

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/07/2022

Reviewed on 01/07/2022

## 1 Identification

- **Product identifier**
- **Trade name:** CYTOPREP FIXATIVE
- **Article number:** 64145-01, 64145-12
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

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



- **Signal word** Warning
- **Hazard-determining components of labeling:**  
propan-2-ol
- **Hazard statements**  
Causes serious eye irritation.  
May cause drowsiness or dizziness.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear eye protection / face protection.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Call a poison center/doctor if you feel unwell.  
If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.

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Store locked up.

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

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 4

Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 4

Reactivity = 1

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

### 3 Composition/information on ingredients

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

74-98-6	propane	>25-≤50%
75-28-5	isobutane	>25-≤50%
67-63-0	propan-2-ol	>10-≤25%

### 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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

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

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

· **After swallowing:** If symptoms persist consult doctor.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**· **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

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- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

### · PAC-1:

74-98-6	propane	5500* ppm
75-28-5	isobutane	5500* ppm
67-63-0	propan-2-ol	400 ppm

### · PAC-2:

74-98-6	propane	17000** ppm
75-28-5	isobutane	17000** ppm
67-63-0	propan-2-ol	2000* ppm

### · PAC-3:

74-98-6	propane	33000*** ppm
75-28-5	isobutane	53000*** ppm
67-63-0	propan-2-ol	12000** ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Protect from heat.  
Protect against electrostatic charges.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.

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· **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:**

### 74-98-6 propane

PEL Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppm

REL Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppm

TLV see Appendix F Minimal oxygen content ( D, EX)

### 75-28-5 isobutane

TLV Short-term value: 1000 ppm  
(EX)

### 67-63-0 propan-2-ol

PEL Long-term value: 980 mg/m<sup>3</sup>, 400 ppm

REL Short-term value: 1225 mg/m<sup>3</sup>, 500 ppm  
Long-term value: 980 mg/m<sup>3</sup>, 400 ppm

TLV Short-term value: 400 ppm  
Long-term value: 200 ppm  
BEI, A4

· **Ingredients with biological limit values:**

### 67-63-0 propan-2-ol

BEI 40 mg/L  
Medium: urine  
Time: end of shift at end of workweek  
Parameter: Acetone (background, nonspecific)

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

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

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

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

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Not applicable, as aerosol.

- **Flash point:** -87 °C (-124.6 °F)

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

- **Ignition temperature:** 425 °C (797 °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>	1.7 Vol %
<b>Upper:</b>	12 Vol %

- **Vapor pressure at 20 °C (68 °F):** 8,300 hPa (6.200 mm Hg)

- **Density at 20 °C (68 °F):** 0.36043 g/cm<sup>3</sup> (3.00779 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **Water:** Not miscible or difficult to mix.

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

- **Viscosity:**

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

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· <b>Solvent content:</b>	
<b>Organic solvents:</b>	60.0 %
<b>VOC content:</b>	100.00 %
	360.4 g/l / 3.01 lb/gal
· <b>Solids content:</b>	
	0.0 %
· <b>Other information</b>	
	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
- **Carcinogenic categories**

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

67-63-0 | propan-2-ol

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

## 12 Ecological information

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

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- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

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

## 14 Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">UNI950</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, IATA</b></li> </ul> | <p style="margin-left: 20px;">Aerosols<br/>1950 AEROSOLS<br/>AEROSOLS</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; margin-bottom: 10px;">  </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">2.1 Gases<br/>3</p>   |
| <ul style="list-style-type: none"> <li>· <b>ADR</b></li> </ul>  | <div style="text-align: center; margin-bottom: 10px;">  </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">2.1 F1 Gases<br/>3</p>  |
| <ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>   | <div style="text-align: center; margin-bottom: 10px;">  </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>  | <p style="margin-left: 20px;">2.1 Gases</p>   |

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· <b>Label</b>	3
· <b>Packing group</b> · <b>DOT, ADR, IMDG, IATA</b>	I
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> 33 · <b>EMS Number:</b> · <b>Stowage Code</b>	Not applicable. F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· <b>Segregation Code</b>	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <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: 1 L On cargo aircraft only: 30 L
· <b>ADR</b> · <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· <b>UN "Model Regulation":</b>	UN 1950 AEROSOLS, 3, I

## 15 Regulatory information

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

· **Sara**

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

None of the ingredients is listed.

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

67-63-0 | propan-2-ol

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

All components have the value ACTIVE.

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· <b>Hazardous Air Pollutants</b>
None of the ingredients is listed.
· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.
· <b>Carcinogenic categories</b>
· <b>EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
· <b>TLV (Threshold Limit Value)</b>
67-63-0   propan-2-ol
A4
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.
· <b>GHS label elements</b> The product is classified and labeled according to the Globally Harmonized System (GHS).
· <b>Hazard pictograms</b>

GHS07
· <b>Signal word</b> Warning
· <b>Hazard-determining components of labeling:</b>
propan-2-ol
· <b>Hazard statements</b>
Causes serious eye irritation.
May cause drowsiness or dizziness.
· <b>Precautionary statements</b>
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye protection / face protection.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· <b>Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.



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## 16 Other information

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

· **Contact:**

· **Date of preparation / last revision** 01/07/2022 / -

· **Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety **Health***

***TLV: Threshold Limit Value***

***PEL: Permissible Exposure Limit***

***REL: Recommended Exposure Limit***

***BEI: Biological Exposure Limit***

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

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

US

# Safety Data Sheet

## according to WHS Regulations

Printing date 07.01.2022

Revision: 07.01.2022

### 1 Identification

- **Product identifier**
- **Trade name:** CYTOPREP FIXATIVE
- **Article number:** 64145-01, 64145-12
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://ems.proscitech.com)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: [www.emgrid.com.au](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

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



GHS07

- **Signal word** Warning

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

*propan-2-ol*

- **Hazard statements**

*Causes serious eye irritation.*

*May cause drowsiness or dizziness.*

- **Precautionary statements**

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

*Wash thoroughly after handling.*

*Use only outdoors or in a well-ventilated area.*

*Wear eye protection / face protection.*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

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

*Continue rinsing.*

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

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

*Store in a well-ventilated place. Keep container tightly closed.*

*Store locked up.*

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

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**

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

- **Dangerous components:**

74-98-6	propane	>25-≤50%
75-28-5	isobutane	>25-≤50%
67-63-0	propan-2-ol	>10-≤25%

- **Additional information:** For the wording of the listed hazard 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.*

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

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

- **After eye contact:**

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

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

- **Information for doctor:**

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

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- **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>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Protect against electrostatic charges.  
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray onto a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

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

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# Safety Data Sheet

## according to WHS Regulations

Printing date 07.01.2022

Revision: 07.01.2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 3)

- **Control parameters**

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

<b>74-98-6 propane</b>	
WES	Asphyxiant
<b>67-63-0 propan-2-ol</b>	
WES	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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

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

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

## 9 Physical and Chemical Properties

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

- **General Information**

- **Appearance:**

**Form:** Liquid

**Colour:** Colourless

- **Odour:** Odourless

- **Odour threshold:** Not determined.

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

(Contd. on page 5)

-AU-

## Safety Data Sheet according to WHS Regulations

Printing date 07.01.2022

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Trade name: **CYTOPREP FIXATIVE**

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· <b>Change in condition</b> <b>Melting point/freezing point:</b> <b>Initial boiling point and boiling range:</b>	Undetermined. Not applicable, as aerosol.
· <b>Flash point:</b>	-87 °C
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Ignition temperature:</b>	425 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b> <b>Lower:</b> <b>Upper:</b>	1.7 Vol % 12 Vol %
· <b>Vapour pressure at 20 °C:</b>	8,300 hPa
· <b>Density at 20 °C:</b> · <b>Relative density</b> · <b>Vapour density</b> · <b>Evaporation rate</b>	0.36043 g/cm <sup>3</sup> Not determined. Not determined. Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic:</b> <b>Kinematic:</b>	Not determined. Not determined.
· <b>Solvent content:</b> <b>Organic solvents:</b> <b>VOC (EC)</b>	60.0 % 100.00 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

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

AU

(Contd. on page 6)

# Safety Data Sheet

## according to WHS Regulations

Printing date 07.01.2022

Revision: 07.01.2022

Trade name: **CYTOPREP FIXATIVE**

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### 11 Toxicological Information

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

### 12 Ecological Information

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

### 13 Disposal considerations

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

### 14 Transport information

- |                                  |               |
|----------------------------------|---------------|
| · <b>UN-Number</b>               |               |
| · <b>ADG, IMDG, IATA</b>         | UN1950        |
| · <b>UN proper shipping name</b> |               |
| · <b>ADG</b>                     | 1950 AEROSOLS |
| · <b>IMDG, IATA</b>              | AEROSOLS      |

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AU



# Safety Data Sheet

according to WHS Regulations

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Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 6)

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

· **Class** 2.1 Fl Gases.  
 · **Label** 3

· **IMDG, IATA**

· **Class** 2.1 Gases.  
 · **Label** 3

· **Packing group**  
 · **ADG, IMDG, IATA** I

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.  
 · **Hazard identification number (Kemler code):** 33  
 · **EMS Number:** F-D,S-U  
 · **Stowage Code** SW1 Protected from sources of heat.  
 SW22 For AEROSOLS with a maximum capacity of 1 litre:  
 Category A. For AEROSOLS with a capacity above 1 litre:  
 Category B. For WASTE AEROSOLS: Category C, Clear of  
 living quarters.  
 · **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre:  
 Segregation as for class 9. Stow "separated from" class 1  
 except for division 1.4.  
 For AEROSOLS with a capacity above 1 litre:  
 Segregation as for the appropriate subdivision of class 2.  
 For WASTE AEROSOLS:  
 Segregation as for the appropriate subdivision of class 2.

