

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/23/2015

Reviewed on 11/23/2015

## 1 Identification

- **Product identifier**
- **Trade name:** DIETRICH'S FIXATIVE
- **Article number:** 15958-20, 15958-10
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.  
Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
formaldehyde  
Ethyl Alcohol, Absolute, 200 Proof  
Reagent, ACS (Ethanol)  
15055

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**Trade name: DIETRICH'S FIXATIVE**

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· **Hazard statements**

Harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 Suspected of causing genetic defects.  
 May cause cancer.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wear protective gloves / eye protection / face protection.  
 Wear protective gloves.  
 Wear eye protection / face protection.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Specific treatment (see on this label).  
 If swallowed: Call a poison center/doctor if you feel unwell.  
 Wash contaminated clothing before reuse.  
 IF exposed or concerned: Get medical advice/attention.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Rinse mouth.  
 If on skin: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1  
 Fire = 0  
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1  
 Fire = 0  
 Reactivity = 0

· **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.

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<b>· Dangerous components:</b>		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	25-50%
50-00-0	formaldehyde	2.5-10%
64-19-7	Acetic Acid Glacial	≤ 2.5%
67-56-1	Methyl Alcohol	≤ 2.5%
67-63-0	propan-2-ol	≤ 2.5%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

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

PEL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppm

REL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppm

TLV Short-term value: 1880 mg/m<sup>3</sup>, 1000 ppm

### 50-00-0 formaldehyde

PEL Short-term value: 2 ppm  
 Long-term value: 0.75 ppm  
 see 29 CFR 1910.1048(c)

REL Long-term value: 0.016 ppm  
 Ceiling limit value: 0.1\* ppm  
 \*15-min; See Pocket Guide App. A

TLV Ceiling limit value: 0.37 mg/m<sup>3</sup>, 0.3 ppm  
 (SEN) NIC-DSEN; RSEN

### 64-19-7 Acetic Acid Glacial

PEL Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

REL Short-term value: 37 mg/m<sup>3</sup>, 15 ppm  
 Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

TLV Short-term value: 37 mg/m<sup>3</sup>, 15 ppm  
 Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

### 67-56-1 Methyl Alcohol

PEL Long-term value: 260 mg/m<sup>3</sup>, 200 ppm

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<i>REL</i>	<i>Short-term value: 325 mg/m<sup>3</sup>, 250 ppm</i> <i>Long-term value: 260 mg/m<sup>3</sup>, 200 ppm</i> <i>Skin</i>
<i>TLV</i>	<i>Short-term value: 328 mg/m<sup>3</sup>, 250 ppm</i> <i>Long-term value: 262 mg/m<sup>3</sup>, 200 ppm</i> <i>Skin; BEI</i>
<b>67-63-0 propan-2-ol</b>	
<i>PEL</i>	<i>Long-term value: 980 mg/m<sup>3</sup>, 400 ppm</i>
<i>REL</i>	<i>Short-term value: 1225 mg/m<sup>3</sup>, 500 ppm</i> <i>Long-term value: 980 mg/m<sup>3</sup>, 400 ppm</i>
<i>TLV</i>	<i>Short-term value: 984 mg/m<sup>3</sup>, 400 ppm</i> <i>Long-term value: 492 mg/m<sup>3</sup>, 200 ppm</i> <i>BEI</i>
<b>· Ingredients with biological limit values:</b>	
<b>67-56-1 Methyl Alcohol</b>	
<i>BEI</i>	<i>15 mg/L</i> <i>Medium: urine</i> <i>Time: end of shift</i> <i>Parameter: Methanol (background, nonspecific)</i>
<b>67-63-0 propan-2-ol</b>	
<i>BEI</i>	<i>40 mg/L</i> <i>Medium: urine</i> <i>Time: end of shift at end of workweek</i> <i>Parameter: Acetone (background, nonspecific)</i>

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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.

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- **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:**

<b>Form:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Pungent
<b>Odour threshold:</b>	Not determined.

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

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

- **Flash point:** Not applicable.

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

- **Ignition temperature:** 300 °C (572 °F)

- **Decomposition temperature:** Not determined.

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

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	73.0 Vol %

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

- **Density at 20 °C (68 °F):** 1.6 g/cm<sup>3</sup> (13.352 lbs/gal)

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

**Water:** Fully miscible.

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

- **Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

- **Solvent content:**

**Organic solvents:** 42.0 %

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<b>Water:</b>	58.0 %
<b>VOC content:</b>	42.0 %
	9333.3 g/l / 77.89 lb/gl
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

50-00-0 formaldehyde

Oral	LD50	>200 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant  
Carcinogenic.

- **Carcinogenic categories**

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

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	I
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50-00-0	formaldehyde	I
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67-63-0	propan-2-ol	3
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- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
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- **OSHA-Ca (Occupational Safety Health Administration)**

50-00-0	formaldehyde	
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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **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 2 (Self-assessment): hazardous for water*  
*Do not allow product to reach ground water, water course or sewage system.*  
*Danger to drinking water if even small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

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

## 14 Transport information

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

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· <b>Packing group</b> · <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids 30 F-E,S-D
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b> · <b>DOT</b> · <b>Quantity limitations</b>	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· <b>ADR</b> · <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN1170, Ethanol solutions, 3, III

## 15 Regulatory information

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

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

50-00-0	formaldehyde
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· **Section 313 (Specific toxic chemical listings):**

50-00-0	formaldehyde
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67-56-1	Methyl Alcohol
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67-63-0	propan-2-ol
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· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.
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· **Proposition 65**

· **Chemicals known to cause cancer:**

50-00-0	formaldehyde
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.
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· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.
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· **Chemicals known to cause developmental toxicity:**

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055
67-56-1	Methyl Alcohol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

50-00-0	formaldehyde	B1
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· **TLV (Threshold Limit Value established by ACGIH)**

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	A3
50-00-0	formaldehyde	A2
67-63-0	propan-2-ol	A4

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

50-00-0	formaldehyde
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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07    GHS08

· **Signal word** *Danger*

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

formaldehyde  
Ethyl Alcohol, Absolute, 200 Proof  
Reagent, ACS (Ethanol)  
15055

· **Hazard statements**

Harmful if swallowed.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause cancer.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves.  
Wear eye protection / face protection.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing must not be allowed out of the workplace.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Specific treatment (see on this label).

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**Trade name: DIETRICH'S FIXATIVE**

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*If swallowed: Call a poison center/doctor if you feel unwell.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

*If skin irritation or rash occurs: Get medical advice/attention.*

*If eye irritation persists: Get medical advice/attention.*

*Rinse mouth.*

*If on skin: Wash with plenty of water.*

*Take off contaminated clothing and wash it before reuse.*

*Store locked up.*

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

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*

*Exceptions can be made by the authorities in certain cases.*

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

## 16 Other information

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

· **Date of preparation / last revision** 11/23/2015 / -

· **Abbreviations and acronyms:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Acute Tox. 4: Acute toxicity, Hazard Category 4*

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

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

*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

*Muta. 2: Germ cell mutagenicity, Hazard Category 2*

*Carc. 1A: Carcinogenicity, Hazard Category 1A*

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

Printing date 23.11.2015

Revision: 23.11.2015

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

- **Product identifier**
- **Trade name:** DIETRICH'S FIXATIVE
- **Article number:** 15958-20, 15958-10
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazards identification

- **Classification of the substance or mixture**



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

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

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· **Hazard pictograms**

GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***formaldehyde**Ethyl Alcohol, Absolute, 200 Proof**Reagent, ACS (Ethanol)**15055*· **Hazard statements***Harmful if swallowed.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**Suspected of causing genetic defects.**May cause cancer.*· **Precautionary statements***Avoid breathing dust/fume/gas/mist/vapours/spray.**Wear protective gloves / eye protection / face protection.**Wear protective gloves.**Wear eye protection / face protection.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Contaminated work clothing should not be allowed out of the workplace.**Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Specific treatment (see on this label).**IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**Wash contaminated clothing before reuse.**IF exposed or concerned: Get medical advice/attention.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Rinse mouth.**IF ON SKIN: Wash with plenty of water.**Take off contaminated clothing and wash it before reuse.**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/information on ingredients

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

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· <b>Dangerous components:</b>		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	25-50%
50-00-0	formaldehyde	2.5-10%
64-19-7	Acetic Acid Glacial	≤ 2.5%
67-56-1	Methyl Alcohol	≤ 2.5%
67-63-0	propan-2-ol	≤ 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 4 First aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

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

· **After swallowing:** Call for a doctor immediately.

· **Information for doctor:**

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

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

No further relevant information available.

#### 5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

· **Advice for firefighters**

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

#### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

· **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

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

NES | Long-term value: 1880 mg/m<sup>3</sup>, 1000 ppm

**50-00-0 formaldehyde**

NES | Short-term value: 2.5 mg/m<sup>3</sup>, 2 ppm  
Long-term value: 1.2 mg/m<sup>3</sup>, 1 ppm  
Sen

**64-19-7 Acetic Acid Glacial**

NES | Short-term value: 37 mg/m<sup>3</sup>, 15 ppm  
Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

**67-56-1 Methyl Alcohol**

NES | Short-term value: 328 mg/m<sup>3</sup>, 250 ppm  
Long-term value: 262 mg/m<sup>3</sup>, 200 ppm  
Sk

**67-63-0 propan-2-ol**

NES | Short-term value: 1230 mg/m<sup>3</sup>, 500 ppm  
Long-term value: 983 mg/m<sup>3</sup>, 400 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.

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Avoid contact with the eyes and skin.

· **Respiratory protection:**

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

· **Protection of hands:**



Protective gloves

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:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Clear
· <b>Odour:</b>	Pungent
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** Not applicable.

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

· **Ignition temperature:** 300 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· <b>Lower:</b>	3.5 Vol %
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<b>Upper:</b>	73.0 Vol %
· <b>Vapour pressure at 20 °C:</b>	59 hPa
· <b>Density at 20 °C:</b>	1.6 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	42.0 %
<b>Water:</b>	58.0 %
<b>VOC (EC)</b>	42.00 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

**50-00-0 formaldehyde**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

Carcinogenic.

