

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2022

Reviewed on 05/10/2022

## 1 Identification

- **Product identifier**
- **Trade name:** Glutaraldehyde 70% EM Grade
- **Article number:** 16350, 16360-SP, 16360, 16365
- **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**



GHS06 Skull and crossbones

Acute Toxicity - Oral 3

H301 Toxic if swallowed.

Acute Toxicity - Inhalation 2

H330 Fatal if inhaled.



GHS08 Health hazard

Sensitization - Respiratory 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 Corrosion

Skin Corrosion 1B

H314 Causes severe skin burns and eye damage.

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

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

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Trade name: **Glutaraldehyde 70% EM Grade**

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labeling:***Glutaraldehyde*· **Hazard statements***Toxic if swallowed.**Fatal if inhaled.**Causes severe skin burns and eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**May cause respiratory irritation.*· **Precautionary statements***Do not breathe dusts or mists.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing must not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**If swallowed: Rinse mouth. Do NOT induce vomiting.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**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.**Specific treatment is urgent (see on this label).**If skin irritation or rash occurs: Get medical advice/attention.**If experiencing respiratory symptoms: Call a poison center/doctor.**Wash contaminated clothing before reuse.**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 = 3**Fire = 0**Reactivity = 1*· **HMIS-ratings (scale 0 - 4)***Health = 3**Fire = 0**Reactivity = 1*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.

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· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

- **Dangerous components:**

111-30-8	Glutaraldehyde	>50-≤100%
67-56-1	Methyl Alcohol	≤2.5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
Remove breathing apparatus only after contaminated clothing have been completely removed.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**  
Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**  
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.  
· **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **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**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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- Use neutralizing agent.  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.
- **Reference to other sections**  
 See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.
  - **Protective Action Criteria for Chemicals**

- **PAC-1:**

111-30-8	Glutaraldehyde	0.2 ppm
67-56-1	Methyl Alcohol	530 ppm

- **PAC-2:**

111-30-8	Glutaraldehyde	1 ppm
67-56-1	Methyl Alcohol	2,100 ppm

- **PAC-3:**

111-30-8	Glutaraldehyde	5 ppm
67-56-1	Methyl Alcohol	7200* ppm

## 7 Handling and storage

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

## 8 Exposure controls/personal protection

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

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

**111-30-8 Glutaraldehyde**

REL	Ceiling limit value: 0.8 mg/m <sup>3</sup> , 0.2 ppm See Pocket Guide App. C
TLV	Ceiling limit value: 0.05 ppm DSEN;RSEN ;activated or inactivated, A4

**67-56-1 Methyl Alcohol**

PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin

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TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI
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· **Ingredients with biological limit values:**

**67-56-1 Methyl Alcohol**

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

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

· **Breathing equipment:**

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

· **Protection of hands:**



Protective gloves

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Liquid

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· <b>Color:</b>	Transparent
· <b>Odor:</b>	Fruit-like
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	-21 °C (-5.8 °F)
<b>Boiling point/Boiling range:</b>	100.5 °C (212.9 °F)
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <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>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure at 20 °C (68 °F):</b>	0.3 hPa (0.2 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	1.129 g/cm <sup>3</sup> (9.42151 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.5 %
<b>Water:</b>	29.5 %
<b>VOC content:</b>	0.50 %
	8.5 g/l / 0.07 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.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

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

**111-30-8 Glutaraldehyde**

Oral	LD50	134 mg/kg (rat)
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Dermal	LD50	2,560 mg/kg (rabbit)
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· **Primary irritant effect:**

· **on the skin:** Strong caustic effect on skin and mucous membranes.

· **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· **Additional toxicological information:**

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

Toxic

Harmful

Corrosive

Irritant

Very toxic

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

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

None of the ingredients is listed.

· **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.