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

· **Transport/Additional information:**

· **ADG**  
 · **Limited quantities (LQ)** 1L  
 · **Excepted quantities (EQ)** Code: E0  
 Not permitted as Excepted Quantity  
 · **Transport category** 1  
 · **Tunnel restriction code** D/E

· **IMDG**

· **Limited quantities (LQ)** 0  
 · **Excepted quantities (EQ)** Code: E3  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 300 ml

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# Safety Data Sheet

## according to WHS Regulations

Printing date 07.01.2022

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Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 7)

· UN "Model Regulation":	UN 1950 AEROSOLS, 3, I
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### 15 Regulatory information

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

- **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

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

None of the ingredients is listed.

- **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

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

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

propan-2-ol

- **Hazard statements**

Causes serious eye irritation.

May cause drowsiness or dizziness.

- **Precautionary statements**

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear eye protection / face protection.

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Continue rinsing.

Call a POISON CENTER/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

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.

- **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.

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**Safety Data Sheet**  
**according to WHS Regulations**

Printing date 07.01.2022

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**Trade name: CYTOPREP FIXATIVE**

(Contd. of page 8)

**· Contact:****· Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

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

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

### 1 Identification

- **Product identifier**
- **Trade name:** CYTOPREP FIXATIVE
- **Article number:** 64145-01, 64145-12
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: info@emsdiasum.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 Hazard identification

- **Classification of the substance or mixture**



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -  
Category 3

H336 May cause drowsiness or dizziness.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
propan-2-ol
- **Hazard statements**  
 Causes serious eye irritation.  
 May cause drowsiness or dizziness.
- **Precautionary statements**  
 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Call a poison center/doctor if you feel unwell.  
 If eye irritation persists: Get medical advice/attention.

(Contd. on page 2)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 1)

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 4

Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 4

Reactivity = 1

### 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

74-98-6	propane	15-40% w/w *
75-28-5	isobutane	15-40% w/w *
67-63-0	propan-2-ol	10-30% w/w *

\* Actual concentration ranges are withheld as a trade secret.

### 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

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

· **After eye contact:**

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

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

· **Information for doctor:**

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

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

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:** Water

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

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Protect from heat.  
Protect against electrostatic charges.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

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

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

#### 74-98-6 propane

EL Simple asphyxiant; EX

EV TWA: 1,000 ppm  
revoked as of 01/01/18

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 3)

**75-28-5 isobutane**

EL STEL: 1000 ppm  
EX

EV TWA: 800 ppm  
revoked as of 01/01/18

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

EL STEL: 400 ppm  
TWA: 200 ppm

EV STEL: 400 ppm  
TWA: 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.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

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

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

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CA

## Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 4)

· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Not applicable, as aerosol.
· <b>Flash point:</b>	-87 °C
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Ignition temperature:</b>	425 °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>	1.7 Vol %
<b>Upper:</b>	12 Vol %
· <b>Vapor pressure at 20 °C:</b>	8,300 hPa
· <b>Density at 20 °C:</b>	0.36043 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <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>	60.0 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

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

CA

(Contd. on page 6)



# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 5)

### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

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

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

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

Harmful

Irritant

- **Carcinogenic categories**

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

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

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**

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

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

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

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**

- **DOT/TDG, ADR, IMDG, IATA**

UN1950

(Contd. on page 7)

CA

# Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 6)

· **UN proper shipping name**  
 · **DOT/TDG** Aerosols  
 · **ADR** 1950 AEROSOLS  
 · **IMDG, IATA** AEROSOLS

· **Transport hazard class(es)**  
 · **DOT/TDG (Transport dangerous goods):**



· **Class** 2.1 Gases  
 · **Label** 3

· **ADR**

· **Class** 2.1 F1 Gases  
 · **Label** 3

· **IMDG, IATA**

· **Class** 2.1 Gases  
 · **Label** 3

· **Packing group**  
 · **DOT/TDG, ADR, IMDG, IATA** I

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.  
 · **Hazard identification number (Kemler code):** 33  
 · **EMS Number:** F-D,S-U  
 · **Stowage Code** SW1 Protected from sources of heat.  
 SW22 For AEROSOLS with a maximum capacity of 1 litre:  
 Category A. For AEROSOLS with a capacity above 1 litre:  
 Category B. For WASTE AEROSOLS: Category C, Clear of living  
 quarters.  
 · **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre:  
 Segregation as for class 9. Stow "separated from" class 1 except  
 for division 1.4.  
 For AEROSOLS with a capacity above 1 litre:  
 Segregation as for the appropriate subdivision of class 2.  
 For WASTE AEROSOLS:  
 Segregation as for the appropriate subdivision of class 2.

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

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# Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: **CYTOPREP FIXATIVE**

(Contd. of page 7)

· **Transport/Additional information:**

· **DOT/TDG**

· **Quantity limitations**

On passenger aircraft/rail: 1 L

On cargo aircraft only: 30 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **IMDG**

· **Limited quantities (LQ)**

0

· **Excepted quantities (EQ)**

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· **UN "Model Regulation":**

UN 1950 AEROSOLS, 3, I

## 15 Regulatory information

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

No further relevant information available.

· **Sara**

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

None of the ingredients is listed.

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

67-63-0 | propan-2-ol

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

All components have the value ACTIVE.

· **Canadian substance listings:**

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

All ingredients are listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

67-63-0 | propan-2-ol

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

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

propan-2-ol

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

**Trade name: CYTOPREP FIXATIVE**

(Contd. of page 8)

· **Hazard statements**

*Causes serious eye irritation.*

*May cause drowsiness or dizziness.*

· **Precautionary statements**

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

*Wash thoroughly after handling.*

*Use only outdoors or in a well-ventilated area.*

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

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

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

*Continue rinsing.*

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

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

*Store in a well-ventilated place. Keep container tightly closed.*

*Store locked up.*

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

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

### 16 Other information

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

· **Contact:**

· **Date of the latest revision of the safety data sheet** 01/07/2022 / -

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

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

Printing date 07.01.2022

Revision: 07.01.2022

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

- **1.1 Product identifier**
- **Trade name:** CYTOPREP FIXATIVE
- **Article number:** 64145-01, 64145-12
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

---

Aerosol 3 H229 Pressurised container: May burst if heated.

- **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

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
propan-2-ol
- **Hazard statements**  
H229 Pressurised container: May burst if heated.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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# Safety data sheet

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

Printing date 07.01.2022

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**Trade name: CYTOPREP FIXATIVE**

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- P251 Do not pierce or burn, even after use.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P405 Store locked up.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 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: 74-98-6 EINECS: 200-827-9	propane Flam. Gas 1, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 75-28-5 EINECS: 200-857-2	isobutane Flam. Gas 1, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%

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

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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# Safety data sheet

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Trade name: **CYTOPREP FIXATIVE**

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- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Protect against electrostatic charges.  
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray onto a naked flame or any incandescent material.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

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

#### 67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m<sup>3</sup>, 500 ppmLong-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

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

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

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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

## SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Not applicable, as aerosol.

· **Flash point:** -87 °C

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

· **Ignition temperature:** 425 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: 1.7 Vol %

Upper: 12 Vol %

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· <b>Vapour pressure at 20 °C:</b>	8,300 hPa
· <b>Density at 20 °C:</b>	0.36043 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <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>	60.0 %
<b>VOC (EC)</b>	100.00 %
<b>Solids content:</b>	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

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

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### SECTION 12: Ecological information

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

### SECTION 13: Disposal considerations

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

### SECTION 14: Transport information

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b>                     |   |
| · <b>ADR, IMDG, IATA</b>                    | UN1950  |
| · <b>14.2 UN proper shipping name</b>       |   |
| · <b>ADR</b>                                | 1950 AEROSOLS   |
| · <b>IMDG, IATA</b>                         | AEROSOLS  |
| · <b>14.3 Transport hazard class(es)</b>    |   |
| · <b>ADR</b>                                |   |
|   |  |
| · <b>Class</b>                              | 2.1 Fl Gases.   |
| · <b>Label</b>                              | 3   |
| <hr style="border-top: 1px dashed black;"/> |   |
| · <b>IMDG, IATA</b>                         |   |
|   |  |
| · <b>Class</b>                              | 2.1 Gases.  |
| · <b>Label</b>                              | 3   |

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· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	<b>I</b>
· <b>14.5 Environmental hazards:</b>	<i>Not applicable.</i>
· <b>14.6 Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b> · <b>Stowage Code</b>	<i>Not applicable.</i> <b>33</b> <i>F-D,S-U</i> <i>SW1 Protected from sources of heat.</i> <i>SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</i>
· <b>Segregation Code</b>	<i>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.</i> <i>For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2.</i> <i>For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</i>
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>1L</b> <b>Code: E0</b> <i>Not permitted as Excepted Quantity</i>
· <b>Transport category</b> · <b>Tunnel restriction code</b>	<b>1</b> <b>D/E</b>
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>0</b> <b>Code: E3</b> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 300 ml</i>
· <b>UN "Model Regulation":</b>	<b>UN 1950 AEROSOLS, 3, I</b>

### 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.
- **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**  
*H220 Extremely flammable gas.*

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**Safety data sheet**  
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Revision: 07.01.2022

**Trade name: CYTOPREP FIXATIVE**

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*H225 Highly flammable liquid and vapour.**H280 Contains gas under pressure; may explode if heated.**H319 Causes serious eye irritation.**H336 May cause drowsiness or dizziness.***· Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Gas 1: Flammable gases – Category 1**Aerosol 3: Aerosols – Category 3**Press. Gas (Comp.): Gases under pressure – Compressed gas**Flam. Liq. 2: Flammable liquids – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

GB

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 07.01.2022

Herziening van: 07.01.2022

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

- **1.1 Productidentificatie**
- **Handelsnaam:** CYTOPREP FIXATIVE
- **Artikelnummer:** 64145-01, 64145-12
- **UFI:** XGH3-G0T6-J00J-79KN
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: [info@aurion.nl](mailto: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**



Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

STOT SE 3 H336 Kan slaperigheid of duizeligheid veroorzaken.