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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Muta. 2, Carc. 1A


## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

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

## 14 Transport information

- |   |  |
|---|--|
| · <b>UN-Number</b>  |  |
| · <b>ADG, IMDG, IATA</b>  | UN1170   |
| · <b>UN proper shipping name</b>  |  |
| · <b>ADG</b>  | 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| · <b>IMDG</b>   | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)      |
| · <b>IATA</b>   | ETHANOL SOLUTION                               |
| · <b>Transport hazard class(es)</b>   |  |
| · <b>ADG, IMDG, IATA</b>  |  |
|  |  |
| · <b>Class</b>  | 3 Flammable liquids.                           |
| · <b>Label</b>  | 3  |

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· <b>Packing group</b> · <b>ADG, IMDG, IATA</b>	<b>III</b>
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	<b>No</b>
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	<b>Warning: Flammable liquids.</b> <b>30</b> <b>F-E,S-D</b>
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	<b>Not applicable.</b>
· <b>Transport/Additional information:</b>	
· <b>ADG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <b>Maximum net quantity per inner packaging: 30 ml</b> <b>Maximum net quantity per outer packaging: 1000 ml</b>
· <b>Transport category</b> · <b>Tunnel restriction code</b>	<b>3</b> <b>D/E</b>
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <b>Maximum net quantity per inner packaging: 30 ml</b> <b>Maximum net quantity per outer packaging: 1000 ml</b>
· <b>UN "Model Regulation":</b>	<b>UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III</b>

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

50-00-0	formaldehyde	S2, S6, S10
64-19-7	Acetic Acid Glacial	S2, S5, S6
67-56-1	Methyl Alcohol	S5, S6

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

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

formaldehyde

Ethyl Alcohol, Absolute, 200 Proof

Reagent, ACS (Ethanol)

15055

- **Hazard statements**

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

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

Contaminated work clothing should not be allowed out of the workplace.

Obtain special instructions before use.

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

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

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

Wash contaminated clothing before reuse.

**IF exposed or concerned:** Get medical advice/attention.

**If skin irritation or rash occurs:** Get medical advice/attention.

**If eye irritation persists:** Get medical advice/attention.

Rinse mouth.

**IF ON SKIN:** Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

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.

- **National regulations:**

- **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

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

## 16 Other information

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

- **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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*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)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Muta. 2: Germ cell mutagenicity, Hazard Category 2*  
*Carc. 1A: Carcinogenicity, Hazard Category 1A*

AU

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/23/2015

Reviewed on 11/23/2015

## 1 Identification

- **Product identifier**
- **Trade name:** DIETRICH'S FIXATIVE
- **Article number:** 15958-20, 15958-10
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.  
Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Not applicable.



Toxic  
May cause cancer.



Harmful  
Harmful if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.



Irritant  
Irritating to eyes and skin. May cause sensitisation by skin contact.

- **Information concerning particular hazards for human and environment:**  
The product has to be labeled due to the calculation procedure of international guidelines.

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Trade name: **DIETRICH'S FIXATIVE**

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- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

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

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



Toxic

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

formaldehyde

- **Risk phrases:**

May cause cancer.

Also harmful if swallowed.

Irritating to eyes and skin.

May cause sensitisation by skin contact.

Also harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

- **Safety phrases:**

Avoid exposure - obtain special instructions before use.

Avoid contact with skin.

Wear suitable gloves and eyeface protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

- **Hazard description:**

- **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects



- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 0

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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Trade name: **DIETRICH'S FIXATIVE**

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### 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, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	10-30%
50-00-0	formaldehyde	5-10%
64-19-7	Acetic Acid Glacial	1-5%
67-56-1	Methyl Alcohol	≤ 1%
67-63-0	propan-2-ol	≤ 1%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.

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Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:** Keep respiratory protective device available.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

- **Control parameters**

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

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

Reagent, ACS (Ethanol)

15055

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

**50-00-0 formaldehyde**

EL	Long-term value: 0.3 ppm Ceiling limit value: 1 ppm ACGIH A2; IARC 1; S
EV	Short-term value: 1.0 ppm
Ceiling limit value	1.5 ppm

**64-19-7 Acetic Acid Glacial**

EL	Short-term value: 15 ppm Long-term value: 10 ppm
EV	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

**67-56-1 Methyl Alcohol**

EL	Short-term value: 250 ppm Long-term value: 200 ppm Skin
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EV	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
<b>67-63-0 propan-2-ol</b>	
EL	Short-term value: 400 ppm Long-term value: 200 ppm
EV	Short-term value: 400 ppm Long-term value: 200 ppm

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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: Clear

· **Odor:** Pungent

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· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Ignition temperature:</b>	300 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	73.0 Vol %
· <b>Vapor pressure at 20 °C:</b>	59 hPa
· <b>Density at 20 °C:</b>	1.6 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	42.0 %
<b>Water:</b>	58.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

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## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

<b>50-00-0 formaldehyde</b>		
Oral	LD50	>200 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Carcinogenic.

- **Carcinogenic categories**

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

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	1
---------	---	---

50-00-0	formaldehyde	1
---------	--------------	---

67-63-0	propan-2-ol	3
---------	-------------	---

- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
---------	--------------	---

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

50-00-0	formaldehyde	
---------	--------------	--

## 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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

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## 13 Disposal considerations

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

## 14 Transport information

- |   |   |
|---|---|
| <b>· UN-Number</b>  | UN1170                                    |
| <b>· DOT, TDG, IMDG, IATA</b>   | UN1170                                    |
| <b>· UN proper shipping name</b>  | Ethanol solutions                         |
| <b>· DOT</b>  | 1170 Ethanol solutions                    |
| <b>· TDG</b>  | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| <b>· IMDG</b>   | ETHANOL SOLUTION                          |
| <b>· IATA</b>   | ETHANOL SOLUTION                          |
| <b>· Transport hazard class(es)</b>   |   |
| <b>· DOT</b>  |   |
|  |   |
| <b>· Class</b>  | 3 Flammable liquids                       |
| <b>· Label</b>  | 3   |
| <b>· TDG, IMDG, IATA</b>  |   |
|  |   |
| <b>· Class</b>  | 3 Flammable liquids                       |
| <b>· Label</b>  | 3   |
| <b>· Packing group</b>  | III                                       |
| <b>· DOT, TDG, IMDG, IATA</b>   | III                                       |
| <b>· Environmental hazards:</b>   |   |
| <b>· Marine pollutant:</b>  | No  |
| <b>· Special precautions for user</b>   | Warning: Flammable liquids                |
| <b>· Danger code (Kemler):</b>  | 30  |
| <b>· EMS Number:</b>  | F-E,S-D                                   |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>    | Not applicable.                           |

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

· **TDG**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN1170, Ethanol solutions, 3, III

## 15 Regulatory information

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

· **Sara**

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

50-00-0 formaldehyde

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

50-00-0 formaldehyde

67-56-1 Methyl Alcohol

67-63-0 propan-2-ol

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

50-00-0 formaldehyde

· **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, Absolute, 200 Proof  
Reagent, ACS (Ethanol)  
15055

67-56-1 Methyl Alcohol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

50-00-0 formaldehyde

B1

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· <b>TLV (Threshold Limit Value established by ACGIH)</b>		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	A3
50-00-0	formaldehyde	A2
67-63-0	propan-2-ol	A4
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
50-00-0	formaldehyde	
· <b>Canadian substance listings:</b>		
· <b>Canadian Domestic Substances List (DSL)</b>		
All ingredients are listed.		
· <b>Canadian Ingredient Disclosure list (limit 0.1%)</b>		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	
50-00-0	formaldehyde	
· <b>Canadian Ingredient Disclosure list (limit 1%)</b>		
64-19-7	Acetic Acid Glacial	
67-56-1	Methyl Alcohol	
67-63-0	propan-2-ol	

· **Product related hazard informations:**

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

· **Hazard symbols:**



Toxic

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

formaldehyde

· **Risk phrases:**

May cause cancer.

Also harmful if swallowed.

Irritating to eyes and skin.

May cause sensitisation by skin contact.

Also harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

· **Safety phrases:**

Avoid exposure - obtain special instructions before use.

Avoid contact with skin.

Wear suitable gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

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

## 16 Other information

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

· **Date of preparation / last revision** 11/23/2015 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Muta. 2: Germ cell mutagenicity, Hazard Category 2

Carc. 1A: Carcinogenicity, Hazard Category 1A

CA



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

Printing date 23.11.2015

Revision: 23.11.2015

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

- **1.1 Product identifier**
- **Trade name:** DIETRICH'S FIXATIVE
- **Article number:** 15958-20, 15958-10
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

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



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.  
Carc. 1B H350 May cause cancer.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H335 May cause respiratory irritation.

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



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*formaldehyde*

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## according to 1907/2006/EC, Article 31

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**· Hazard statements**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer.
- H335 May cause respiratory irritation.

**· Precautionary statements**

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· 2.3 Other hazards****· Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients****· 3.2 Chemical characterisation: Mixtures**

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

**· Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055 Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	formaldehyde Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2.5-10%
CAS: 64-19-7 EINECS: 200-580-7	Acetic Acid Glacial Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2.5%
CAS: 67-56-1 EINECS: 200-659-6	Methyl Alcohol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2.5%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**· After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

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

<b>64-17-5 Ethyl Alcohol, Absolute, 200 Proof</b> <b>Reagent, ACS (Ethanol)</b> <b>15055</b>	
WEL	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
<b>50-00-0 formaldehyde</b>	
WEL	Short-term value: 2.5 mg/m <sup>3</sup> , 2 ppm Long-term value: 2.5 mg/m <sup>3</sup> , 2 ppm
<b>67-56-1 Methyl Alcohol</b>	
WEL	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm Long-term value: 266 mg/m <sup>3</sup> , 200 ppm Sk
<b>67-63-0 propan-2-ol</b>	
WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm

· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.

· **Respiratory protection:**

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

· **Protection of hands:**

Protective gloves

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.

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## · Eye protection:



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

## · 9.1 Information on basic physical and chemical properties

## · General Information

## · Appearance:

Form:	Liquid
Colour:	Clear
Odour:	Pungent
Odour threshold:	Not determined.

· pH-value: Not determined.

## · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 300 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

## · Explosion limits:

Lower:	3.5 Vol %
Upper:	73.0 Vol %

· Vapour pressure at 20 °C: 59 hPa

Density at 20 °C:	1.6 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

· Solubility in / Miscibility with water:

Fully miscible.

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

## · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

## · Solvent content:

Organic solvents:	42.0 %
Water:	58.0 %
VOC (EC)	42.00 %

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

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

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

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

**50-00-0 formaldehyde**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant  
Carcinogenic.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Muta. 2, Carc. 1B

### 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 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· 12.6 Other adverse effects No further relevant information available.

