El producto no es autoinflamable.

· **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:**

Indeterminado.

· **Densidad relativa**

No determinado.

· **Densidad de vapor**

No determinado.

· **Tasa de evaporación:**

No determinado.

· **Solubilidad en / miscibilidad con agua:**

Poco o no mezclable.

· **Coefficiente de reparto: n-octanol/agua:**

No determinado.

· **Viscosidad:**

Dinámica:

No determinado.

Cinemática:

No determinado.

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· Concentración del disolvente:	
Disolventes orgánicos:	70,0 %
VOC (CE)	70,00 %
Contenido de cuerpos sólidos:	0,0 %
· 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** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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.
- **Indicaciones toxicológicas adicionales:**
- **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 (autoclasiación): escasamente peligroso para el agua

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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.

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) Mezcla

· **IMDG**

ETHANOL (ETHYL ALCOHOL) mixture

· **IATA**

ETHANOL mixture

· **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 de identificación de peligro (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

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· Categoría de transporte	2
· Código de restricción del túnel	D/E
<hr style="border-top: 1px dashed black;"/>	
· 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) MEZCLA, 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** ninguno de los componentes está incluido en una lista

· **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

· **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**

ninguno de los componentes está incluido en una lista

· **REGLAMENTO (UE) 2019/1148**

· **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**

ninguno de los componentes está incluido en una lista

· **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**

ninguno de los componentes está incluido en una lista

· **Reglamento (CE) no 273/2004 sobre precursores de drogas**

ninguno de los componentes está incluido en una lista

· **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**

ninguno de los componentes está incluido en una lista

· **Disposiciones nacionales:**

· **Demás disposiciones, limitaciones y decretos prohibitivos**

· **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**

64-17-5 | etanol

· **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.

· **Frasas relevantes**

H225 Líquido y vapores muy inflamables.

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· Abreviaturas y acrónimos:

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Líquidos inflamables – Categoría 2

ES

Säkerhetsdatablad
enligt förordning (EG) nr. 1907/2006, Artikel 31

Datum för utskrift: 26.08.2022

Omarbetad: 26.08.2022

AVSNITT 1: Namnet på ämnet/blandningen och bolaget/företaget

- **1.1 Produktbeteckning**
- **Handelsnamn:** FIRM for Acrylic Resin Sections
- **Artikelnummer:** 12780-05
- **UFI:** 5HN2-K02J-D005-H3MD
- **1.2 Relevanta identifierade användningar av ämnet eller blandningen och användningar som det avråds från**
Ingen ytterligare relevant information finns till förfogande.
- **Ämnets användning / tillredningen** Laboratoriekemikalier
- **1.3 Närmare upplysningar om den som tillhandahåller säkerhetsdatablad**
- **Tillverkare/leverantör:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Område där upplysningar kan inhämtas:** Product safety department
- **1.4 Telefonnummer för nödsituationer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

AVSNITT 2: Farliga egenskaper

- **2.1 Klassificering av ämnet eller blandningen**
- **Klassificering enligt förordning (EG) nr 1272/2008**



GHS02 flamma

Flam. Liq. 2 H225 Mycket brandfarlig vätska och ånga.

- **2.2 Märkningsuppgifter**
- **Märkning enligt förordning (EG) nr 1272/2008** Produkten är klassificerad och märkt enligt CLP-förordningen.
- **Faropiktogram**



GHS02

- **Signalord** Fara
- **Faroangivelser**
H225 Mycket brandfarlig vätska och ånga.
- **Skyddsangivelser**
 - P210 Får inte utsättas för värme, heta ytor, gnistor, öppna lågor och andra antändningskällor. Rökning förbjuden.
 - P240 Jorda och potentialförbind behållare och mottagarutrustning.
 - P241 Använd explosionssäker [elektrisk/ventilations-/belysnings-]utrustning.
 - P280 Använd skyddshandskar/skyddskläder/ ögonskydd/ansiktsskydd/hörselskydd.
 - P303+P361+P353 VID HUDKONTAKT (även håret): Ta omedelbart av alla nedstänkta kläder. Skölj huden med vatten [eller duscha].
 - P501 Innehållet / behållaren avfallshanteras enligt lokala / regionala / nationella / internationella föreskrifter.

(Fortsättning på sida 2)

Säkerhetsdatablad
enligt förordning (EG) nr. 1907/2006, Artikel 31

Datum för utskrift: 26.08.2022

Omarbetad: 26.08.2022

Handelsnamn: FIRM for Acrylic Resin Sections

(Fortsättning från sida 1)

- **2.3 Andra faror**
- **Resultat av PBT- och vPvB-bedömningen**
- **PBT:** Ej användbar.
- **vPvB:** Ej användbar.