Aerosol 3 H229 Houder onder druk: kan open barsten bij verhitting.

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



- **Signaalwoord** Waarschuwing

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 07.01.2022

Herziening van: 07.01.2022

**Handelsnaam: CYTOPREP FIXATIVE**

(Vervolg van blz. 1)

- **Gevaaraanduidende componenten voor de etikettering:**  
2-propanol
- **Gevarenaanduidingen**  
H229 Houder onder druk: kan open barsten bij verhitting.  
H319 Veroorzaakt ernstige oogirritatie.  
H336 Kan slaperigheid of duizeligheid veroorzaken.
- **Veiligheidsaanbevelingen**  
P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.  
P251 Ook na gebruik niet doorboren of verbranden.  
P305+P351+P338 **BIJ CONTACT MET DE OGEN:** voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.  
P405 Achter slot bewaren.  
P410+P412 Tegen zonlicht beschermen. Niet blootstellen aan temperaturen boven 50 °C/122 °F.  
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.
- **2.3 Andere gevaren**
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

### RUBRIEK 3: Samenstelling en informatie over de bestanddelen

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

- **Gevaarlijke inhoudstoffen:**

CAS: 74-98-6 EINECS: 200-827-9	propan Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 75-28-5 EINECS: 200-857-2	isobutaan Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 67-63-0 EINECS: 200-661-7	2-propanol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%

- **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:**  
Frisse lucht toedienen, eventueel beademing, warmte. Wanneer de klachten niet ophouden, een arts raadplegen.  
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Over het algemeen is het produkt niet prikkelend voor de huid
- **Na oogcontact:**  
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 07.01.2022

Herziening van: 07.01.2022

**Handelsnaam: CYTOPREP FIXATIVE**

(Vervolg van blz. 2)

- **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>, zand, bluspoeder. Geen water gebruiken.
- **Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn:** Water
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**  
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweertieners**
- **Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures** Niet nodig.
- **6.2 Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:**  
Besmet materiaal zoals afval volgens punt 13 verwijderen.  
Voor voldoende ventilatie zorgen.  
Niet met water of waterachtige reinigingsmiddelen wegspoelen.
- **6.4 Verwijzing naar andere rubrieken**  
Informatie inzake veilig gebruik - zie hoofdstuk 7.  
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.  
Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**  
Beschermen tegen hitte.  
Maatregelen treffen tegen ontlading van statische elektriciteit.  
Houder onder druk. Beschermen tegen de zon en niet blootstellen aan een hogere temperatuur dan 50°C, bijv. door gloeilampen. Ook na gebruik niet doorboren of verbranden.  
Nietspuiten in de richting van een vlam of een gloeiend voorwerp.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:**  
De overheidsbepalingen m.b.t. de opslag van drukgaspakkingen moeten in acht genomen worden.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**  
Tanks ondoordringbaar gesloten houden.  
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

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

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

(Vervolg op blz. 4)

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(Vervolg van blz. 3)

- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**  
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Aanraking met de ogen vermijden.  
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**  
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.
- **Handbescherming:**  
Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het 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 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:**

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Kleurloos
<b>Geur:</b>	Reukloos
<b>Geurdrempelwaarde:</b>	Niet bepaald.
- **pH-waarde:** Niet bepaald.
- **Toestandsverandering**

<b>Smelt-/vriespunt:</b>	Niet bepaald.
<b>Beginkookpunt en kooktraject:</b>	Vanwege aerosol niet bruikbaar.
- **Vlampunt:** -87 °C
- **Ontvlambaarheid (vast, gas):** Niet bruikbaar.

(Vervolg op blz. 5)



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· <b>Ontstekingstemperatuur:</b>	425 °C
· <b>Ontledingstemperatuur:</b>	Niet bepaald.
· <b>Zelfontbrandingstemperatuur:</b>	Het produkt ontbrandt niet uit zichzelf.
· <b>Ontploffingseigenschappen:</b>	Het produkt is niet ontploffingsgevaarlijk.
· <b>Ontploffingsgrenzen:</b>	
<b>Onderste:</b>	1,7 Vol %
<b>Bovenste:</b>	12 Vol %
· <b>Dampspanning bij 20 °C:</b>	8.300 hPa
· <b>Dichtheid bij 20 °C:</b>	0,36043 g/cm <sup>3</sup>
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bruikbaar.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Niet resp. gering mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch:</b>	Niet bepaald.
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>Organisch oplosmiddel:</b>	60,0 %
<b>VOC (EG)</b>	100,00 %
<b>Gehalte aan vaste bestanddelen:</b>	0,0 %
· <b>9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

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

### RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**  
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 6)

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- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**  
Kan slaperigheid of duizeligheid veroorzaken.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)  
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein  
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

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

- |  |                  |
|--|------------------|
| · <b>14.1 VN-nummer</b>  |                  |
| · <b>ADR, IMDG, IATA</b>   | UN1950           |
| · <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b> |                  |
| · <b>ADR</b>   | 1950 SPUITBUSSEN |
| · <b>IMDG, IATA</b>  | AEROSOLS         |

(Vervolg op blz. 7)

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· **14.3 Transportgevarenklasse(n)**

· **ADR**



· **klasse** 2.1 F1 Gassen  
 · **Etiket** 3

· **IMDG, IATA**



· **Class** 2.1 Gassen  
 · **Label** 3

· **14.4 Verpakkingsgroep:**

· **ADR, IMDG, IATA** I

· **14.5 Milieugevaren:** Niet bruikbaar.

· **14.6 Bijzondere voorzorgen voor de gebruiker** Niet bruikbaar.

· **Gevaarsidentificatienummer (Kemler-getal):** 33

· **EMS-nummer:** F-D,S-U

· **Stowage Code**

SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre:  
 Category A. For AEROSOLS with a capacity above 1 litre:  
 Category B. For WASTE AEROSOLS: Category C, Clear of  
 living quarters.

· **Segregation Code**

SG69 For AEROSOLS with a maximum capacity of 1 litre:  
 Segregation as for class 9. Stow "separated from" class 1  
 except for division 1.4.  
 For AEROSOLS with a capacity above 1 litre:  
 Segregation as for the appropriate subdivision of class 2.  
 For WASTE AEROSOLS:  
 Segregation as for the appropriate subdivision of class 2.

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

Niet bruikbaar.

· **Transport/verdere gegevens:**

· **ADR**

· **Beperkte hoeveelheden (LQ)** 1L

· **Uitgezonderde hoeveelheden (EQ)** Code: E0

Niet toegestaan als vrijgestelde hoeveelheid

· **Vervoerscategorie**

1

· **Tunnelbeperkingscode**

D/E

· **IMDG**

· **Limited quantities (LQ)** 0

· **Excepted quantities (EQ)** Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

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· VN "Model Regulation":	UN 1950 SPUITBUSSEN, 3, I
--------------------------	---------------------------

### RUBRIEK 15: Regelgeving

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

· **SZW-lijst van kankerverwekkende stoffen**

geen der bestanddelen staat op de lijst.

· **SZW-lijst van mutagene stoffen**

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

· **Lijst Zeer Zorgwekkende Stoffen (ZZS)**

75-28-5 | isobutaan

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

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

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3

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

geen der bestanddelen staat op de lijst.

· **VERORDENING (EU) 2019/1148**

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

geen der bestanddelen staat op de lijst.

· **Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD**

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:**

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

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

-NL

(Vervolg op blz. 9)

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**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**

H220 Zeer licht ontvlambaar gas.

H225 Licht ontvlambare vloeistof en damp.

H280 Bevat gas onder druk; kan ontploffen bij verwarming.

H319 Veroorzaakt ernstige oogirritatie.

H336 Kan slaperigheid of duizeligheid veroorzaken.

**· Afkortingen en acroniemen:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Ontvlambare gassen – Categorie 1A

Aerosol 3: Aerosolen – Categorie 3

Press. Gas (Comp.): Gassen onder druk – Samengeperst gas

Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2

Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2

STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 07.01.2022

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

- **1.1 Identificateur de produit**
- **Nom du produit:** CYTOPREP FIXATIVE
- **Code du produit:** 64145-01, 64145-12
- **UFI:** XGH3-G0T6-J00J-79KN
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

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



GHS07

Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

STOT SE 3 H336 Peut provoquer somnolence ou vertiges.

Aerosol 3 H229 Récipient sous pression: peut éclater sous l'effet de la chaleur.

- **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

- **Mention d'avertissement** Attention
- **Composants dangereux déterminants pour l'étiquetage:**  
propane-2-ol
- **Mentions de danger**  
H229 Récipient sous pression: peut éclater sous l'effet de la chaleur.  
H319 Provoque une sévère irritation des yeux.  
H336 Peut provoquer somnolence ou vertiges.
- **Conseils de prudence**  
P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.