**SECTION 13: Disposal considerations**

## · 13.1 Waste treatment methods

## · Recommendation

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

## · Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

## · 14.1 UN-Number

· ADR, IMDG, IATA

UN1170

## · 14.2 UN proper shipping name

· ADR

1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· IMDG

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· IATA

ETHANOL SOLUTION

## · 14.3 Transport hazard class(es)

· ADR, IMDG, IATA



· Class

3 Flammable liquids.

· Label

3

## · 14.4 Packing group

· ADR, IMDG, IATA

III

## · 14.5 Environmental hazards:

· Marine pollutant:

No

## · 14.6 Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

30

· EMS Number:

F-E,S-D

## · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## · Transport/Additional information:

· ADR

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

### 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.
- **National regulations:**
- **Information about limitation of use:**  
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
- **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.  
H226 Flammable liquid and vapour.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H336 May cause drowsiness or dizziness.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H370 Causes damage to organs.
- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent

(Contd. on page 9)



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

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**Trade name: DIETRICH'S FIXATIVE**

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*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Flam. Liq. 3: Flammable liquids, Hazard Category 3*  
*Acute Tox. 3: Acute toxicity, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A*  
*Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Muta. 2: Germ cell mutagenicity, Hazard Category 2*  
*Carc. 1B: Carcinogenicity, Hazard Category 1B*  
*STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

GB

# Veiligheidsinformatieblad

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

- **1.1 Productidentificatie**
- **Handelsnaam:** DIETRICH'S FIXATIVE
- **Artikelnummer:** 15958-20, 15958-10
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

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



GHS08 gezondheidsgevaar

Muta. 2 H341 Verdacht van het veroorzaken van genetische schade.  
Carc. 1B H350 Kan kanker veroorzaken.



GHS07

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.  
Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.  
Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.  
STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

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

(Vervolg op blz. 2)

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(Vervolg van blz. 1)

· **Gevarenpictogrammen**

GHS07 GHS08

· **Signaalwoord** Gevaar· **Gevaaraanduidende componenten voor de etikettering:**

formaldehyde

· **Gevarenaanduidingen**

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H341 Verdacht van het veroorzaken van genetische schade.

H350 Kan kanker veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

· **Veiligheidsaanbevelingen**

P261 Inademing van stof/rook/gas/nevel/damp/spuitnevel vermijden.

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

P305+P351+P338 **BIJ CONTACT MET DE OGEN:** voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.

P321 Specifieke behandeling vereist (zie op dit etiket).

P405 Achter slot bewaren.

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 onveerbarelijke bijmengingen.· **Gevaarlijke inhoudstoffen:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	formaldehyde Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2,5-10%
CAS: 64-19-7 EINECS: 200-580-7	azijnzuur Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2,5%
CAS: 67-56-1 EINECS: 200-659-6	methanol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2,5%
CAS: 67-63-0 EINECS: 200-661-7	2-propanol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2,5%

(Vervolg op blz. 3)

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**· 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****· Algemene informatie:**

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

**· Na het inademen:**

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

**· Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.**· Na oogcontact:**

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

**· Na inslikken:** Onmiddellijk 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:**

CO<sub>2</sub>, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.

**· 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**

Geen verdere relevante informatie verkrijgbaar.

**· 5.3 Advies voor brandweerlieden****· Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

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

**· 6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.**· 6.2 Milieuvoorzorgsmaatregelen:**

Met veel water verdunnen.

Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.

**· 6.3 Insluitings- en reinigingsmethoden en -materiaal:**

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

**· 6.4 Verwijzing naar andere rubrieken**

Informatie inzake veilig gebruik - zie hoofdstuk 7.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

**· 7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**

Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

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- Tanks voorzichtig openen en behandelen.
- Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

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

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

### 64-17-5 ethanol

WGW	Korte termijn waarde: 1900 mg/m <sup>3</sup> , 990 ppm
	Lange termijn waarde: 260 mg/m <sup>3</sup> , 35 ppm

### 50-00-0 formaldehyde

WGW	Korte termijn waarde: 0,5 mg/m <sup>3</sup> , 0,4 ppm
	Lange termijn waarde: 0,15 mg/m <sup>3</sup> , 0,1 ppm

### 64-19-7 azijnzuur

WGW	Lange termijn waarde: 25 mg/m <sup>3</sup> , 10 ppm
-----	---

### 67-56-1 methanol

WGW	Lange termijn waarde: 133 mg/m <sup>3</sup> , 100 ppm
-----	---

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
  - Verwijderd houden van eet- en drinkwaren.
  - Verontreinigde kleding onmiddellijk uittrekken.
  - Vóór de pauze en aan het einde van werktijd handen wassen.
  - Beschermende kleding afzonderlijk bewaren.
  - Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
  - Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

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.

- **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

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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:** Helder

- **Reuk:** Stekend

- **Geurdrempelwaarde:** Niet bepaald.

- **pH-waarde:** Niet bepaald.

- **Toestandsverandering**

**Smeltpunt/smeltbereik:** Niet bepaald.

**Kookpunt/kookpuntbereik:** Niet bepaald.

- **Vlampunt:** Niet bruikbaar.

- **Ontvlambaarheid (vast, gasvormig):** Niet bruikbaar.

- **Ontstekingstemperatuur:** 300 °C

- **Ontbindingstemperatuur:** Niet bepaald.

- **Zelfonsteking:** Het produkt ontbrandt niet uit zichzelf.

- **Ontploffingsgevaar:** Het produkt is niet ontploffingsgevaarlijk.

- **Ontploffingsgrenzen:**

**Onderste:** 3,5 Vol %

**Bovenste:** 73,0 Vol %

- **Dampspanning bij 20 °C:** 59 hPa

- **Dichtheid bij 20 °C:** 1,6 g/cm<sup>3</sup>

- **Relatieve dichtheid:** Niet bepaald.

- **Dampdichtheid:** Niet bepaald.

- **Verdampingssnelheid:** Niet bepaald.

- **Oplosbaarheid in/mengbaarheid met**

**Water:** Volledig mengbaar.

- **Verdelingscoëfficiënt (n-octanol/water):** Niet bepaald.

- **Viscositeit**

**Dynamisch:** Niet bepaald.

**Kinematisch:** Niet bepaald.

- **Oplosmiddelgehalte:**

**Organisch oplosmiddel:** 42,0 %

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<b>Water:</b>	58,0 %
<b>VOC (EG)</b>	42,00 %
<b>· 9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

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

### RUBRIEK 11: Toxicologische informatie

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

· **Indelingsrelevantie LD/LC50-waarden:**

**50-00-0 formaldehyde**

Oraal	LD50	>200 mg/kg (rat)
-------	------	------------------

- **Primaire aandoening:**
- **Huidcorrosie/irritatie** Prikkelde de huid en de slijmvliezen.
- **Ernstig oogletsel/oogirritatie** Prikkeling
- **Sensibilisatie van de luchtwegen/de huid** Kan overgevoeligheid veroorzaken bij contact met de huid.
- **Aanvullende toxicologische informatie:**  
Het produkt vertoont op grond van het berekeningsprocédé van de algemene classificatie-richtlijnen van de EG voor toebereidingen in de laatste geldige redactie de volgende gevaren:  
Schadelijk  
Irriterend  
Kanker verwekkend.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**  
Muta. 2, Carc. 1B

### 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) 3: Kan kanker veroorzaken.  
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water  
Niet lozen in grondwater, in oppervlaktewater of in riolering.  
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.

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- **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.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 VN-nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | <p style="text-align: right;">UN1170</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>                                       | <p style="text-align: right;">1170 ETHANOL, OPLOSSING (ETHYLALCOHOL, OPLOSSING)</p> <p style="text-align: right;">ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)</p> <p style="text-align: right;">ETHANOL SOLUTION</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgevaarklasse(n)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <div style="text-align: center;">  </div> <p style="text-align: right;">3 Brandbare vloeistoffen</p> <p style="text-align: right;">3</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Verpakkingsgroep:</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | <p style="text-align: right;">III</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Milieugevaren:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>   | <p style="text-align: right;">Neen</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b></li> <li>· <b>Kemler-getal:</b></li> <li>· <b>EMS-nummer:</b></li> </ul>  | <p style="text-align: right;">Waarschuwing: Brandbare vloeistoffen</p> <p style="text-align: right;">30</p> <p style="text-align: right;">F-E,S-D</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij MARPOL 73/78 en de IBC-code</b></li> </ul>  | <p style="text-align: right;">Niet bruikbaar.</p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport/verdere gegevens:</b></li> </ul>   |   |
| <ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Beperkte hoeveelheden (LQ)</b></li> <li>· <b>Uitgezonderde hoeveelheden (EQ)</b></li> <li>· <b>Vervoerscategorie</b></li> <li>· <b>Tunnelbeperkingscode</b></li> </ul> | <p style="text-align: right;">5L</p> <p style="text-align: right;">Code: E1</p> <p style="text-align: right;">Grootste netto hoeveelheid per binnenverpakking: 30 ml</p> <p style="text-align: right;">Grootste netto hoeveelheid per buitenverpakking: 1000 ml</p> <p style="text-align: right;">3</p> <p style="text-align: right;">D/E</p> |

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>VN "Model Regulation":</b>	UN1170, ETHANOL, OPLOSSING (ETHYLALCOHOL, OPLOSSING), 3, III

## 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
50-00-0	formaldehyde

· **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	1
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· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

64-17-5	ethanol	1
67-56-1	methanol	2

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

64-17-5	ethanol	x
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· **Richtlijn 2012/18/EU**

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

· **Nationale voorschriften:**

· **Aanwijzingen m.b.t. tewerkstellingsbeperking:**

Werknemers mogen aan de kankerverwekkende gevaarlijke stoffen van deze toebereiding niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 3: Saneringsinspanning A

· **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.

H226 Ontvlambare vloeistof en damp.

H301 Giftig bij inslikken.

H302 Schadelijk bij inslikken.

H311 Giftig bij contact met de huid.

H312 Schadelijk bij contact met de huid.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H315 Veroorzaakt huidirritatie.

(Vervolg op blz. 9)

**Veiligheidsinformatieblad**  
**volgens 1907/2006/EG, Artikel 31**

datum van de druk: 23.11.2015

Herziening van: 23.11.2015

**Handelsnaam: DIETRICH'S FIXATIVE**

(Vervolg van blz. 8)

H317 Kan een allergische huidreactie veroorzaken.  
 H319 Veroorzaakt ernstige oogirritatie.  
 H331 Giftig bij inademing.  
 H332 Schadelijk bij inademing.  
 H336 Kan slaperigheid of duizeligheid veroorzaken.  
 H341 Verdacht van het veroorzaken van genetische schade.  
 H350 Kan kanker veroorzaken.  
 H370 Veroorzaakt schade aan organen.

**Afkortingen en acroniemen:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Flam. Liq. 2: Flammable liquids, Hazard Category 2  
 Flam. Liq. 3: Flammable liquids, Hazard Category 3  
 Acute Tox. 3: Acute toxicity, Hazard Category 3  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 Muta. 2: Germ cell mutagenicity, Hazard Category 2  
 Carc. 1B: Carcinogenicity, Hazard Category 1B  
 STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 23.11.2015

Révision: 23.11.2015

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

- **1.1 Identificateur de produit**
- **Nom du produit:** DIETRICH'S FIXATIVE
- **Code du produit:** 15958-20, 15958-10
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS08 danger pour la santé

Muta. 2 H341 Susceptible d'induire des anomalies génétiques.  
Carc. 1B H350 Peut provoquer le cancer.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.  
Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.  
Skin Sens. 1 H317 Peut provoquer une allergie cutanée.  
STOT SE 3 H335 Peut irriter les voies respiratoires.