AVSNITT 3: Sammansättning/information om beståndsdelar

- **3.2 Kemisk karakterisering: Blandningar**
- **Beskrivning:** Blandning bestående av nedan upplistade ämnen med ofarliga tillsatser.

- **Farliga ingredienser:**

CAS: 64-17-5 EINECS: 200-578-6	etanol	 Flam. Liq. 2, H225	>50-≤100%
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- **SVHC**

64-17-5	etanol
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- **Ytterligare hänvisningar:** De angivna farohänvisningarnas ordalydelse framgår av kapitel 16.

AVSNITT 4: Åtgärder vid första hjälpen

- **4.1 Beskrivning av åtgärder vid första hjälpen**
- **Vid inandning:** Tillförsel av friskluft, vid besvär kontakta läkare.
- **Vid kontakt med huden:** I allmänhet kan produkten ej irritera huden.
- **Vid kontakt med ögonen:** Spola ögonen öppna i flera minuter under rinnande vatten.
- **Vid förtäring:** Om besvär kvarstår, kontakta läkare.
- **4.2 De viktigaste symptomen och effekterna, både akuta och fördröjda**
Ingen ytterligare relevant information finns till förfogande.
- **4.3 Angivande av omedelbar medicinsk behandling och särskild behandling som eventuellt krävs**
Ingen ytterligare relevant information finns till förfogande.

AVSNITT 5: Brandbekämpningsåtgärder

- **5.1 Släckmedel**
- **Lämpliga släckningsmedel:** CO₂, sand, släckningspulver. Använd inget vatten.
- **Släckningsmedel som är olämpliga av säkerhetsskäl:** Vatten med full stråle
- **5.2 Särskilda faror som ämnet eller blandningen kan medföra**
Ingen ytterligare relevant information finns till förfogande.
- **5.3 Råd till brandbekämpningspersonal**
- **Speciell skyddsutrustning:** Inga speciella åtgärder krävs.

AVSNITT 6: Åtgärder vid oavsiktliga utsläpp

- **6.1 Personliga skyddsåtgärder, skyddsutrustning och åtgärder vid nödsituationer**
Använd skyddsutrustning. Håll oskyddade personer på avstånd.
- **6.2 Miljöskyddsåtgärder:** Förhindra produkten att tränga ner i avloppsnät/ytvatten/grundvatten.
- **6.3 Metoder och material för inneslutning och sanering:**
Sug upp med vätskebindande material (sand, kiselgur, syrabindemedel, universalbindemedel, sågspån).
Se till att ventilationen är tillräcklig.
Spola ej bort med vatten eller vattenhaltiga rengöringsmedel.
- **6.4 Hänvisning till andra avsnitt**
Information beträffande säker hantering se kapitel 7.

(Fortsättning på sida 3)

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Information beträffande personlig skyddsutrustning se kapitel 8.
Information beträffande avfallshantering se kapitel 13.

AVSNITT 7: Hantering och lagring

- **7.1 Försiktighetsmått för säker hantering** Vid sakkunnig användning krävs inga speciella åtgärder.
- **Hänvisningar beträffande brand- och explosionsskydd:**
Håll åtskild från antändningskällor - rök ej.
Vidta åtgärder mot elektrostatisk uppladdning.
- **7.2 Förhållanden för säker lagring, inklusive eventuell oförenlighet**
- **Lagring:**
- **Krav på lagerutrymmen och behållare:** Förvaras svalt.
- **Hänvisningar beträffande sammanlagring:** Erfordras ej.
- **Ytterligare uppgifter till lagringsvillkoren:**
Förvara behållaren tätt tillsluten.
Förvaras svalt och torrt i väl tillslutet emballage.
- **7.3 Specifik slutanvändning** Ingen ytterligare relevant information finns till förfogande.

AVSNITT 8: Begränsning av exponeringen/personligt skydd

- **8.1 Kontrollparametrar**
- **Ytterligare hänvisningar beträffande utformning av tekniska anläggningar:** Inga övriga uppgifter, se punkt 7.

- **Ämnen med yrkeshygieniska gränsvärden som bör övervakas:**

64-17-5 etanol

OEL	Korttidsvärde: 1900 mg/m ³ , 1000 ppm
	Nivågränsvärde: 1000 mg/m ³ , 500 ppm
V	

- **Ytterligare hänvisningar:** De vid framställningen gällande listorna har använts som utgångspunkt.
- **8.2 Begränsning av exponeringen**
- **Personlig skyddsutrustning:**
- **Allmänna skydds- och hygienåtgärder:** Tvätta händerna före raster och efter arbetet.
- **Andningsskydd:** Erfordras ej.
- **Handskydd:**
Handskmaterialet måste vara tätt och beständigt mot produkt/ämne/tillredning.
Handskmaterialrekommendationer kan inte ges för produkt/tillredning/kemikalielösning, då inga tester genomförts.
Val av handskmaterial beaktande penetrationstider, permeationskvoter och degradation.
- **Handskmaterial**
Val av lämplig handske är inte enbart beroende av material utan även av andra kvalitetskriterier och varierar från en tillverkare till nästa. Då produkten bereds av flera material, kan handskmaterialets beständighet inte förutses och måste därför kontrolleras före användningen.
- **Handskmaterialets penetreringstid**
Exakt penetrationstid fastställs av skyddshandskarnas tillverkare och skall beaktas.