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(suite de la page 1)

- P251 Ne pas perforer, ni brûler, même après usage.  
 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.
- P405 Garder sous clef.  
 P410+P412 Protéger du rayonnement solaire. Ne pas exposer à une température supérieure à 50 °C/122 °F.
- P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

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

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

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

- **Composants dangereux:**

CAS: 74-98-6 EINECS: 200-827-9	propane ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 75-28-5 EINECS: 200-857-2	isobutane ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 67-63-0 EINECS: 200-661-7	propane-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%

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

### RUBRIQUE 4: Premiers secours

- **4.1 Description des premiers secours**
- **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. Assistance respiratoire si nécessaire. Tenir le malade au chaud. Si les troubles persistent, consulter un médecin.  
En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- **Après contact avec la peau:** En règle générale, le produit n'irrite pas la peau.
- **Après contact avec les yeux:**  
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** Si les troubles persistent, consulter un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**  
Pas d'autres informations importantes disponibles.

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

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** CO2, sable, poudre d'extinction. Ne pas utiliser d'eau.

(suite page 3)

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**Nom du produit:** CYTOPREP FIXATIVE

(suite de la page 2)

- **Produits extincteurs déconseillés pour des raisons de sécurité:** Eau
- **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:** Porter un appareil de protection respiratoire.

### RUBRIQUE 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:**  
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:**  
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.  
Ne pas rincer à l'eau ou aux produits nettoyants aqueux.
- **6.4 Référence à d'autres rubriques**  
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.  
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.  
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

### RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Veiller à une bonne ventilation/aspiration du poste de travail.
- **Préventions des incendies et des explosions:**  
Tenir à l'abri de la chaleur.  
Prendre des mesures contre les charges électrostatiques.  
Récipient sous pression: A protéger contre les rayons solaires et à ne pas exposer à une température supérieure à 50°C (par exemple, aux lampes à incandescence). Ne pas percer ou brûler, même après usage.  
Ne pas vaporiser vers une flamme ou un corps incandescent.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:**  
Respecter les prescriptions légales pour le stockage des emballages sous pression.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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

- **8.1 Paramètres de contrôle**
- **Indications complémentaires pour l'agencement des installations techniques:**  
Sans autre indication, voir point 7.
- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

<b>67-63-0 propane-2-ol</b>	
VLEP	Valeur momentané: 980 mg/m <sup>3</sup> , 400 ppm

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# Fiche de données de sécurité

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· **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.

Eviter tout contact avec les yeux.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

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

· **Protection des mains:**

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.

À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

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

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

**Forme:** Liquide

**Couleur:** Incolore

· **Odeur:** Inodore

· **Seuil olfactif:** Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

**Point de fusion/point de congélation:** Non déterminé.

**Point initial d'ébullition et intervalle d'ébullition:** Non applicable, s'agissant d'un aérosol.

· **Point d'éclair** -87 °C

· **Inflammabilité (solide, gaz):** Non applicable.

· **Température d'inflammation:** 425 °C

· **Température de décomposition:** Non déterminé.

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· <b>Température d'auto-inflammabilité:</b>	<i>Le produit ne s'enflamme pas spontanément.</i>
· <b>Propriétés explosives:</b>	<i>Le produit n'est pas explosif.</i>
· <b>Limites d'explosion:</b> <b>Inférieure:</b> <b>Supérieure:</b>	<i>1,7 Vol % 12 Vol %</i>
· <b>Pression de vapeur à 20 °C:</b>	<i>8.300 hPa</i>
· <b>Densité à 20 °C:</b> · <b>Densité relative</b> · <b>Densité de vapeur:</b> · <b>Taux d'évaporation:</b>	<i>0,36043 g/cm<sup>3</sup> Non déterminé. Non déterminé. Non applicable.</i>
· <b>Solubilité dans/miscibilité avec l'eau:</b>	<i>Pas ou peu miscible</i>
· <b>Coefficient de partage: n-octanol/eau:</b>	<i>Non déterminé.</i>
· <b>Viscosité:</b> <b>Dynamique:</b> <b>Cinématique:</b>	<i>Non déterminé. Non déterminé.</i>
· <b>Teneur en solvants:</b> <b>Solvants organiques:</b> <b>VOC (CE)</b>	<i>60,0 % 100,00 %</i>
<b>Teneur en substances solides:</b>	<i>0,0 %</i>
· <b>9.2 Autres informations</b>	<i>Pas d'autres informations importantes disponibles.</i>

### **RUBRIQUE 10: Stabilité et réactivité**

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

### **RUBRIQUE 11: Informations toxicologiques**

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** *Compte tenu des données disponibles, les critères de classification ne sont pas remplis.*
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
*Compte tenu des données disponibles, les critères de classification ne sont pas remplis.*
- **Lésions oculaires graves/irritation oculaire**  
*Provoque une sévère irritation des yeux.*
- **Sensibilisation respiratoire ou cutanée**  
*Compte tenu des données disponibles, les critères de classification ne sont pas remplis.*

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

### RUBRIQUE 12: Informations écologiques

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

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

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

### RUBRIQUE 14: Informations relatives au transport

- |  |               |
|--|---------------|
| · <b>14.1 Numéro ONU</b>                                   |               |
| · <b>ADR, IMDG, IATA</b>                                   | UN1950        |
| · <b>14.2 Désignation officielle de transport de l'ONU</b> |               |
| · <b>ADR</b>   | 1950 AÉROSOLS |
| · <b>IMDG, IATA</b>  | AEROSOLS      |

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## · 14.3 Classe(s) de danger pour le transport

## · ADR



· Classe 2.1 F1 Gaz.  
· Étiquette 3

## · IMDG, IATA



· Class 2.1 Gaz.  
· Label 3

## · 14.4 Groupe d'emballage

· ADR, IMDG, IATA I

## · 14.5 Dangers pour l'environnement:

Non applicable.

## · 14.6 Précautions particulières à prendre par l'utilisateur

Non applicable.

## · Numéro d'identification du danger (Indice Kemler):

33

## · No EMS:

F-D,S-U

## · Stowage Code

SW1 Protected from sources of heat.  
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

## · Segregation Code

SG69 For AEROSOLS with a maximum capacity of 1 litre:  
Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.  
For AEROSOLS with a capacity above 1 litre:  
Segregation as for the appropriate subdivision of class 2.  
For WASTE AEROSOLS:  
Segregation as for the appropriate subdivision of class 2.

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

Non applicable.

## · Indications complémentaires de transport:

## · ADR

· Quantités limitées (LQ) 1L

· Quantités exceptées (EQ) Code: E0

Non autorisé en tant que quantité exceptée

## · Catégorie de transport

1

## · Code de restriction en tunnels

D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· <b>"Règlement type" de l'ONU:</b>	UN 1950 AÉROSOLS, 3, I

### RUBRIQUE 15: Informations relatives à la réglementation

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

- Directive 2012/18/UE
- Substances dangereuses désignées - ANNEXE I Aucun des composants n'est compris.
- RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3

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

Aucun des composants n'est compris.

· RÈGLEMENT (UE) 2019/1148

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

### RUBRIQUE 16: Autres informations

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

· **Phrases importantes**

- H220 Gaz extrêmement inflammable.
- H225 Liquide et vapeurs très inflammables.
- H280 Contient un gaz sous pression; peut exploser sous l'effet de la chaleur.
- H319 Provoque une sévère irritation des yeux.
- H336 Peut provoquer somnolence ou vertiges.

· **Acronymes et abréviations:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)

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*PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Gas 1A: Gaz inflammables – Catégorie 1A**Aerosol 3: Aérosols – Catégorie 3**Press. Gas (Comp.): Gaz sous pression – Gaz comprimé**Flam. Liq. 2: Liquides inflammables – Catégorie 2**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3*

FR

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

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überarbeitet am: 07.01.2022

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

- **1.1 Produktidentifikator**
- **Handelsname:** CYTOPREP FIXATIVE
- **Artikelnummer:** 64145-01, 64145-12
- **UFI:** XGH3-G0T6-J00J-79KN
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.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)  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, [www.toxinfo.org](http://www.toxinfo.org)  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunfteibereich:** 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**



GHS07

- Eye Irrit. 2 H319 Verursacht schwere Augenreizung.
- STOT SE 3 H336 Kann Schläfrigkeit und Benommenheit verursachen.
- Aerosol 3 H229 Behälter steht unter Druck: kann bei Erwärmung bersten.

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

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(Fortsetzung von Seite 1)

### · Gefahrenpiktogramme



GHS07

### · Signalwort Achtung

### · Gefahrbestimmende Komponenten zur Etikettierung:

Propan-2-ol

### · Gefahrenhinweise

H229 Behälter steht unter Druck: kann bei Erwärmung bersten.

H319 Verursacht schwere Augenreizung.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

### · Sicherheitshinweise

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.

P251 Nicht durchstechen oder verbrennen, auch nicht nach Gebrauch.

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

P405 Unter Verschluss aufbewahren.

P410+P412 Vor Sonnenbestrahlung schützen. Nicht Temperaturen über 50 °C/122 °F aussetzen.