- **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**



GHS07



GHS08

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**  
Formaldéhyde
- **Mentions de danger**  
H315 Provoque une irritation cutanée.

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- H319 Provoque une sévère irritation des yeux.  
 H317 Peut provoquer une allergie cutanée.  
 H341 Susceptible d'induire des anomalies génétiques.  
 H350 Peut provoquer le cancer.  
 H335 Peut irriter les voies respiratoires.

**Conseils de prudence**

- P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.  
 P280 Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.  
 P305+P351+P338 **EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.**  
 P321 Traitement spécifique (voir sur cette étiquette).  
 P405 Garder sous clef.  
 P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

**2.3 Autres dangers**
**Résultats des évaluations PBT et vPvB**

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

### SECTION 3: Composition/informations sur les composants

**3.2 Caractérisation chimique: Mélanges**

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

**Composants dangereux:**

CAS: 64-17-5 EINECS: 200-578-6	éthanol Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	Formaldéhyde Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2,5-10%
CAS: 64-19-7 EINECS: 200-580-7	acide acétique Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2,5%
CAS: 67-56-1 EINECS: 200-659-6	méthanol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2,5%
CAS: 67-63-0 EINECS: 200-661-7	propane-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2,5%

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

### SECTION 4: Premiers secours

**4.1 Description des premiers secours**
**Remarques générales:**

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

**Après inhalation:**

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

- **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.

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- **Après contact avec les yeux:**  
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** Consulter immédiatement un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**  
Pas d'autres informations importantes disponibles.

### SECTION 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **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.

### SECTION 6: Mesures à prendre en cas de dispersion accidentelle

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

### SECTION 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Ouvrir et manipuler les récipients avec précaution.  
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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### SECTION 8: Contrôles de l'exposition/protection individuelle

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

Sans autre indication, voir point 7.

· **8.1 Paramètres de contrôle**

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

**64-17-5 éthanol**

VME	Valeur momentanée: 9500 mg/m <sup>3</sup> , 5000 ppm Valeur à long terme: 1900 mg/m <sup>3</sup> , 1000 ppm
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**50-00-0 Formaldéhyde**

VME	Valeur momentanée: 1 ppm Valeur à long terme: 0,5 ppm C2
-----	--

**64-19-7 acide acétique**

VME	Valeur momentanée: 25 mg/m <sup>3</sup> , 10 ppm
-----	--

**67-56-1 méthanol**

VME	Valeur momentanée: 1300 mg/m <sup>3</sup> , 1000 ppm Valeur à long terme: 260 mg/m <sup>3</sup> , 200 ppm risque de pénétration percutanée, (11)
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**67-63-0 propane-2-ol**

VME	Valeur momentanée: 980 mg/m <sup>3</sup> , 400 ppm
-----	--

· **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

· **8.2 Contrôles de l'exposition**

· **Equipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Conserver à part les vêtements de protection.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

· **Protection des mains:**



Gants de protection

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.

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- **Temps de pénétration du matériau des gants**  
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.
- **Protection des yeux:**



Lunettes de protection hermétiques

### SECTION 9: Propriétés physiques et chimiques

#### · 9.1 Informations sur les propriétés physiques et chimiques essentielles

##### · Indications générales

##### · Aspect:

Forme:	Liquide
Couleur:	Transparent
Odeur:	Piquante
Seuil olfactif:	Non déterminé.

· valeur du pH: Non déterminé.

##### · Changement d'état

Point de fusion:	Non déterminé.
Point d'ébullition:	Non déterminé.

· Point d'éclair Non applicable.

· Inflammabilité (solide, gazeux): Non applicable.

· Température d'inflammation: 300 °C

· Température de décomposition: Non déterminé.

· Auto-inflammation: Le produit ne s'enflamme pas spontanément.

· Danger d'explosion: Le produit n'est pas explosif.

##### · Limites d'explosion:

Inférieure:	3,5 Vol %
Supérieure:	73,0 Vol %

· Pression de vapeur à 20 °C: 59 hPa

Densité à 20 °C:	1,6 g/cm <sup>3</sup>
Densité relative	Non déterminé.
Densité de vapeur.	Non déterminé.
Vitesse d'évaporation	Non déterminé.

· Solubilité dans/miscibilité avec l'eau:

Entièrement miscible

· Coefficient de partage (n-octanol/eau): Non déterminé.

##### · Viscosité:

Dynamique:	Non déterminé.
Cinématique:	Non déterminé.

##### · Teneur en solvants:

Solvants organiques:	42,0 %
Eau:	58,0 %

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<b>VOC (CE)</b>	42,00 %
<b>· 9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### SECTION 10: Stabilité et réactivité

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

### SECTION 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**

· **Valeurs LD/LC50 déterminantes pour la classification:**

**50-00-0 Formaldéhyde**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée** Irrite la peau et les muqueuses.
- **Lésions oculaires graves/irritation oculaire** Effet d'irritation.
- **Sensibilisation respiratoire ou cutanée** Sensibilisation possible par contact avec la peau.
- **Indications toxicologiques complémentaires:**  
Selon le procédé de calcul de la dernière version en vigueur de la directive générale CEE sur la classification des préparations, le produit présente les dangers suivants:  
Nocif  
Irritant  
Cancérogène.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**  
Muta. 2, Carc. 1B

### SECTION 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 2 (D) (Classification propre): polluant  
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.  
Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

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· 12.6 Autres effets néfastes Pas d'autres informations importantes disponibles.

### SECTION 13: Considérations relatives à l'élimination

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

### SECTION 14: Informations relatives au transport

- |   |  |
|---|--|
| · 14.1 No ONU<br>· ADR, IMDG, IATA  | UN1170   |
| · 14.2 Nom d'expédition des Nations unies<br>· ADR<br>· IMDG<br>· IATA                              | 1170 ÉTHANOL EN SOLUTION (ALCOOL ÉTHYLIQUE EN SOLUTION)<br>ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)<br>ETHANOL SOLUTION             |
| · 14.3 Classe(s) de danger pour le transport<br>· ADR, IMDG, IATA                                   |  |
|                  |  |
| · Classe<br>· Étiquette   | 3 Liquides inflammables.<br>3  |
| · 14.4 Groupe d'emballage<br>· ADR, IMDG, IATA  | III  |
| · 14.5 Dangers pour l'environnement:<br>· Marine Pollutant:   | Non  |
| · 14.6 Précautions particulières à prendre par l'utilisateur<br>· Indice Kemler:<br>· No EMS:       | Attention: Liquides inflammables.<br>30<br>F-E,S-D   |
| · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol 73/78 et au recueil IBC | Non applicable.  |
| · Indications complémentaires de transport:   |  |
| · ADR<br>· Quantités limitées (LQ)<br>· Quantités exceptées (EQ)                                    | 5L<br>Code: E1<br>Quantité maximale nette par emballage intérieur: 30 ml<br>Quantité maximale nette par emballage extérieur: 1000 ml |
| · Catégorie de transport  | 3  |

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· <b>Code de restriction en tunnels</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>"Règlement type" de l'ONU:</b>	UN1170, ÉTHANOL EN SOLUTION (ALCOOL ÉTHYLIQUE EN SOLUTION), 3, III

### SECTION 15: Informations réglementaires

- **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.
- **Prescriptions nationales:**
- **Indications sur les restrictions de travail:**  
Le personnel ne doit pas être exposé aux substances dangereuses cancérigènes contenues dans cette préparation.  
Les autorités peuvent autoriser des exceptions dans des cas particuliers.
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

### SECTION 16: Autres informations

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

- **Phrases importantes**
- H225 Liquide et vapeurs très inflammables.
- H226 Liquide et vapeurs inflammables.
- H301 Toxique en cas d'ingestion.
- H302 Nocif en cas d'ingestion.
- H311 Toxique par contact cutané.
- H312 Nocif par contact cutané.
- H314 Provoque des brûlures de la peau et des lésions oculaires graves.
- H315 Provoque une irritation cutanée.
- H317 Peut provoquer une allergie cutanée.
- H319 Provoque une sévère irritation des yeux.
- H331 Toxique par inhalation.
- H332 Nocif par inhalation.
- H336 Peut provoquer somnolence ou vertiges.
- H341 Susceptible d'induire des anomalies génétiques.
- H350 Peut provoquer le cancer.
- H370 Risque avéré d'effets graves pour les organes.
- **Acronymes et abréviations:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)

(suite page 9)

**Fiche de données de sécurité**  
**selon 1907/2006/CE, Article 31**

Date d'impression : 23.11.2015

Révision: 23.11.2015

**Nom du produit: DIETRICH'S FIXATIVE**

(suite de la page 8)

*LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Flam. Liq. 2: Flammable liquids, Hazard Category 2**Flam. Liq. 3: Flammable liquids, Hazard Category 3**Acute Tox. 3: Acute toxicity, Hazard Category 3**Acute Tox. 4: Acute toxicity, Hazard Category 4**Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A**Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B**Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Muta. 2: Germ cell mutagenicity, Hazard Category 2**Carc. 1B: Carcinogenicity, Hazard Category 1B**STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

FR

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 23.11.2015

überarbeitet am: 23.11.2015

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

- **1.1 Produktidentifikator**
- **Handelsname:** DIETRICH'S FIXATIVE
- **Artikelnummer:** 15958-20, 15958-10
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
Tel: +49(0)89 18 93 668-0  
[safety@scienceservices.de](mailto:safety@scienceservices.de)  
  
24h Giftnotruf Munchen: +49 (0)89 19240  
Toxikologische Abteilung der II. Medizinischen Klinik  
rechts der Isar, Munchen. - [www.toxinfo.org](http://www.toxinfo.org)
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS08 Gesundheitsgefahr

Muta. 2 H341 Kann vermutlich genetische Defekte verursachen.  
Carc. 1B H350 Kann Krebs erzeugen.



GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.  
Eye Irrit. 2 H319 Verursacht schwere Augenreizung.  
Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.  
STOT SE 3 H335 Kann die Atemwege reizen.

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

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· **Gefahrenpiktogramme**

GHS07 GHS08

· **Signalwort Gefahr**· **Gefahrbestimmende Komponenten zur Etikettierung:**

Formaldehyd

· **Gefahrenhinweise**

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H317 Kann allergische Hautreaktionen verursachen.

H341 Kann vermutlich genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

H335 Kann die Atemwege reizen.

· **Sicherheitshinweise**

P261 Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.

P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.

P305+P351+P338 **BEI KONTAKT MIT DEN AUGEN:** Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).

P405 Unter Verschluss aufbewahren.