(Fortsättning på sida 4)

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(Fortsättning från sida 3)

· Ögonskydd:

Tättslutande skyddsglasögon

AVSNITT 9: Fysikaliska och kemiska egenskaper**· 9.1 Information om grundläggande fysikaliska och kemiska egenskaper****· Allmänna uppgifter****· Utseende:**

Form:	Vätska
Färg:	Ej bestämd.
Lukt:	Karaktäristisk
Luktröskel:	Ej bestämd.

· pH-värde: Ej bestämd.**· Tillståndsändring**

Smältpunkt/frys punkt:	Ej bestämd.
Initial kokpunkt och kokpunktsintervall:	78 °C

· Flampunkt: 13 °C**· Brandfarlighet (fast form, gas):** Mycket brandfarligt.**· Tändtemperatur:** 425 °C**· Sönderfallstemperatur:** Ej bestämd.**· Självantändningstemperatur:** Produkten är ej självantändande.**· Explosiva egenskaper:** Produkten är ej explosionsfarlig, men bildning av explosionsfarliga ångluft-blandningar är möjlig.**· Explosionsgränser:**

Nedre:	3,5 Vol %
Övre:	15 Vol %

· Ångtryck vid 20 °C: 59 hPa**· Densitet:** Ej bestämd.**· Relativ densitet:** Ej bestämd.**· Ångdensitet:** Ej bestämd.**· Avdunstningshastighet:** Ej bestämd.**· Löslighet i / blandbarhet med****Vatten:** Ej resp. föga blandbar.**· Fördelningskoefficient: n-oktanol/vatten:** Ej bestämd.**· Viskositet:****Dynamisk:** Ej bestämd.**Kinematisk:** Ej bestämd.**· Lösningsmedelhalt:**

Organiska lösningsmedel:	70,0 %
VOC (EG)	70,00 %

(Fortsättning på sida 5)

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Andel av fasta partiklar:	0,0 %
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· 9.2 Annan information	Ingen ytterligare relevant information finns till förfogande.
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AVSNITT 10: Stabilitet och reaktivitet

- **10.1 Reaktivitet** Ingen ytterligare relevant information finns till förfogande.
- **10.2 Kemisk stabilitet**
- **Termisk sönderdelning / förhållanden som bör undvikas:** Inget sönderfall vid ändamålsenlig användning.
- **10.3 Risken för farliga reaktioner** Inga farliga reaktioner kända.
- **10.4 Förhållanden som ska undvikas** Ingen ytterligare relevant information finns till förfogande.
- **10.5 Oförenliga material:** Ingen ytterligare relevant information finns till förfogande.
- **10.6 Farliga sönderdelningsprodukter:** Inga farliga sönderfallsprodukter kända.

AVSNITT 11: Toxikologisk information

- **11.1 Information om de toxikologiska effekterna**
- **Akut toxicitet** Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Primär retningseffekt:**
- **Frätande/irriterande på huden**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Allvarlig ögonskada/ögonirritation**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Luftvägs-/hudsensibilisering**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Ytterligare toxikologiska hänvisningar:**
- **CMR-effekter (cancerframkallande, mutagena och reproduktionstoxiska egenskaper)**
- **Mutagenitet i könsceller**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Cancerogenitet** Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Reproduktionstoxicitet**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Specifik organtoxicitet – enstaka exponering**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Specifik organtoxicitet – upprepad exponering**
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Fara vid aspiration** Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.

AVSNITT 12: Ekologisk information

- **12.1 Toxicitet**
- **Akvatisk toxicitet:** Ingen ytterligare relevant information finns till förfogande.
- **12.2 Persistens och nedbrytbarhet** Ingen ytterligare relevant information finns till förfogande.
- **12.3 Bioackumuleringsförmåga** Ingen ytterligare relevant information finns till förfogande.
- **12.4 Rörlighet i jord** Ingen ytterligare relevant information finns till förfogande.
- **Ytterligare ekologiska hänvisningar:**
- **Allmänna hänvisningar:**
Vattenföroreningsklass 1 (Självtvärdering): liten risk för vattenförorening.
Låt ej tränga ner i grundvatten, vattendrag eller i avloppsnätet i outspätt tillstånd resp. i större mängder.