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

### · 2.3 Sonstige Gefahren

### · Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.· **vPvB:** Nicht anwendbar.

## ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

### · 3.2 Chemische Charakterisierung: Gemische

· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

### · Gefährliche Inhaltsstoffe:

CAS: 74-98-6	Propan	>25-≤50%
EINECS: 200-827-9	Flam. Gas 1A, H220; Press. Gas (Comp.), H280	
CAS: 75-28-5	Isobutan	>25-≤50%
EINECS: 200-857-2	Flam. Gas 1A, H220; Press. Gas (Comp.), H280	
CAS: 67-63-0	Propan-2-ol	>10-≤25%
EINECS: 200-661-7	Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	

· **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:

Frischlufzufuhr, gegebenenfalls Atemspende, Wärme. Bei anhaltenden Beschwerden Arzt konsultieren.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

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- **Nach Hautkontakt:** Im allgemeinen ist das Produkt nicht hautreizend.
- **Nach Augenkontakt:**  
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**  
Keine weiteren relevanten Informationen verfügbar.
- **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>, Sand, Löschpulver. Kein Wasser verwenden.
- **Aus Sicherheitsgründen ungeeignete Löschmittel:** Wasser
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.  
Nicht mit Wasser oder wässrigen Reinigungsmitteln wegspülen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung** Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
- **Hinweise zum Brand- und Explosionsschutz:**  
Vor Hitze schützen.  
Maßnahmen gegen elektrostatische Aufladung treffen.  
Behälter steht unter Druck. Vor Sonnenbestrahlung und Temperaturen über 50°C (z.B. durch Glühlampen) schützen. Auch nach Gebrauch nicht gewaltsam öffnen oder verbrennen.  
Nicht gegen Flamme oder auf glühenden Gegenstand sprühen.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:**  
Die behördlichen Vorschriften für das Lagern von Druckgaspackungen sind zu beachten.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**  
Behälter dicht geschlossen halten.  
Vor Hitze und direkter Sonnenbestrahlung schützen.

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- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

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

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

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

**74-98-6 Propan**

AGW	Langzeitwert: 1800 mg/m <sup>3</sup> , 1000 ml/m <sup>3</sup> 4(II);DFG
-----	--

**75-28-5 Isobutan**

AGW	Langzeitwert: 2400 mg/m <sup>3</sup> , 1000 ml/m <sup>3</sup> 4(II);DFG
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**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:**

**67-63-0 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.

Berührung mit den Augen vermeiden.

Berührung mit den Augen und der Haut vermeiden.

- **Atemschutz:**

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

- **Handschutz:**

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

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

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

- **Handschuhmaterial**

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

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aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialen nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

· **Allgemeine Angaben**

· **Aussehen:**

Form: Flüssigkeit

Farbe: Farblos

· Geruch: Geruchlos

· Geruchsschwelle: Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt: Nicht bestimmt.

Siedebeginn und Siedebereich: Nicht anwendbar, da Aerosol.

· Flammpunkt: -87 °C

· Entzündbarkeit (fest, gasförmig): Nicht anwendbar.

· Zündtemperatur: 425 °C

· Zersetzungstemperatur: Nicht bestimmt.

· Selbstentzündungstemperatur: Das Produkt ist nicht selbstentzündlich.

· Explosive Eigenschaften: Das Produkt ist nicht explosionsgefährlich.

· **Explosionsgrenzen:**

Untere: 1,7 Vol %

Obere: 12 Vol %

· Dampfdruck bei 20 °C: 8.300 hPa

· Dichte bei 20 °C: 0,36043 g/cm<sup>3</sup>

· Relative Dichte: Nicht bestimmt.

· Dampfdichte: Nicht bestimmt.

· Verdampfungsgeschwindigkeit: Nicht anwendbar.

· **Löslichkeit in / Mischbarkeit mit**

Wasser: Nicht bzw. wenig mischbar.

· Verteilungskoeffizient: n-Octanol/Wasser: Nicht bestimmt.

· **Viskosität:**

Dynamisch: Nicht bestimmt.

Kinematisch: Nicht bestimmt.

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<b>· Lösemittelgehalt:</b>	
<b>Organische Lösemittel:</b>	60,0 %
<b>VOC (EU)</b>	100,00 %
<b>Festkörpergehalt:</b>	0,0 %
<b>· 9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

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

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Zusätzliche toxikologische Hinweise:**
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Kann Schläfrigkeit und Benommenheit verursachen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend  
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.

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- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

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

### ABSCHNITT 14: Angaben zum Transport

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">UN1950</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">1950 DRUCKGASPACKUNGEN<br/>AEROSOLS</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR</b></li> </ul>  | <div style="text-align: center; margin-bottom: 10px;">  </div> <p style="margin-left: 20px;">2.1 F1 Gase</p> |
| <ul style="list-style-type: none"> <li>· <b>Klasse</b></li> <li>· <b>Gefahrzettel</b></li> </ul>  | <p style="margin-left: 20px;">3</p>   |
| <ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>   | <div style="text-align: center; margin-bottom: 10px;">  </div> <p style="margin-left: 20px;">2.1 Gase</p>    |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">3</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Verpackungsgruppe</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">I</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Umweltgefahren:</b></li> </ul>   | <p style="margin-left: 20px;">Nicht anwendbar.</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b></li> <li>· <b>Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):</b></li> <li>· <b>EMS-Nummer:</b></li> </ul> | <p style="margin-left: 20px;">Nicht anwendbar.</p> <p style="margin-left: 20px;">33</p> <p style="margin-left: 20px;">F-D,S-U</p>   |

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<ul style="list-style-type: none"> <li>· <b>Stowage Code</b></li> <li>· <b>Segregation Code</b></li> </ul>	<p>SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</p> <p>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> <li>· <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b> Nicht anwendbar.</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Transport/weitere Angaben:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Begrenzte Menge (LQ)</b></li> <li>· <b>Freigestellte Mengen (EQ)</b></li> <li>· <b>Beförderungskategorie</b></li> <li>· <b>Tunnelbeschränkungscode</b></li> </ul>	
<p>1L Code: E0 In freigestellten Mengen nicht zugelassen 1 D/E</p>	
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	
<p>0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml</p>	
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	
<p>UN 1950 DRUCKGASPACKUNGEN, 3, I</p>	

### 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.
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3
- **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**
- Keiner der Inhaltsstoffe ist enthalten.
- **VERORDNUNG (EU) 2019/1148**
- **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**
- Keiner der Inhaltsstoffe ist enthalten.
- **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**
- Keiner der Inhaltsstoffe ist enthalten.
- **Verordnung (EG) Nr. 273/2004 betreffend Drogenausgangsstoffe**
- Keiner der Inhaltsstoffe ist enthalten.

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

Keiner der Inhaltsstoffe ist enthalten.

· **Nationale Vorschriften:**

· **Technische Anleitung Luft:**

Klasse	Anteil in %
NK	60,0

· **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.

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

### ABSCHNITT 16: Sonstige Angaben

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

· **Relevante Sätze**

H220 Extrem entzündbares Gas.

H225 Flüssigkeit und Dampf leicht entzündbar.

H280 Enthält Gas unter Druck; kann bei Erwärmung explodieren.

H319 Verursacht schwere Augenreizung.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

· **Abkürzungen und Akronyme:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Entzündbare Gase – Kategorie 1A

Aerosol 3: Aerosole – Kategorie 3

Press. Gas (Comp.): Gase unter Druck – verdichtetes Gas

Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2

Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2

STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

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

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** CYTOPREP FIXATIVE
- **Articolo numero:** 64145-01, 64145-12
- **UFI:** XGH3-G0T6-J00J-79KN
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Società 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**



GHS07

- **Eye Irrit. 2 H319** Provoca grave irritazione oculare.
- **STOT SE 3 H336** Può provocare sonnolenza o vertigini.
- **Aerosol 3 H229** Contenitore pressurizzato: può esplodere se riscaldato.

- **2.2 Elementi dell'etichetta**
- **Etichettatura secondo il regolamento (CE) n. 1272/2008**  
Il prodotto è classificato ed etichettato conformemente al regolamento CLP.
- **Pittogrammi di pericolo**



GHS07

- **Avvertenza** Attenzione
- **Componenti pericolosi che ne determinano l'etichettatura:**  
2-propanolo

(continua a pagina 2)



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**Indicazioni di pericolo**

H229 Contenitore pressurizzato: può esplodere se riscaldato.

H319 Provoca grave irritazione oculare.

H336 Può provocare sonnolenza o vertigini.

**Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato fumare.

P251 Non perforare né bruciare, neppure dopo l'uso.

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.

P405 Conservare sotto chiave.

P410+P412 Proteggere dai raggi solari. Non esporre a temperature superiori a 50 °C/122 °F.

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: 74-98-6 EINECS: 200-827-9	propano Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 75-28-5 EINECS: 200-857-2	isobutano Flam. Gas 1A, H220; Press. Gas (Comp.), H280	>25-≤50%
CAS: 67-63-0 EINECS: 200-661-7	2-propanolo Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%

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

**SEZIONE 4: Misure di primo soccorso****4.1 Descrizione delle misure di primo soccorso****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 in zona ben areata, praticare eventualmente la respirazione artificiale, tenere al caldo. Se i disturbi persistono consultare il medico.

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

**Contatto con la pelle:** Generalmente il prodotto non è irritante per la pelle.**Contatto con gli occhi:**

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

**Ingestione:** Se il dolore persiste consultare il medico.**4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

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**Scheda di dati di sicurezza**  
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- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**  
Non sono disponibili altre informazioni.

### **SEZIONE 5: Misure antincendio**

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** CO<sub>2</sub>, sabbia, polvere. Non usare acqua.
- **Mezzi di estinzione inadatti per motivi di sicurezza:** Acqua
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Indossare il respiratore.

### **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:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**  
Smaltimento del materiale contaminato conformemente al punto 13.  
Provvedere ad una sufficiente areazione.  
Non dilavare con acqua o detergenti liquidi.
- **6.4 Riferimento ad altre sezioni**  
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.  
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.  
Per informazioni relative allo smaltimento vedere Capitolo 13.