P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· **Zusätzliche Angaben:**

Nur für gewerbliche Anwender.

· **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 EINECS: 200-578-6	Ethanol Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	Formaldehyd Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2,5-10%
CAS: 64-19-7 EINECS: 200-580-7	Essigsäure Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2,5%
CAS: 67-56-1 EINECS: 200-659-6	Methanol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2,5%
CAS: 67-63-0 EINECS: 200-661-7	Propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2,5%

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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**

· **Allgemeine Hinweise:**

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

· **Nach Einatmen:**

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.

· **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· **Nach Augenkontakt:**

Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.

· **Nach Verschlucken:** Sofort Arzt aufsuchen.

· **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:**

CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.

· **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**

Keine weiteren relevanten Informationen verfügbar.

· **5.3 Hinweise für die Brandbekämpfung**

· **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.

· **6.2 Umweltschutzmaßnahmen:**

Mit viel Wasser verdünnen.

Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· **6.3 Methoden und Material für Rückhaltung und Reinigung:**

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

Für ausreichende Lüftung sorgen.

· **6.4 Verweis auf andere Abschnitte**

Informationen zur sicheren Handhabung siehe Abschnitt 7.

Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

Informationen zur Entsorgung siehe Abschnitt 13.

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### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Behälter mit Vorsicht öffnen und handhaben.  
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

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

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

**64-17-5 Ethanol**

AGW	Langzeitwert: 960 mg/m <sup>3</sup> , 500 ml/m <sup>3</sup> 2(II);DFG, Y
-----	---

**50-00-0 Formaldehyd**

AGW	Langzeitwert: 0,37 mg/m <sup>3</sup> , 0,3 ml/m <sup>3</sup> 2(I);X, Y, Sh, AGS
-----	--

**64-19-7 Essigsäure**

AGW	Langzeitwert: 25 mg/m <sup>3</sup> , 10 ml/m <sup>3</sup> 2(I);DFG, EU, Y
-----	--

**67-56-1 Methanol**

AGW	Langzeitwert: 270 mg/m <sup>3</sup> , 200 ml/m <sup>3</sup> 4(II);DFG, EU, H, Y
-----	--

**67-63-0 Propan-2-ol**

AGW	Langzeitwert: 500 mg/m <sup>3</sup> , 200 ml/m <sup>3</sup> 2(II);DFG, Y
-----	---

· **Bestandteile mit biologischen Grenzwerten:**

**67-56-1 Methanol**

BGW	30 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende Parameter: Methanol
-----	--

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**67-63-0 Propan-2-ol**

BGW	25 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton
	25 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton

- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
*Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.  
 Beschmutzte, getränkte Kleidung sofort ausziehen.  
 Vor den Pausen und bei Arbeitsende Hände waschen.  
 Getrennte Aufbewahrung der Schutzkleidung.  
 Berührung mit den Augen und der Haut vermeiden.*
- **Atemschutz:**  
*Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.*
- **Handschutz:**



Schutzhandschuhe

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

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### ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

##### · Allgemeine Angaben

##### · Aussehen:

**Form:** Flüssigkeit

**Farbe:** Klar

· **Geruch:** Stechend

· **Geruchsschwelle:** Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.

##### · Zustandsänderung

**Schmelzpunkt/Schmelzbereich:** Nicht bestimmt.

**Siedepunkt/Siedebereich:** Nicht bestimmt.

· **Flammpunkt:** Nicht anwendbar.

· **Entzündlichkeit (fest, gasförmig):** Nicht anwendbar.

· **Zündtemperatur:** 300 °C

· **Zersetzungstemperatur:** Nicht bestimmt.

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

· **Explosionsgefahr:** Das Produkt ist nicht explosionsgefährlich.

##### · Explosionsgrenzen:

**Untere:** 3,5 Vol %

**Obere:** 73,0 Vol %

· **Dampfdruck bei 20 °C:** 59 hPa

· **Dichte bei 20 °C:** 1,6 g/cm<sup>3</sup>

· **Relative Dichte:** Nicht bestimmt.

· **Dampfdichte:** Nicht bestimmt.

· **Verdampfungsgeschwindigkeit:** Nicht bestimmt.

##### · Löslichkeit in / Mischbarkeit mit

**Wasser:** Vollständig mischbar.

· **Verteilungskoeffizient (n-Octanol/Wasser):** Nicht bestimmt.

##### · Viskosität:

**Dynamisch:** Nicht bestimmt.

**Kinematisch:** Nicht bestimmt.

##### · Lösemittelgehalt:

**Organische Lösemittel:** 42,0 %

**Wasser:** 58,0 %

**VOC (EU)** 42,00 %

· **9.2 Sonstige Angaben:** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

#### · 10.1 Reaktivität

#### · 10.2 Chemische Stabilität

#### · Thermische Zersetzung / zu vermeidende Bedingungen:

Keine Zersetzung bei bestimmungsgemäßer Verwendung.

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- **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**

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

50-00-0 Formaldehyd

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Reizt die Haut und die Schleimhäute.
- **Schwere Augenschädigung/-reizung** Reizwirkung.
- **Sensibilisierung der Atemwege/Haut** Durch Hautkontakt Sensibilisierung möglich.
- **Zusätzliche toxikologische Hinweise:**  
Das Produkt weist aufgrund des Berechnungsverfahrens der Allgemeinen Einstufungsrichtlinie der EG für Zubereitungen in der letztgültigen Fassung folgende Gefahren auf:  
Gesundheitsschädlich  
Reizend  
Krebserzeugend.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**  
Muta. 2, Carc. 1B

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 2 (Selbsteinstufung): wassergefährdend  
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.  
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

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

### ABSCHNITT 14: Angaben zum Transport

· **14.1 UN-Nummer**  
· **ADR, IMDG, IATA**

UN1170

· **14.2 Ordnungsgemäße UN-Versandbezeichnung**

· **ADR**  
· **IMDG**  
· **IATA**

1170 ETHANOL, LÖSUNG (ETHYLALKOHOL, LÖSUNG)  
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
ETHANOL SOLUTION

· **14.3 Transportgefahrenklassen**

· **ADR, IMDG, IATA**



· **Klasse**  
· **Gefahrzettel**

3 Entzündbare flüssige Stoffe  
3

· **14.4 Verpackungsgruppe**

· **ADR, IMDG, IATA**

III

· **14.5 Umweltgefahren:**

· **Marine pollutant:**

Nein

· **14.6 Besondere Vorsichtsmaßnahmen für den Verwender**

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

Achtung: Entzündbare flüssige Stoffe  
30  
F-E,S-D

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

Nicht anwendbar.

· **Transport/weitere Angaben:**

· **ADR**

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

5L  
Code: E1  
Höchste Nettomenge je Innenverpackung: 30 ml  
Höchste Nettomenge je Außenverpackung: 1000 ml

· **Beförderungskategorie**

· **Tunnelbeschränkungscode**

3  
D/E

· **IMDG**

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

5L  
Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN1170, ETHANOL, LÖSUNG (ETHYLALKOHOL, LÖSUNG), 3, III

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### 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.
- **Nationale Vorschriften:**
- **Hinweise zur Beschäftigungsbeschränkung:**  
Arbeitnehmer dürfen den in dieser Zubereitung enthaltenen krebserzeugenden Gefahrstoffen nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.
- **Technische Anleitung Luft:**

Klasse	Anteil in %
Wasser	58,0
I	11,0
II	2,0
NK	29,0

- **Wassergefährdungsklasse:** WGK 2 (Selbsteinstufung): wassergefährdend.
- **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

### ABSCHNITT 16: Sonstige Angaben

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

- **Relevante Sätze**  
 H225 Flüssigkeit und Dampf leicht entzündbar.  
 H226 Flüssigkeit und Dampf entzündbar.  
 H301 Giftig bei Verschlucken.  
 H302 Gesundheitsschädlich bei Verschlucken.  
 H311 Giftig bei Hautkontakt.  
 H312 Gesundheitsschädlich bei Hautkontakt.  
 H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.  
 H315 Verursacht Hautreizungen.  
 H317 Kann allergische Hautreaktionen verursachen.  
 H319 Verursacht schwere Augenreizung.  
 H331 Giftig bei Einatmen.  
 H332 Gesundheitsschädlich bei Einatmen.  
 H336 Kann Schläfrigkeit und Benommenheit verursachen.  
 H341 Kann vermutlich genetische Defekte verursachen.  
 H350 Kann Krebs erzeugen.  
 H370 Schädigt die Organe.
- **Abkürzungen und Akronyme:**  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent

(Fortsetzung auf Seite 10)

**Sicherheitsdatenblatt**  
gemäß 1907/2006/EG, Artikel 31

Druckdatum: 23.11.2015

überarbeitet am: 23.11.2015

**Handelsname: DIETRICH'S FIXATIVE**

(Fortsetzung von Seite 9)

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Flam. Liq. 3: Flammable liquids, Hazard Category 3*  
*Acute Tox. 3: Acute toxicity, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A*  
*Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Muta. 2: Germ cell mutagenicity, Hazard Category 2*  
*Carc. 1B: Carcinogenicity, Hazard Category 1B*  
*STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

DE

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

Stampato il: 23.11.2015

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** DIETRICH'S FIXATIVE

· **Articolo numero:** 15958-20, 15958-10

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

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

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

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: [sgkcck@aol.com](mailto:sgkcck@aol.com)

[www.emsdiasum.com](http://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](http://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**



GHS08 pericolo per la salute

Muta. 2 H341 Sospettato di provocare alterazioni genetiche.

Carc. 1B H350 Può provocare il cancro.



GHS07

Skin Irrit. 2 H315 Provoca irritazione cutanea.

Eye Irrit. 2 H319 Provoca grave irritazione oculare.

Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.

STOT SE 3 H335 Può irritare le vie respiratorie.

· **2.2 Elementi dell'etichetta**

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

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

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· **Pittogrammi di pericolo**

GHS07 GHS08

· **Avvertenza Pericolo**· **Componenti pericolosi che ne determinano l'etichettatura:**

formaldeide

· **Indicazioni di pericolo**

H315 Provoca irritazione cutanea.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H341 Sospettato di provocare alterazioni genetiche.

H350 Può provocare il cancro.

H335 Può irritare le vie respiratorie.

· **Consigli di prudenza**

P261 Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.

P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.

P305+P351+P338 **IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.**

P321 Trattamento specifico (vedere su questa etichetta).

P405 Conservare sotto chiave.