(Fortsättning på sida 6)

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- **12.5 Resultat av PBT- och vPvB-bedömningen**
- **PBT:** Ej användbar.
- **vPvB:** Ej användbar.
- **12.6 Andra skadliga effekter** Ingen ytterligare relevant information finns till förfogande.

AVSNITT 13: Avfallshantering

- **13.1 Avfallsbehandlingsmetoder**
- **Rekommendation:** Får inte deponeras ihop med hushållsavfall. Får inte tömmas i avloppsnätet.
- **Ej rengjorda förpackningar:**
- **Rekommendation:** Avfallshanteras enligt myndigheters föreskrifter.

AVSNITT 14: Transportinformation

- | | |
|--|--|
| · 14.1 UN-nummer
· ADR, IMDG, IATA | UN1170 |
| · 14.2 Officiell transportbenämning
· ADR
· IMDG
· IATA | 1170 ETANOL (ETYLALKOHOL), Blandning
ETHANOL (ETHYL ALCOHOL) mixture
ETHANOL mixture |
| · 14.3 Faroklass för transport
· ADR, IMDG, IATA | |
|  | |
| · Klass
· Etikett | 3 Brandfarliga vätskor
3 |
| · 14.4 Förpackningsgrupp
· ADR, IMDG, IATA | II |
| · 14.5 Miljöfaror: | Ej användbar. |
| · 14.6 Särskilda skyddsåtgärder
· Farlighetsnummer (Kemler-tal):
· EMS-nummer:
· Stowage Category | Varning: Brandfarliga vätskor
33
F-E,S-D
A |
| · 14.7 Bulktransport enligt bilaga II till Marpol 73/78 och IBC-koden | Ej användbar. |
| · Transport / ytterligare uppgifter: | |
| · ADR
· Begränsade mängder (LQ)
· Reducerade mängder (EQ) | 1L
Kod: E2
Högsta nettomängd per innerförpackning: 30 ml
Högsta nettomängd per ytterförpackning: 500 ml |
| · Transportkategori
· Tunnelrestriktionskod | 2
D/E |

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(Fortsättning från sida 6)

- | | |
|-----------------------------------|--|
| · 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 (ETYLALKOHOL), BLANDNING, 3, II |

AVSNITT 15: Gällande föreskrifter

- **15.1 Föreskrifter/lagstiftning om ämnet eller blandningen när det gäller säkerhet, hälsa och miljö**
- **Direktiv 2012/18/EU**
- **Namngivna farliga ämnen - BILAGA I** Inga beståndsdelar är listade.
- **Seveso-kategorier P5c BRANDFARLIGA VÄTSKOR**
- **Tröskelvärden (i ton) för tillämpning av krav för lägre nivå 5.000 t**
- **Tröskelvärden (i ton) för tillämpning av krav för övre nivå 50.000 t**
- **Förordning (EG) nr 1907/2006 BILAGA XVII Villkor: 3**
- **Direktiv 2011/65/EU om begränsning av användning av vissa farliga ämnen i elektrisk och elektronisk utrustning - Bilaga II**
- Inga beståndsdelar är listade.
- **FÖRORDNING (EU) 2019/1148**
- **Bilaga I - SPRÄNGÄMNESPREKURSORER SOM OMFATTAS AV RESTRIKTIONER (Övre gränsvärde för beviljande av tillstånd enligt artikel 5.3)**
- Inga beståndsdelar är listade.
- **Bilaga II - SPRÄNGÄMNESPREKURSORER SOM OMFATTAS AV RAPPORTERINGSKRAV**
- Inga beståndsdelar är listade.
- **Förordning (EG) nr 273/2004 om narkotikaprekursorer**
- Inga beståndsdelar är listade.
- **Förordning (EG) nr 111/2005 om regler för övervakning av handeln med narkotikaprekursorer mellan gemenskapen och tredjeländer**
- Inga beståndsdelar är listade.
- **Nationella föreskrifter:**
- **Övriga föreskrifter, begränsningar och förbudsbestämmelser**
- **Ämnen som inger mycket stora betänkligheter (SVHC) enligt REACH, artikel 57**
- 64-17-5 etanol
- **15.2 Kemikaliesäkerhetsbedömning: En kemikaliesäkerhetsbedömning har ej gjorts.**

AVSNITT 16: Annan information

Uppgifterna är baserade på våra aktuella kunskaper. De representerar emellertid ingen som helst garanti beträffande produktgenskaper och utgör ingen grund för ett avtalat rättsförhållande.

- **Relevanta fraser**
H225 Mycket brandfarlig vätska och ånga.
- **Förkortningar och akronymer:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Brandfarliga vätskor – Kategori 2

(Fortsättning från sida 7)

SE