### **SEZIONE 7: Manipolazione e immagazzinamento**

- **7.1 Precauzioni per la manipolazione sicura** Accurata ventilazione/aspirazione nei luoghi di lavoro.
- **Indicazioni in caso di incendio ed esplosione:**  
Proteggere dal calore.  
Adottare provvedimenti contro cariche elettrostatiche.  
Recipiente sotto pressione. Proteggere dai raggi solari e non esporre a una temperatura superiore ai 50°C, per esempio da lampade ad incandescenza. Non perforare né bruciare neppure dopo l'uso.  
Non vaporizzare su una fiamma o su corpo incandescente.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:**  
Osservare le disposizioni amministrative relative allo stoccaggio di spray.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**  
Mantenere i recipienti ermeticamente chiusi.  
Proteggere dal calore e dai raggi diretti del sole.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

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

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

(continua a pagina 4)

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

**74-98-6 propano**

TWA Valore a lungo termine: 1000 ppm

**75-28-5 isobutano**

TWA Valore a lungo termine: 1000 ppm

**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:**

**67-63-0 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.  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Evitare il contatto con gli occhi.  
Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

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

· **Guanti protettivi:**

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.  
A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.  
Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

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

IT

(continua a pagina 5)

**Scheda di dati di sicurezza**  
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### SEZIONE 9: Proprietà fisiche e chimiche

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

##### · Indicazioni generali

##### · Aspetto:

**Forma:** Liquido

**Colore:** Incolore

· **Odore:** Inodore

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

##### · Cambiamento di stato

**Punto di fusione/punto di congelamento:** Non definito.

**Punto di ebollizione iniziale e intervallo di ebollizione:** Non applicabile a causa di aerosol.

· **Punto di infiammabilità:** -87 °C

· **Infiammabilità (solidi, gas):** Non applicabile.

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

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

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

· **Proprietà esplosive:** Prodotto non esplosivo.

##### · Limiti di infiammabilità:

**Inferiore:** 1,7 Vol %

**Superiore:** 12 Vol %

· **Tensione di vapore a 20 °C:** 8.300 hPa

· **Densità a 20 °C:** 0,36043 g/cm<sup>3</sup>

· **Densità relativa** Non definito.

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

· **Velocità di evaporazione** Non applicabile.

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

Poco e/o non miscibile.

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

##### · Viscosità:

**Dinamica:** Non definito.

**Cinematica:** Non definito.

##### · Tenore del solvente:

**Solventi organici:** 60,0 %

**VOC (CE)** 100,00 %

**Contenuto solido:** 0,0 %

· **9.2 Altre informazioni** Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

· **10.1 Reattività** Non sono disponibili altre informazioni.

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

### SEZIONE 11: Informazioni tossicologiche

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

### SEZIONE 12: Informazioni ecologiche

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

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- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

### SEZIONE 14: Informazioni sul trasporto

- **14.1 Numero ONU**
- **ADR, IMDG, IATA**

UN1950

- **14.2 Nome di spedizione dell'ONU**

- **ADR**
- **IMDG, IATA**

1950 AEROSOL

AEROSOLS

- **14.3 Classi di pericolo connesso al trasporto**

- **ADR**



- **Classe**
- **Etichetta**

2.1 F1 Gas

3

- **IMDG, IATA**



- **Class**
- **Label**

2.1 Gas

3

- **14.4 Gruppo di imballaggio**

- **ADR, IMDG, IATA**

I

- **14.5 Pericoli per l'ambiente:**

Non applicabile.

- **14.6 Precauzioni speciali per gli utilizzatori**
- **N° identificazione pericolo (Numero Kemler):**
- **Numero EMS:**
- **Stowage Code**

Non applicabile.

33

F-D,S-U

SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre:

Category A. For AEROSOLS with a capacity above 1 litre:

Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

SG69 For AEROSOLS with a maximum capacity of 1 litre:

Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

For AEROSOLS with a capacity above 1 litre:

Segregation as for the appropriate subdivision of class 2.

For WASTE AEROSOLS:

Segregation as for the appropriate subdivision of class 2.

- **Segregation Code**

- **14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC**

Non applicabile.

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· **Trasporto/ulteriori indicazioni:**· **ADR**· **Quantità limitate (LQ)**

1L

· **Quantità esenti (EQ)**

Codice: E0

Vietato al trasporto in quantità esente

· **Categoria di trasporto**

1

· **Codice di restrizione in galleria**

D/E

· **IMDG**· **Limited quantities (LQ)**

0

· **Excepted quantities (EQ)**

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· **UN "Model Regulation":**

UN 1950 AEROSOL, 3, I

### SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Direttiva 2012/18/UE**· **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3

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

Nessuno dei componenti è contenuto.

· **REGOLAMENTO (UE) 2019/1148**

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

· **Disposizioni nazionali:**· **Istruzione tecnica aria:**

Classe	quota in %
NC	60,0

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

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**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**

- H220 Gas altamente infiammabile.*
- H225 Liquido e vapori facilmente infiammabili.*
- H280 Contiene gas sotto pressione; può esplodere se riscaldato.*
- H319 Provoca grave irritazione oculare.*
- H336 Può provocare sonnolenza o vertigini.*

**· Abbreviazioni e acronimi:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*
- IMDG: International Maritime Code for Dangerous Goods*
- IATA: International Air Transport Association*
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
- EINECS: European Inventory of Existing Commercial Chemical Substances*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- VOC: Volatile Organic Compounds (USA, EU)*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Flam. Gas 1A: Gas infiammabili – Categoria 1A*
- Aerosol 3: Aerosol – Categoria 3*
- Press. Gas (Comp.): Gas sotto pressione – Gas compresso*
- Flam. Liq. 2: Liquidi infiammabili – Categoria 2*
- Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2*
- STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3*

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물질안전보건자료  
GHS에 따라라따

인쇄일자: 2022.01.07

개정: 2022.01.07

1 화학제품과 회사에 관한 정보

제품제품제명

· 제품명: CYTOPREP FIXATIVE

· 상품번호: 64145-01, 64145-12

해당해당해당물질이나 혼합물액과관련하여응도 및 사용금지응도

· 제품의 권고 용도와 사용 용도에 대한 제한 제한 45-12

· 제품의 권고 용도와 사용 용도에 대한 제한 제한 시험 실 화 학 품

· 안전데이터표(Safety Data Sheet)내 공급업체 관련 정보 정보

· 제조자/수입자/유통 업체 정보 정보

Electron Microscopy Sciences

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

email: info@emsdiasum.com

www.emsdiasum.com

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Daedok Science, Co. Ltd.

34141 E10 Korea Advanced Institute of Science

Guseong-Dong, Yuseong-gu, Daejeon,

Korea

Phone: 82 42 710 2091

Fax: 82 42 367 0005

Website: www.labsmro.com

· 추가적인 정보 정보 가능 product safety department

· 비상연락 전화번호:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 유해성·위험성

· 순물질 또는 혼합물액 분류 분류



심한 눈 손상성/눈 자극성 - 구분 2 H319 눈에 심한 자극을 일으킴

특정표적장기 독성 - 1회 노출- 구분3 H336 졸음 또는 현기증을 일으킬 수 있음

· 라벨표기 요소 요소

· 라벨 라벨 요소

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

· GHS 그림문자



GHS07

(2 쪽에 계속)

### 물질안전보건자료 GHS에 따라

인쇄일자: 2022.01.07

개정: 2022.01.07

**제품명: CYTOPREP FIXATIVE**

(1 쪽부터 계속)

· **신호어 경고**  
**유해**

· **유해위험문구**  
눈에 심한 자극을 일으킴  
졸음 또는 현기증을 일으킬 수 있음

· **예방조치문구**

분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.

눈 보호대 / 안면 보호구 착용.

흡입 하면 신선한 공기가 있는 곳으로 옮기고 호흡하기 쉬운 자세로 안정을 취하십시오.

눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.

밀봉하여 저장하십시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

기타기타 **유해성**

· PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)을 함유하지 않음.

· PBT(잔류성, 생물농축성, 독성물질)에 해당사항 없음.

· vPvB(고 잔류성, 고 생물농축성 물질)에 해당사항 없음.

#### 3 구성성분의 명칭 및 함유량

· **화학적 특성: 혼합물**

설명 설명 사항: 점 가 물 이 함유된 아래에 열 거 된 물 질 로 만 들 어 진 혼 합 물.

· **위험요소요소**

74-98-6	propane ⚠️ 고압가스- 압축가스, H280	>25-≤50%
75-28-5	isobutane ⚠️ 고압가스- 압축가스, H280	>25-≤50%
67-63-0	propan-2-ol ⚠️ 인화성 액체 - 구분 2, H225; ⚠️ 심한 눈 손상성/눈 자극성 - 구분 2, H319; 특정표적 장기 독성 - 1회 노출- 구분 3, H336	>10-≤25%

#### 4 응급조치 요령

· **응급조치요령 내용내용**

· **일반적 정보정보**

중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.

· **흡입했을 때:**

신선한 공기를 쉰고, 필요할 경우에는 산소 호흡기의 도움을 받는다. 환자를 따뜻하게 하고, 증상이 지속될 경우에는 의료진의 도움을 구한다.

환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· **피부에 접촉했을 때:** 일반적으로 이 제품은 피부에 자극적이지 않다.

· **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다

· **먹었을 때:** 증상이 지속될 경우에는 의사와 상담한다.

기타기타 **각각의 주의사항:**

가장 가장 중요한 응급조치요령은 항상 가장 중요한 정보가 존재하지 않습니다.

· **즉각적인 의료처리 및 특별처리가 필요함을 시사하는 징후 중** 어떤 정보가 존재하지 않습니다.

#### 5 폭발·화재시 대처방법

· **소화제**

· **적절한 소화제:** 이산화탄소, 모래, 석회가루를 사용하고, 물을 사용하지 않는다.