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 EINECS: 200-578-6	etanolo Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	formaldeide Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2,5-10%
CAS: 64-19-7 EINECS: 200-580-7	acido acetico Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2,5%
CAS: 67-56-1 EINECS: 200-659-6	metanolo Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2,5%
CAS: 67-63-0 EINECS: 200-661-7	2-propanolo Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2,5%

· **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

IT

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**SEZIONE 4: Misure di primo soccorso**· **4.1 Descrizione delle misure di primo soccorso**· **Indicazioni generali:**

*I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.*

· **Inalazione:**

*Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.*

*Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.*

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.· **Contatto con gli occhi:**

*Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.*

· **Ingestione:** Chiamare subito il medico.· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.· **4.3 Indicazione della eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

*Non sono disponibili altre informazioni.*

**SEZIONE 5: Misure antincendio**· **5.1 Mezzi di estinzione**· **Mezzi di estinzione idonei:**

*CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.*

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**· **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.**SEZIONE 6: Misure in caso di rilascio accidentale**· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.· **6.2 Precauzioni ambientali:**

*Diluire abbondantemente con acqua.*

*Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.*

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

*Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).*

*Smaltimento del materiale contaminato conformemente al punto 13.*

*Provvedere ad una sufficiente areazione.*

· **6.4 Riferimento ad altre sezioni**

*Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.*

*Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.*

*Per informazioni relative allo smaltimento vedere Capitolo 13.*

**SEZIONE 7: Manipolazione e immagazzinamento**· **7.1 Precauzioni per la manipolazione sicura**

*Accurata ventilazione/aspirazione nei luoghi di lavoro.*

*Aprire e manipolare i recipienti con cautela.*

*Evitare la formazione di aerosol.*

· **Indicazioni in caso di incendio ed esplosione:** Tener pronto il respiratore.

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- **7.2 Condizioni per l'immagazzinamento sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali specifici** Non sono disponibili altre informazioni.

**SEZIONE 8: Controllo dell'esposizione/protezione individuale**

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

**8.1 Parametri di controllo**

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

**64-17-5 etanolo**

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

**50-00-0 formaldeide**

TWA Limite Ceiling: 0,37 mg/m<sup>3</sup>, 0,3 ppm  
sen, A2

**64-19-7 acido acetico**

TWA Valore a breve termine: 37 mg/m<sup>3</sup>, 15 ppm  
Valore a lungo termine: 25 mg/m<sup>3</sup>, 10 ppm

**67-56-1 metanolo**

TWA Valore a breve termine: 328 mg/m<sup>3</sup>, 250 ppm  
Valore a lungo termine: 262 mg/m<sup>3</sup>, 200 ppm  
Cute, IBE  
VL Valore a lungo termine: 260 mg/m<sup>3</sup>, 200 ppm  
Pelle

**67-63-0 2-propanolo**

TWA Valore a breve termine: 983 mg/m<sup>3</sup>, 400 ppm  
Valore a lungo termine: 492 mg/m<sup>3</sup>, 200 ppm  
A4

- **Componenti con valori limite biologici:**

**67-56-1 metanolo**

IBE 15 mg/l  
Campioni: urine  
Momento del prelievo: a fine turno  
Indicatore biologico: metanolo

**67-63-0 2-propanolo**

IBE 40 mg/l  
Campioni: urine  
Momento del prelievo: f.t.f.s.l  
Indicatore biologico: acetone

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

**8.2 Controlli dell'esposizione**

**Mezzi protettivi individuali:**

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

Tenere lontano da cibo, bevande e foraggi.

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Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Custodire separatamente l'equipaggiamento protettivo.  
Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

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

· **Guanti protettivi:**



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.

· **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: Chiaro

· **Odore:** Pungente

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

Temperatura di fusione/ambito di fusione: Non definito.

Temperatura di ebollizione/ambito di ebollizione: Non definito.

· **Punto di infiammabilità:** Non applicabile.

· **Infiammabilità (solido, gassoso):** Non applicabile.

· **Temperatura di accensione:** 300 °C

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

· **Autoaccensione:** Prodotto non autoinfiammabile.

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· <b>Pericolo di esplosione:</b>	Prodotto non esplosivo.
· <b>Limiti di infiammabilità:</b>	
<b>Inferiore:</b>	3,5 Vol %
<b>Superiore:</b>	73,0 Vol %
· <b>Tensione di vapore a 20 °C:</b>	59 hPa
· <b>Densità a 20 °C:</b>	1,6 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità del vapore</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di distribuzione (n-Octanol/acqua):</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Solventi organici:</b>	42,0 %
<b>Acqua:</b>	58,0 %
<b>VOC (CE)</b>	42,00 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

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

### SEZIONE 11: Informazioni tossicologiche

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

· <b>Valori LD/LC50 rilevanti per la classificazione:</b>
<b>50-00-0 formaldeide</b>
Orale   LD50   >200 mg/kg (rat)

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Irrita la pelle e le mucose.
- **Lesioni oculari gravi/irritazioni oculari gravi** Irritante.
- **Sensibilizzazione respiratoria o cutanea** Può provocare sensibilizzazione a contatto con la pelle.
- **Ulteriori dati tossicologici:**

Il prodotto, in base al metodo di calcolo della direttiva generale della Comunità sulla classificazione dei preparati nella sua ultima versione valida, presenta i seguenti rischi:

Nocivo

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Irritante

Cancerogeno.

· **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**

Muta. 2, Carc. 1B

**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 2 (D) (Autoclassificazione): pericoloso

Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.

Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.

· **12.5 Risultati della valutazione PBT e vPvB**· **PBT:** Non applicabile.· **vPvB:** Non applicabile.· **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.**SEZIONE 13: Considerazioni sullo smaltimento**· **13.1 Metodi di trattamento dei rifiuti**· **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.· **Imballaggi non puliti:**· **Consigli:** Smaltimento in conformità con le disposizioni amministrative.· **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.**SEZIONE 14: Informazioni sul trasporto**· **14.1 Numero ONU**· **ADR, IMDG, IATA**

UN1170

· **14.2 Nome di spedizione dell'ONU**· **ADR**

1170 ETANOLO IN SOLUZIONE (ALCOL ETILICO IN SOLUZIONE)

· **IMDG**

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **IATA**

ETHANOL SOLUTION

· **14.3 Classi di pericolo connesso al trasporto**· **ADR, IMDG, IATA**· **Classe**

3 Liquidi infiammabili

· **Etichetta**

3

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· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, IMDG, IATA</b>	<b>III</b>
· <b>14.5 Pericoli per l'ambiente:</b> · <b>Marine pollutant:</b>	<b>No</b>
· <b>14.6 Precauzioni speciali per gli utilizzatori</b> · <b>Numero Kemler:</b> · <b>Numero EMS:</b>	<b>Attenzione: Liquidi infiammabili</b> <b>30</b> <b>F-E,S-D</b>
· <b>14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL 73/78 ed il codice IBC</b>	<b>Non applicabile.</b>
· <b>Trasporto/ulteriori indicazioni:</b>	
· <b>ADR</b> · <b>Quantità limitate (LQ)</b> · <b>Quantità esenti (EQ)</b>	<b>5L</b> <b>Codice: E1</b> <b>Quantità massima netta per imballaggio interno: 30 ml</b> <b>Quantità massima netta per imballaggio esterno: 1000 ml</b>
· <b>Categoria di trasporto</b> · <b>Codice di restrizione in galleria</b>	<b>3</b> <b>D/E</b>
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <b>Maximum net quantity per inner packaging: 30 ml</b> <b>Maximum net quantity per outer packaging: 1000 ml</b>
· <b>UN "Model Regulation":</b>	<b>UN1170, ETANOLO IN SOLUZIONE (ALCOL ETILICO IN SOLUZIONE), 3, III</b>

### SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Norme e legislazione 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.
- **Disposizioni nazionali:**
- **Indicazioni relative alla limitazione delle attività lavorative:**  
Il personale non deve essere esposto alle sostanze cancerogene contenute in questo preparato L'autorità può ammettere nei singoli casi delle eccezioni.
- **Istruzione tecnica aria:**

Classe	quota in %
NC	42,0
- **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

### SEZIONE 16: Altre informazioni

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

- **Frasi rilevanti**  
H225 Liquido e vapori facilmente infiammabili.

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H226 Liquido e vapori infiammabili.  
 H301 Tossico se ingerito.  
 H302 Nocivo se ingerito.  
 H311 Tossico per contatto con la pelle.  
 H312 Nocivo per contatto con la pelle.  
 H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.  
 H315 Provoca irritazione cutanea.  
 H317 Può provocare una reazione allergica cutanea.  
 H319 Provoca grave irritazione oculare.  
 H331 Tossico se inalato.  
 H332 Nocivo se inalato.  
 H336 Può provocare sonnolenza o vertigini.  
 H341 Sospettato di provocare alterazioni genetiche.  
 H350 Può provocare il cancro.  
 H370 Provoca danni agli organi.

**· Abbreviazioni e acronimi:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Flam. Liq. 2: Flammable liquids, Hazard Category 2  
 Flam. Liq. 3: Flammable liquids, Hazard Category 3  
 Acute Tox. 3: Acute toxicity, Hazard Category 3  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 Muta. 2: Germ cell mutagenicity, Hazard Category 2  
 Carc. 1B: Carcinogenicity, Hazard Category 1B  
 STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

IT

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.11.23

개정: 2015.11.23

### 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: DIETRICH'S FIXATIVE
- 상품번호: 15958-20, 15958-10
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- Samchang Commercial Co., Ltd.  
 Yeo Eui Do  
 PO Box 1110  
 Seoul, Korea  
 Tel: 82 2 703 3040  
 Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 유해성.위험성

- 순물질 또는 혼합물의 분류



건강에 위험

생식세포 변이원성   구분2   H341 유전적인 결함을 일으킬 것으로 의심됨  
 발암성   구분1B                    H350 암을 일으킬 수 있음



급성 독성(경구)   구분4            H302 삼키면 유해함  
 피부 부식성/자극성   구분2   H315 피부에 자극을 일으킴  
 심한 눈 손상/자극성   구분2   H319 눈에 심한 자극을 일으킴  
 피부과민성   구분1                H317 알레르기성 피부 반응을 일으킬 수 있음

- 라벨표기 요소
- GHS 라벨 요소  
 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- 그림문자



GHS07



GHS08

(2 쪽에 계속)

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**제품명: DIETRICH'S FIXATIVE**

(1 쪽부터계속)

- **신호어 위험**
- **상표상에명확히위험성이표시된성분:**  
formaldehyde
- **유해.위험 문구**  
삼키면 유해함  
피부에 자극을 일으킴  
눈에 심한 자극을 일으킴  
알레르기성 피부 반응을 일으킬 수 있음  
유전적인 결함을 일으킬 것으로 의심됨  
암을 일으킬 수 있음
- **예방조치 문구**  
(분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하십시오.  
(보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.  
눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으십시오.  
(라벨 참조) 처치를 하십시오.  
잠금장치가 있는 저장장소에 저장 하십시오.  
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
- **기타 유해성**
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

- **화학적 특성:** 혼합물
- **설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험요소:**

64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055 ⚠ 인화성 액체 구분2, H225	25-50%
50-00-0	formaldehyde ⚠ 급성 독성(경구) 구분3, H301; ⚠ 급성 독성(경피) 구분3, H311; ⚠ 급성 독성(흡입) 구분3, H331; ⚠ 생식세포 변이원성 구분2, H341; ⚠ 발암성 구분1B, H350; ⚠ 피부 부식성/자극성 구분1, H314; ⚠ 피부과민성 구분1, H317	2.5-10%
64-19-7	Acetic Acid Glacial ⚠ 인화성 액체 구분3, H226; ⚠ 피부 부식성/자극성 구분1, H314	≤ 2.5%
67-56-1	Methyl Alcohol ⚠ 인화성 액체 구분2, H225; ⚠ 표적장기-1회노출 구분1, H370; ⚠ 급성 독성(경구) 구분4, H302; ⚠ 급성 독성(경피) 구분4, H312; ⚠ 급성 독성(흡입) 구분4, H332; 심한 눈 손상/자극성 구분2, H319	≤ 2.5%
67-63-0	propan-2-ol ⚠ 인화성 액체 구분2, H225; ⚠ 심한 눈 손상/자극성 구분2, H319; ⚠ 표적장기-1회노출 구분3, H336	≤ 2.5%

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(3 쪽에계속)



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**제품명: DIETRICH'S FIXATIVE**

(2 쪽부터 계속)

### 4 응급조치 요령

- **응급조치요령 내용**
- **일반적 정보:**  
중독 증상은 몇 시간 이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.
- **흡입했을 때:**  
신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.  
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다.
- **먹었을 때:** 즉시 의사의 도움을 구한다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료 처치 및 특별 치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:**  
이산화탄소, 진화용 석회 가루 또는 물 방사를 사용하고, 더 큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 특별한 조치가 필요없음.

### 6 누출 사고시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 필요없음.
- **환경 관련 예방조치:**  
많은 물로 희석 시킨다.  
하수도망/해수면위의물/지하수로도달하지 않게 한다.
- **밀폐 및 정화 방법과 소재:**  
액체가 혼합된 물질(모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.
- **타 섹션 참조**  
안전 관리에 대한 정보는 제7 장을 참고하십시오.  
개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.  
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

### 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
작업장에서는 통풍이 잘 되고 습기 제거가 잘 되게 주의한다.  
조심스럽게 용기를 개봉하거나 취급한다.  
연무질이 형성되는 것을 피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 호흡 보호 장비를 항상 비치한다.

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**제품명: DIETRICH'S FIXATIVE**

(3 쪽부터계속)

- 혼합위험성 등 안전 저장 조건
- 보관:
- 안전한 저장 방법: 특 별 한 요구사항이 없음.
- 하나의 공동 보관 시설에 대한 보관 관련 정보: 필 요없음
- 보관 조 건 에 관 한 추 가 적 인 정 보: 용기를 새 지 않 게 밀 폐 한 채 보관 한다.
- 구 체 적 최 종 사 용 자 추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.

### 8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이 상 의 자 료 는 없 음. 항 목 7 을 참 고 하 시 오.
- 통제 변수

**· 화학물질의 노출기준, 생물학적 노출기준 등:**

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

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

**50-00-0 formaldehyde**

TLV (ROK)	단기간의값: 1.5 mg/m <sup>3</sup> , 1 ppm 장기간의값: 0.75 mg/m <sup>3</sup> , 0.5 ppm
PEL (USA)	단기간의값: 2 ppm 장기간의값: 0.75 ppm see 29 CFR 1910.1048(c)
REL (USA)	장기간의값: 0.016 ppm 최고노출기준: 0.1* ppm *15-min; See Pocket Guide App. A
TLV (USA)	최고노출기준: 0.37 mg/m <sup>3</sup> , 0.3 ppm (SEN) NIC-DSEN; RSEN

**64-19-7 Acetic Acid Glacial**

TLV (ROK)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
IOELV (EU)	장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
PEL (USA)	장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
REL (USA)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
TLV (USA)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm

**67-56-1 Methyl Alcohol**

TLV (ROK)	단기간의값: 310 mg/m <sup>3</sup> , 250 ppm 장기간의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
IOELV (EU)	장기간의값: 260 mg/m <sup>3</sup> , 200 ppm Skin

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PEL (USA)	장기간의값: 260 mg/m <sup>3</sup> , 200 ppm
REL (USA)	단기간의값: 325 mg/m <sup>3</sup> , 250 ppm 장기간의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV (USA)	단기간의값: 328 mg/m <sup>3</sup> , 250 ppm 장기간의값: 262 mg/m <sup>3</sup> , 200 ppm Skin; BEI

**67-63-0 propan-2-ol**

TLV (ROK)	단기간의값: 980 mg/m <sup>3</sup> , 400 ppm 장기간의값: 480 mg/m <sup>3</sup> , 200 ppm
PEL (USA)	장기간의값: 980 mg/m <sup>3</sup> , 400 ppm
REL (USA)	단기간의값: 1225 mg/m <sup>3</sup> , 500 ppm 장기간의값: 980 mg/m <sup>3</sup> , 400 ppm
TLV (USA)	단기간의값: 984 mg/m <sup>3</sup> , 400 ppm 장기간의값: 492 mg/m <sup>3</sup> , 200 ppm BEI

· **추가 정보:** 제조할 당시에 유효한 목록을 기초로 사용했다.

· **노출 통제**

· **개인 보호구**

· **일반적보호조치및위생조치:**

· 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.

· 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.

· 휴식 전이나 작업이 끝날때마다 손을 씻는다.

· 방호복은 따로 보관한다.

· 눈과 피부와의 접촉은 피한다.

· **호흡기 보호:**

· 단시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

· **손 보호:**



보호용 장갑

· 장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.

· 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.

· 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑의 재료**

· 적합한 장갑의 선정은 재질 차이뿐만 아니라 품질 기준 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제가 이루어지는 것이기 때문에, 장갑재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크되어야 한다.

· **장갑 재료의 투과 시간** 정확한 관통 시간은 보호장갑 제조자에 의하여 인지되고, 준수되어야 한다.

· **눈 보호:**



확조이는 보안경

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### 9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보	
· 일반정보	
· 외형	
· 물리적 상태:	액체
· 색:	밝은
· 냄새:	찌르는 듯한
· 후각역치	알맞지않다.
· pH:	알맞지않다.
· 상태변화	
· 녹는점/어는점:	맞지않는
· 초기 끓는점과 끓는점 범위:	맞지않는
· 인화점:	해당사항 없음.
· 인화성(고체, 기체):	해당사항 없음.
· 점화온도:	300 °C
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다
· 인화 또는 폭발 범위의 상한/하한	
· 아래로:	3.5 Vol %
· 위로:	73.0 Vol %
· 증기압 의경우 20 °C:	59 hPa
· 밀도 의경우 20 °C:	1.6 g/cm <sup>3</sup>
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도:	
· 물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도:	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매내용물	
· 유기용매:	42.0 %
· 물:	58.0 %
· VOC (EU)	42.00 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- 반응성
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.

(7 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.11.23

개정: 2015.11.23

**제품명: DIETRICH'S FIXATIVE**

(6 쪽부터계속)

- **피해야 할 조건** 추가적인 정보가 존재하지 않습니다.
- **혼합 금지 물질:** 추가적인 정보가 존재하지 않습니다.
- **유해분해물질:** 위험성있는분해물들은알려지지않았다.

### 11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- **급성 독성:**

- **LD/LC50-수치에 따른 분류:**

50-00-0 formaldehyde

구강의	LD50	>200 mg/kg (rat)
-----	------	------------------

- **일차적 자극 효과:**
- **피부 부식성 또는 자극성:** 피부와점막을자극한다.
- **심한 눈 손상 또는 자극성:** 자극
- **감각화:** 피부접촉을통하여감각화가능성이있다.
- **추가적인 독성에 관한 정보:**  
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.  
건강에해로운  
자극적인  
압을유발하는
- **다음 종류의 잠재적인 효과에 대한 정보**
- **CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)**  
생식세포 변이원성 구분2, 발암성 구분1B

### 12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보:**
- **일반 특징:**  
수질오염등급 2 (자체등급분류): 수질오염이된  
지하수나, 하천으로또는하수도망에도달하지않게한다.  
지하수로경미한양이유입되었을경우엔이미식수오염상태이다
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

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

(8 쪽에계속)

-KR

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.11.23


개정: 2015.11.23

**제품명: DIETRICH'S FIXATIVE**

· **추천 세정제:** 경우에따라서세제가첨가된물

(7 쪽부터계속)

### 14 운송에 필요한 정보

· 유엔 번호 · ADR, IMDG, IATA	UN1170
· UN 적정 선적명 · ADR · IMDG · IATA	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) ETHANOL SOLUTION
· 교통 위험 클래스 · ADR, IMDG, IATA  	3 발화성용액 3
· 등급 · 위험물 라벨	3 발화성용액 3
· 용기등급 · ADR, IMDG, IATA	III
· 환경적 유해물질: · 해양오염물질:	아니오
· 이용자 특별 예방조치 · 위험 코드: · EMS-번호:	경고: 발화성용액 30 F-E,S-D
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· <b>운 송/추가 정보:</b>	
· ADR · 한정 수량 (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· 운송 구분 · 터널 제한 코드	3 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

(9 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.11.23

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**제품명: DIETRICH'S FIXATIVE**

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· UN "모범 규제": UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

### 15 법적 규제현황

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory		
64-17-5	Ethyl Alcohol, Absolute, 200 Proof Reagent, ACS (Ethanol) 15055	KE-13217
50-00-0	formaldehyde	KE-17074
64-19-7	Acetic Acid Glacial	KE-00013
67-56-1	Methyl Alcohol	KE-23193
67-63-0	propan-2-ol	KE-29363
7732-18-5	water, distilled, conductivity or of similar purity	KE-35400

· GHS 라벨 요소

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

· 위험 도표



GHS07 GHS08

· 표지어 위험

· 상표상에명확히위험성이표시된성분:

formaldehyde

· 위험 문구

- 삼키면 유해함
- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 유전적인 결함을 일으킬 것으로 의심됨
- 암을 일으킬 수 있음

· 주의 문구

- (분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하십시오.
- (보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으십시오.
- (라벨 참조) 처치를 하십시오.
- 잠금장치가 있는 저장장소에 저장하십시오.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 국내규정:

· 사용제한에 대한 정보:

노동자들은이러한예방준비하에암을유발시키는성분을함유한위험물을버리지말아야한다. 개별적인경우에관청은예외를허가할수있다.