(3 쪽에 계속)

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(2 쪽부터 계속)

- 부적절한 소화제: 물
  - 본 화학물질이나 혼합물에서 발생하여 특별한 주의가 필요한 추가적인 정보가 존재하지 않습니다.
  - 소방관에게 대한 경고 사항
- 화재 화학물질에 대한 작업용 보호구 및 예방조치: 호흡보호장비 설치.

## 6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급 처치 절차 필요 없음.
- 환경 관련 예방조치: 하수도망/해수면위의물/지하수로도달하지않게한다.
- 밀폐밀봉하여 화염으로부터 보호
- 방목 13에 따라 오염된 물질을 쓰레기로 처분한다.
- 충분한 환기가 되도록 한다.
- 물이나 묽은 세척제로 씻어 내지 마십시오
- **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 취급 취급
- 안전안전을 위한 예방 조치 작업장에서는 통풍이 잘 되고 습기 제거가 잘 되게 주의한다.
- 화재 화학물질 취급 시 예방 대책에 관한 정보
- 열로부터 보호한다.
- 정 전기의 충전으로부터 보호한다.
- 용기는 압축되어 있다. 태양광선이나 50°C 이상의 온도로부터 보호한다. 역시 사용 후에는 강제적으로 개봉하거나 소각시키지 않는다.
- 화염에 가까이하거나 타고 있는 물건에 분사하지 않는다.
- 혼합 위험성 관련 안전 정보
- 보관 보관 보관
- 안전 관련 정보
- 하중 관련 정보
- 보관 조건에 관한 추가 정보
- 용기를 새지 않게 밀폐한 채 보관한다.
- 열이나 직사광선으로부터 보호한다.
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

## 8 노출방지 및 개인보호구

- 첨단 시설 디자인에 대한 추가 정보: 더 이상 의 자료는 없음. 항목 7을 참고하십시오.
- 통제 통제 통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:	
74-98-6 propane	
PEL (US)	장기간의 값: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (US)	장기간의 값: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV (US)	see Appendix F Minimal oxygen content ( D, EX)

(4 쪽에 계속)

# 물질안전보건자료

GHS에 따라 라다

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**75-28-5 isobutane**

OELV (KR)	장기간의 값: 800 ppm 발암성 1A, 생식세포 변이원성 1B
TLV (US)	단기간의 값: 1000 ppm (EX)

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

OELV (KR)	단기간의 값: 400 ppm 장기간의 값: 200 ppm
PEL (US)	장기간의 값: 980 mg/m <sup>3</sup> , 400 ppm
REL (US)	단기간의 값: 1225 mg/m <sup>3</sup> , 500 ppm 장기간의 값: 980 mg/m <sup>3</sup> , 400 ppm
TLV (US)	단기간의 값: 400 ppm 장기간의 값: 200 ppm BEI, A4

**· 생물학적 허용 값을 갖는 동물 실험 원료**

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

BEI (US)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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· 추가 정보: 정보 할 당시에 유효 한 목록을 기초로 사용했다.

노출 통제 통제  
개인 개인 보호구

**· 일반적 보호 조치 및 위생 조치:**

- 식품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워 지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이나 작업이 끝날 때 마다 손을 씻는다.
- 눈과의 접촉을 피한다.
- 눈과 피부와의 접촉을 피한다.

**· 호흡기 보호 보호**

· 단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡 보호 장비를 사용한다.

**· 눈 보호 보호**

· 장갑재질은 제품 / 원료 / 조제를 투과시키지 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 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제로 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 보호 장갑 제조자에 의하여 인지되고, 준수되어야 한다.

**· 눈 보호 보호**



· 착용하는 보안경

# 물질안전보건자료 GHS에 따라

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## 9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

· 일반정보	
외형외형의형	액체
· 물량계상태	색소가 없는
· 색:	무취의
냄새냄새냄새	알맞지 않다.
· 후각역치	
· pH:	알맞지 않다.
· 상태변화	
· 녹는점/어는점:	맞지 않는다.
초기초기끓는점과 끓는점범위범위	연 무 질 이 기 때 문 에 해당 사항 없음.
· 인화점:	-87 °C
· 인화성고체고체기체	해당 사항 없음.
· 점화온도:	425 °C
분해분해온도	알맞지 않다.
· 자기점화:	이제품은자연발화성이 없다.
· 폭발위험:	이제품은폭발위험성이 없다
인화 안전 인화폭발 위험의 상한하한	
· 아래로:	1.7 Vol %
· 위로위로	12 Vol %
· 증기압 의 경우 20 °C:	8,300 hPa
밀도 밀도 밀도 경우 20 °C:	0.36043 g/cm <sup>3</sup>
· 비중 비중 비중	알맞지 않다.
· 증기밀도:	알맞지 않다.
증발 증발 증발 속도	해당 사항 없음.
· 용해도:	
· 물:	각각의 경우에 따라서는 거의 혼합할 수 없는
· n 옥탄올/물 분배계수:	알맞지 않다.
점도 점도 점도	
· 역학성:	알맞지 않다.
· 동점성:	알맞지 않다.
· 용매 내용물	
· 유기용매:	60.0 %
· VOC (EU)	100.00 %
· 고체 양 함량 함량	0.0 %
기타 정보 정보	추가적인 정보가 존재하지 않습니다.

## 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해 예방 조건 조건에 따라 사용할 경우 해체는 없다

(6 쪽에 계속)

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- **유해반응 가능성** 위험한 반응으로는 알려지지 않았다.
- **피해 조건** 조건에 따라 추가적인 정보가 존재하지 않습니다.
- **혼합** 혼합 시 추가적인 정보가 존재하지 않습니다.
- **유해분해물질:** 위험성 있는 분해물들은 알려지지 않았다.

## 11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- 급성 **독성** 독성
- **일차적 자극 효과**
- 피부 **피부 부식성 또는 자극성:** 무자극
- 심한 **심한 부식성 또는 자극성:** 자극
- **감각화:** 민감한 영향이 없는 것으로 알려져 있다.
- **추가적인 독성에 관한 정보**
- 이제 제품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들 의사전 준비에 대하여 제시하고 있다.
- 건강에 해로운
- 자극적인

## 12 환경에 미치는 영향

- 독성 **독성** 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 **양분** 양분
- 수질 오염 등급 1 (자체 등급 분류): 약하게 수질 오염이 된
- 희석시키지 않은 채 대량으로 지하시나, 하천으로 그리고 하수도망에도 도달하지 않게 한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 대한 결과**
- **PBT(잔류성, 생물농축성, 독성 물질)** 당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질)** 당사항 없음.
- 기타 기타 **부작용** 추가적인 정보가 존재하지 않습니다.

## 13 폐기시 주의사항

- **폐기물 처리 방법**
- 권고 권고 **생활 쓰레기**와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.
- **비위생적 포장 포장**
- 권고 권고 **폐기물** 의 지침에 입각한 쓰레기 처리.

## 14 운송에 필요한 정보

- 유엔 **위험물** 번호
- **ADR, IMDG, IATA** UN1950

(7 쪽에 계속)

# 물질안전보건자료



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<ul style="list-style-type: none"> <li>· <b>적정적정액명</b></li> <li>· ADR</li> <li>· IMDG, IATA</li> </ul>	<p>1950 AEROSOLS AEROSOLS</p>
<p>교통 위험성</p> <ul style="list-style-type: none"> <li>· ADR</li> </ul>	
<p>등급</p> <ul style="list-style-type: none"> <li>· 위험물 라벨라벨</li> <li>· IMDG, IATA</li> </ul>	<p>2.1 F1 가스 3</p> <hr style="border-top: 1px dashed #000;"/> 
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>2.1 가스 3</p>
<ul style="list-style-type: none"> <li>· 용기등급</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>I</p>
<ul style="list-style-type: none"> <li>· 환경적 유해물질:</li> </ul>	<p>해당사항 없음.</p>
<ul style="list-style-type: none"> <li>· <b>이동시 특별 취급 조치</b></li> <li>위험물 코드</li> <li>· EBC 번호</li> <li>· Stowage Code</li> <li>· Segregation Code</li> </ul>	<p>해당사항 없음. 33 F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> <li>· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송</li> </ul>	<p>해당사항 없음.</p>
<ul style="list-style-type: none"> <li>· 운송/추가정보</li> <li>· ADR</li> </ul>	<p>1L Code: E0 Not permitted as Excepted Quantity</p>
<p>한정 양 (EQ)</p> <ul style="list-style-type: none"> <li>· Excepted quantities (EQ)</li> </ul>	<p>1 D/E</p>
<p>운송 구분</p> <ul style="list-style-type: none"> <li>· 터널 제한 코드</li> </ul>	<p>1 D/E</p>

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# 물질안전보건자료 GHS에 따라라따

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**제품명: CYTOPREP FIXATIVE**

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· IMDG	0
· Limited quantities (LQ)	Code: E3
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· <del>산업안전보건법</del> 규제	UN 1950 AEROSOLS, 3, I

## 15 법적 규제현황

· ~~산업안전보건법~~ 규제

제조제조금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

67-63-0 | propan-2-ol

· 작업환경측정 대상유해인자

67-63-0 | propan-2-ol

1A79

· 특수건강검진 대상유해인자

67-63-0 | propan-2-ol

1A74

해당 해당 순물질 또는 혼합물에 대한 ~~산업안전보건법~~ 규제 관련 규정을 포함적인 정보가 존재하지 않습니다.

· Korean Existing Chemical Inventory

74-98-6 | propane

KE-29258

75-28-5 | isobutane

KE-24865

67-63-0 | propan-2-ol

KE-29363

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 400 리터

~~등록~~ 등록 대상 화학물질

어떠한내용물도목록화되어있지않다

· '21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 ~~화학물질~~

어떠한내용물도목록화되어있지않다

(9 쪽에계속)



# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2022.01.07

개정: 2022.01.07

**제품명: CYTOPREP FIXATIVE**

(8 쪽부터계속)

**· 중점관리물 질명 지정 지정**

**· 표1 중점관리물 질(제관전 관련 관련)**

어떠한 내용물 도 목록화 되어 있지 않다

**· 표2 중점관리물 질(제관전 관련 관련)**

어떠한 내용물 도 목록화 되어 있지 않다

**· 라벨 라벨 과 발 요소**

본 제품은 화학 물질의 분류 및 표기에 관한 국제 조화 시스템(GHS)에 따라 분류 및 표기 되었습니다.

**· GHS 그림 문자**



GHS07

**· 신호어 경고**

**유해 유해 위험 문구**

눈에 심한 자극을 일으킴  
 졸음 또는 현기증을 일으킬 수 있음

**· 예방 조치 문구**

분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.  
 눈 보호대 / 안면 보호구 착용.  
 흡입 하면 신선한 공기가 있는 곳으로 옮기고 호흡하기 쉬운 자세로 안정을 취하십시오.  
 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능 하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.  
 밀봉 하여 저장 하십시오.  
 (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기 하십시오.

**· 화학 물질 안전성 평가 평 화학 물질 안전성 평가가 수행되지 않음**

### 16 그 밖의 참고 사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다, 하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

**· 담당자:**

최초 최초 작성 일자: 2022.01.07

개정 개정 개수 및 최종 개정 일자: 1 / 2022.01.07

**· 약어와 두문자어:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 07.01.2022

Revisión: 07.01.2022

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

- **1.1 Identificador del producto**
- **Nombre comercial:** CYTOPREP FIXATIVE
- **Número del artículo:** 64145-01, 64145-12
- **UFI:** XGH3-G0T6-J00J-79KN
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**  
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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](mailto: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**



GHS07

Eye Irrit. 2 H319 Provoca irritación ocular grave.

STOT SE 3 H336 Puede provocar somnolencia o vértigo.

Aerosol 3 H229 Recipiente a presión: Puede reventar si se calienta.

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



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- **Palabra de advertencia** Atención

( se continua en página 2 )

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- **Componentes peligrosos a indicar en el etiquetaje:**

2-propanol

- **Indicaciones de peligro**

H229 Recipiente a presión: Puede reventar si se calienta.

H319 Provoca irritación ocular grave.

H336 Puede provocar somnolencia o vértigo.

- **Consejos de prudencia**

P210

Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P251

No perforar ni quemar, incluso después de su uso.

P305+P351+P338 **EN CASO DE CONTACTO CON LOS OJOS:** Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

P405

Guardar bajo llave.

P410+P412

Proteger de la luz del sol. No exponer a temperaturas superiores a 50 °C/122 °F.

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: 74-98-6	propano	>25-≤50%
EINECS: 200-827-9	☠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	
CAS: 75-28-5	isobutano	>25-≤50%
EINECS: 200-857-2	☠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	
CAS: 67-63-0	2-propanol	>10-≤25%
EINECS: 200-661-7	☠ Flam. Líq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	

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

### SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**

- **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 aire fresco; eventualmente hacer respiración artificial, calor. Si los trastornos persisten, consultar al médico.

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

- **En caso de contacto con la piel:** Por regla general, el producto no irrita la piel.

- **En caso de con los ojos:**

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

- **En caso de ingestión:** Consultar un médico si los trastornos persisten.

- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.

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**Nombre comercial: CYTOPREP FIXATIVE**

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- **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>, arena, polvo extintor. No utilizar agua.
- **Sustancias extintoras inapropiadas por razones de seguridad:** Agua
- **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:** Colocarse la protección respiratoria.

### 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:**  
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
Desechar el material contaminado como vertido según ítem 13.  
Asegurar suficiente ventilación.  
No enjuagar con agua ni productos de limpieza acuosos.
- **6.4 Referencia a otras secciones**  
Ver capítulo 7 para mayor información sobre una manipulación segura.  
Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
- **Prevención de incendios y explosiones:**  
Proteger del calor.  
Tomar medidas contra las cargas electrostáticas.  
Cuidado: recipiente bajo presión. Protegerlo de la luz solar directa y de temperaturas superiores a 50°C (por ejemplo bombillas eléctricas). Incluso después de la utilización, no abrirlo con fuerza ni quemarlo.  
No rociar sobre llamas o cuerpos incandescentes.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:**  
Observar las prescripciones vigentes para el almacenamiento de envases con gas comprimido.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.  
Proteger del calor y de la luz directa del sol.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

ES

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# Ficha de datos de seguridad

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Nombre comercial: CYTOPREP FIXATIVE

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

#### · 8.1 Parámetros de control

#### · Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:

Sin datos adicionales, ver punto 7.

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

##### 74-98-6 propano

LEP	Valor de larga duración: 1000 ppm
-----	-----------------------------------

##### 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:

##### 67-63-0 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.

Quitarse de inmediato la ropa ensuciada o impregnada.

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

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

#### · Protección respiratoria:

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

#### · Protección de manos:

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

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

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

#### · Material de los guantes

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

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· **Protección de ojos:**

Gafas de protección herméticas

### SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**· **Datos generales**· **Aspecto:**Forma: *Líquido*Color: *Incoloro*· **Olor:** *Inodoro*· **Umbral olfativo:** *No determinado.*· **valor pH:** *No determinado.*· **Cambio de estado**Punto de fusión/punto de congelación: *Indeterminado.*Punto inicial de ebullición e intervalo de ebullición: *No aplicable, ya que se trata de un aerosol.*· **Punto de inflamación:** *-87 °C*· **Inflamabilidad (sólido, gas):** *No aplicable.*· **Temperatura de ignición:** *425 °C*· **Temperatura de descomposición:** *No determinado.*· **Temperatura de auto-inflamación:** *El producto no es autoinflamable.*· **Propiedades explosivas:** *El producto no es explosivo.*· **Límites de explosión:**Inferior: *1,7 Vol %*Superior: *12 Vol %*· **Presión de vapor a 20 °C:** *8.300 hPa*· **Densidad a 20 °C:** *0,36043 g/cm<sup>3</sup>*· **Densidad relativa** *No determinado.*· **Densidad de vapor** *No determinado.*· **Tasa de evaporación:** *No aplicable.*· **Solubilidad en / miscibilidad con agua:***Poco o no mezclable.*· **Coeficiente de reparto: n-octanol/agua:** *No determinado.*· **Viscosidad:**Dinámica: *No determinado.*Cinemática: *No determinado.*· **Concentración del disolvente:**Disolventes orgánicos: *60,0 %*VOC (CE) *100,00 %*· **Contenido de cuerpos sólidos:** *0,0 %*

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· **9.2 Otros datos**

No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

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

### SECCIÓN 12: Información ecológica

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

( se continua en página 7 )

# Ficha de datos de seguridad

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· **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN1950

- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1950 AEROSOLES
- **IMDG, IATA** AEROSOLS

- **14.3 Clase(s) de peligro para el transporte**

- **ADR**



- **Clase** 2.1 F1 Gases
- **Etiqueta** 3

- **IMDG, IATA**



- **Class** 2.1 Gases
- **Label** 3

- **14.4 Grupo de embalaje**

- **ADR, IMDG, IATA** I

- **14.5 Peligros para el medio ambiente:** No aplicable.

- **14.6 Precauciones particulares para los usuarios** No aplicable.

- **Número de identificación de peligro (Número Kemler):** 33
- **Número EMS:** F-D,S-U
- **Stowage Code** SW1 Protected from sources of heat.  
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.  
SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.  
For AEROSOLS with a capacity above 1 litre:
- **Segregation Code**

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	Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <b>14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC</b>	No aplicable.
· <b>Transporte/datos adicionales:</b>	
· <b>ADR</b>	
· <b>Cantidades limitadas (LQ)</b>	1L
· <b>Cantidades exceptuadas (EQ)</b>	Código: E0 No se permite como cantidad exceptuada
· <b>Categoría de transporte</b>	1
· <b>Código de restricción del túnel</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· <b>"Reglamentación Modelo" de la UNECE:</b>	UN 1950 AEROSOLS, 3, 1

### 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
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3**
- **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**
- ninguno de los componentes está incluido en una lista
- **REGLAMENTO (UE) 2019/1148**
- **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**
- ninguno de los componentes está incluido en una lista
- **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**
- ninguno de los componentes está incluido en una lista
- **Reglamento (CE) no 273/2004 sobre precursores de drogas**
- ninguno de los componentes está incluido en una lista
- **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**
- ninguno de los componentes está incluido en una lista
- **15.2 Evaluación de la seguridad química: Una evaluación de la seguridad química no se ha llevado a cabo.**

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# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 07.01.2022

Revisión: 07.01.2022

**Nombre comercial: CYTOPREP FIXATIVE**

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### 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**

H220 Gas extremadamente inflamable.

H225 Líquido y vapores muy inflamables.

H280 Contiene gas a presión; peligro de explosión en caso de calentamiento.

H319 Provoca irritación ocular grave.

H336 Puede provocar somnolencia o vértigo.

· **Abreviaturas y acrónimos:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Gases inflamables – Categoría 1A

Aerosol 3: Aerosoles – Categoría 3

Press. Gas (Comp.): Gases a presión – Gas comprimido

Flam. Liq. 2: Líquidos inflamables – Categoría 2

Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2

STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3