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

KR

(10 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.11.23

개정: 2015.11.23

**제품명: DIETRICH'S FIXATIVE**

(9 쪽부터계속)

### 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은  
기술하지않았으며계약적인법률관계에기반을두고있지도않다

- **최초 작성일자:** 2015.11.23
- **개정 횟수 및 최종 개정일자:** 1 / 2015.11.23
- **약어와 두문자어:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

인화성 액체 구분2: Flammable liquids, Hazard Category 2

인화성 액체 구분3: Flammable liquids, Hazard Category 3

급성 독성(경구) 구분3: Acute toxicity, Hazard Category 3

급성 독성(경구) 구분4: Acute toxicity, Hazard Category 4

피부 부식성/자극성 구분1: Skin corrosion/irritation, Hazard Category 1

피부 부식성/자극성 구분2: Skin corrosion/irritation, Hazard Category 2

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

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

피부과민성 구분1: Sensitisation - Skin, Hazard Category 1

생식세포 변이원성 구분2: Germ cell mutagenicity, Hazard Category 2

발암성 구분1B: Carcinogenicity, Hazard Category 1B

표적장기-1회노출 구분1: Specific target organ toxicity - Single exposure, Hazard Category 1

표적장기-1회노출 구분3: Specific target organ toxicity - Single exposure, Hazard Category 3



# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 23.11.2015

Revisión: 23.11.2015

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** DIETRICH'S FIXATIVE

· **Número del artículo:** 15958-20, 15958-10

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

No existen más datos relevantes disponibles.

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

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

##### · **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkcck@aol.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

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

#### · 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

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

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



GHS08 peligro para la salud

Muta. 2 H341 Se sospecha que provoca defectos genéticos.

Carc. 1B H350 Puede provocar cáncer.



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.

Eye Irrit. 2 H319 Provoca irritación ocular grave.

Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

STOT SE 3 H335 Puede irritar las vías respiratorias.

#### · 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.

( se continua en página 2 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 23.11.2015

Revisión: 23.11.2015

Nombre comercial: DIETRICH'S FIXATIVE

( se continua en página 1 )

## · Pictogramas de peligro



GHS07 GHS08

## · Palabra de advertencia Peligro

## · Componentes peligrosos a indicar en el etiquetaje:

formaldehído

## · Indicaciones de peligro

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H341 Se sospecha que provoca defectos genéticos.

H350 Puede provocar cáncer.

H335 Puede irritar las vías respiratorias.

## · Consejos de prudencia

P261 Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.

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

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

P405 Guardar bajo llave.

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 EINECS: 200-578-6	etanol Flam. Liq. 2, H225	25-50%
CAS: 50-00-0 EINECS: 200-001-8	formaldehído Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	2,5-10%
CAS: 64-19-7 EINECS: 200-580-7	ácido acético Flam. Liq. 3, H226; Skin Corr. 1A, H314	≤ 2,5%
CAS: 67-56-1 EINECS: 200-659-6	metanol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2,5%
CAS: 67-63-0 EINECS: 200-661-7	2-propanol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2,5%

· Indicaciones adicionales: El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

( se continua en página 3 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 23.11.2015

Revisión: 23.11.2015

Nombre comercial: DIETRICH'S FIXATIVE

( se continua en página 2 )

### SECCIÓN 4: Primeros auxilios

#### · 4.1 Descripción de los primeros auxilios

##### · Instrucciones generales:

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

##### · En caso de inhalación del producto:

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

##### · En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

##### · En caso de con los ojos:

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

##### · En caso de ingestión: Consultar inmediatamente un médico.

#### · 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:

CO<sub>2</sub>, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.

#### · 5.2 Peligros específicos derivados de la sustancia o la mezcla No existen más datos relevantes disponibles.

#### · 5.3 Recomendaciones para el personal de lucha contra incendios

##### · Equipo especial de protección: No se requieren medidas especiales.

### SECCIÓN 6: Medidas en caso de vertido accidental

#### · 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia No es necesario.

#### · 6.2 Precauciones relativas al medio ambiente:

Diluir con mucha agua.

Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

#### · 6.3 Métodos y material de contención y de limpieza:

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Desechar el material contaminado como vertido según ítem 13.

Asegurar suficiente ventilación.

#### · 6.4 Referencia a otras secciones

Ver capítulo 7 para mayor información sobre una manipulación segura.

Ver capítulo 8 para mayor información sobre el equipo personal de protección.

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

#### · 7.1 Precauciones para una manipulación segura

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Abrir y manejar el recipiente con cuidado.

Evitar la formación de aerosoles.

#### · Prevención de incendios y explosiones: Tener preparados los aparatos respiratorios.

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- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

### SECCIÓN 8: Controles de exposición/protección individual

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

#### · 8.1 Parámetros de control

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

##### **64-17-5 etanol**

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

##### **50-00-0 formaldehído**

LEP	Valor de corta duración: 0,37 mg/m <sup>3</sup> , 0,3 ppm
Sen, s	

##### **64-19-7 ácido acético**

LEP	Valor de corta duración: 37 mg/m <sup>3</sup> , 15 ppm
	Valor de larga duración: 25 mg/m <sup>3</sup> , 10 ppm
	VLI

##### **67-56-1 metanol**

LEP	Valor de larga duración: 266 mg/m <sup>3</sup> , 200 ppm
	vía dérmica, VLB, VLI

##### **67-63-0 2-propanol**

LEP	Valor de corta duración: 1000 mg/m <sup>3</sup> , 400 ppm
	Valor de larga duración: 500 mg/m <sup>3</sup> , 200 ppm
	VLB, s

- **Componentes con valores límite biológicos:**

##### **67-56-1 metanol**

VLB	15 mg/l
	Muestra: orina
	Momento de Muestero: Final de la jornada laboral
	Indicador Biológico: Metanol

##### **67-63-0 2-propanol**

VLB	40 mg/l
	Muestra: orina
	Momento de Muestero: Final de la semana laboral
	Indicador Biológico: Acetona

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

#### · 8.2 Controles de la exposición

##### · **Equipo de protección individual:**

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

Mantener alejado de alimentos, bebidas y alimentos para animales.

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Quitarse de inmediato la ropa ensuciada o impregnada.  
Llavarse las manos antes de las pausas y al final del trabajo.  
Guardar la ropa protectora por separado.  
Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

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

· **Protección de manos:**



Guantes de protección

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.

· **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: Claro

· **Olor:** Penetrante

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

Punto de fusión /campo de fusión: Indeterminado.

Punto de ebullición /campo de ebullición: Indeterminado.

· **Punto de inflamación:** No aplicable.

· **Inflamabilidad (sólido, gaseiforme):** No aplicable.

· **Temperatura de ignición:** 300 °C

· **Temperatura de descomposición:** No determinado.

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· <b>Autoinflamabilidad:</b>	El producto no es autoinflamable.
· <b>Peligro de explosión:</b>	El producto no es explosivo.
· <b>Límites de explosión:</b>	
<b>Inferior:</b>	3,5 Vol %
<b>Superior:</b>	73,0 Vol %
· <b>Presión de vapor a 20 °C:</b>	59 hPa
· <b>Densidad a 20 °C:</b>	1,6 g/cm <sup>3</sup>
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Velocidad de evaporación</b>	No determinado.
· <b>Solubilidad en / miscibilidad con agua:</b>	Completamente mezclable.
· <b>Coefficiente de reparto (n-octanol/agua):</b>	No determinado.
· <b>Viscosidad:</b>	
<b>Dinámica:</b>	No determinado.
<b>Cinemática:</b>	No determinado.
· <b>Concentración del disolvente:</b>	
<b>Disolventes orgánicos:</b>	42,0 %
<b>Agua:</b>	58,0 %
<b>VOC (CE)</b>	42,00 %
· <b>9.2 Información adicional</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

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

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

**50-00-0 formaldehído**

Oral | LD50 | >200 mg/kg (rat)

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** Irrita la piel y las mucosas.
- **Lesiones o irritación ocular graves** Produce irritaciones.
- **Sensibilización respiratoria o cutánea** Posible sensibilización al entrar en contacto con la piel.
- **Indicaciones toxicológicas adicionales:**  
En conformidad con el procedimiento de cálculo contenido en la última versión de la Normativa General de Clasificación de la CE para Preparados, el producto tiene los siguientes riesgos:

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Nocivo  
 Irritante  
 Cancerígeno.  
 · **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**  
 Muta. 2, Carc. 1B

### 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 2 (autoclasiicación): peligroso para el agua  
 No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.  
 Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

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

### SECCIÓN 14: Información relativa al transporte

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



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· <b>Etiqueta</b>	3
· <b>14.4 Grupo de embalaje</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Peligros para el medio ambiente:</b> · <b>Contaminante marino:</b>	No
· <b>14.6 Precauciones particulares para los usuarios</b> · <b>Número Kemler:</b> · <b>Número EMS:</b>	Atención: Líquidos inflamables 30 F-E,S-D
· <b>14.7 Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC</b>	No aplicable.
· <b>Transporte/datos adicionales:</b>	
· <b>ADR</b> · <b>Cantidades limitadas (LQ)</b> · <b>Cantidades exceptuadas (EQ)</b>	5L Código: E1 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 1000 ml
· <b>Categoría de transporte</b> · <b>Código de restricción del túnel</b>	3 D/E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>"Reglamentación Modelo" de la UNECE:</b>	UN1170, ETANOL EN SOLUCIÓN (ALCOHOL ETÍLICO EN SOLUCIÓN), 3, III

### 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
- **Disposiciones nacionales:**
- **Indicaciones sobre las limitaciones de trabajo:**  
Los empleados no deben exponerse a las sustancias cancerígenas contenidas en el producto. En casos aislados las autoridades pueden hacer excepciones.
- **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.

- **Frases relevantes**  
H225 Líquido y vapores muy inflamables.  
H226 Líquidos y vapores inflamables.  
H301 Tóxico en caso de ingestión.

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H302 Nocivo en caso de ingestión.  
H311 Tóxico en contacto con la piel.  
H312 Nocivo en contacto con la piel.  
H314 Provoca quemaduras graves en la piel y lesiones oculares graves.  
H315 Provoca irritación cutánea.  
H317 Puede provocar una reacción alérgica en la piel.  
H319 Provoca irritación ocular grave.  
H331 Tóxico en caso de inhalación.  
H332 Nocivo en caso de inhalación.  
H336 Puede provocar somnolencia o vértigo.  
H341 Se sospecha que provoca defectos genéticos.  
H350 Puede provocar cáncer.  
H370 Provoca daños en los órganos.

**· Abreviaturas y acrónimos:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Flam. Liq. 2: Flammable liquids, Hazard Category 2  
Flam. Liq. 3: Flammable liquids, Hazard Category 3  
Acute Tox. 3: Acute toxicity, Hazard Category 3  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Muta. 2: Germ cell mutagenicity, Hazard Category 2  
Carc. 1B: Carcinogenicity, Hazard Category 1B  
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

ES