· **Ecotoxicological effects:**

· **Remark:**

Very toxic for fish

Toxic for fish

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· **Additional ecological information:**

· **General notes:**

*Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.*

*Very toxic for aquatic organisms*

*Toxic for aquatic organisms*

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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

· **Uncleaned packagings:**

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

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN3265

· **UN proper shipping name**

· **DOT**

· **ADR**

· **IMDG, IATA**

*Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde)  
3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS  
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)*

· **Transport hazard class(es)**

· **DOT**



· **Class**

8 Corrosive substances

· **Label**

8, 6.1

· **ADR**



· **Class**

8 Corrosive substances

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Trade name: **Glutaraldehyde 70% EM Grade**

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· **Label** 8+6.1· **IMDG**

· **Class** 8 Corrosive substances  
 · **Label** 8/6.1

· **IATA**

· **Class** 8 Corrosive substances  
 · **Label** 8 (6.1)

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

· **Environmental hazards:** Product contains environmentally hazardous substances:  
 Glutaraldehyde  
 · **Special marking (ADR):** Symbol (fish and tree)

· **Special precautions for user** Warning: Corrosive substances  
 · **Hazard identification number (Kemler code):** 88  
 · **EMS Number:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** B  
 · **Stowage Code** SW2 Clear of living quarters.

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

· **Transport/Additional information:**

· **DOT**  
 · **Quantity limitations** On passenger aircraft/rail: 1 L  
 On cargo aircraft only: 30 L

· **ADR**  
 · **Excepted quantities (EQ)** Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml

· **IMDG**  
 · **Limited quantities (LQ)** 1L  
 · **Excepted quantities (EQ)** Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

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## 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):**

67-56-1 Methyl Alcohol

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

67-56-1 Methyl Alcohol

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

67-56-1 Methyl Alcohol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

111-30-8 Glutaraldehyde

A4

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS05

GHS06

GHS07

GHS08

· **Signal word** Danger

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

Glutaraldehyde

· **Hazard statements**

Toxic if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

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**Trade name: Glutaraldehyde 70% EM Grade**

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· **Precautionary statements**

- Do not breathe dusts or mists.*
  - Wash thoroughly after handling.*
  - Do not eat, drink or smoke when using this product.*
  - Use only outdoors or in a well-ventilated area.*
  - Contaminated work clothing must not be allowed out of the workplace.*
  - Wear protective gloves/protective clothing/eye protection/face protection.*
  - [In case of inadequate ventilation] wear respiratory protection.*
  - If swallowed: Immediately call a poison center/doctor.*
  - If swallowed: Rinse mouth. Do NOT induce vomiting.*
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
  - 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.*
  - Specific treatment is urgent (see on this label).*
  - If skin irritation or rash occurs: Get medical advice/attention.*
  - If experiencing respiratory symptoms: Call a poison center/doctor.*
  - Wash contaminated clothing before reuse.*
  - 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 preparation / last revision** 05/10/2022 / -

· **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)*
- LC50: Lethal concentration, 50 percent*
- LD50: Lethal dose, 50 percent*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- NIOSH: National Institute for Occupational Safety*
- OSHA: Occupational Safety **Health***
- TLV: Threshold Limit Value**
- PEL: Permissible Exposure Limit**
- REL: Recommended Exposure Limit**
- BEI: Biological Exposure Limit**
- Acute Toxicity - Oral 3: Acute toxicity – Category 3*
- Acute Toxicity - Inhalation 2: Acute toxicity – Category 2*
- Skin Corrosion 1B: Skin corrosion/irritation – Category 1B*
- Eye Damage 1: Serious eye damage/eye irritation – Category 1*
- Sensitization - Respiratory 1: Respiratory sensitisation – Category 1*
- Sensitization - Skin 1: Skin sensitisation – Category 1*
- Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3*

# Safety Data Sheet

## according to WHS Regulations

Printing date 10.05.2022

Revision: 10.05.2022

### 1 Identification

· **Product identifier**

· **Trade name:** Glutaraldehyde 70% EM Grade

· **Article number:** 16350, 16360-SP, 16360, 16365

· **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**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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GHS07

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

*STOT SE 3 H335 May cause respiratory irritation.*

· **Label elements**

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

· **Hazard pictograms**



GHS05

GHS06

GHS07

GHS08

· **Signal word** *Danger*

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

*Glutaraldehyde*

· **Hazard statements**

*Toxic if swallowed.*

*Fatal if inhaled.*

*Causes severe skin burns and eye damage.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

*May cause respiratory irritation.*

· **Precautionary statements**

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

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

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

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

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

*Wear respiratory protection.*

*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*

*IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

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

*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.*

*Specific treatment is urgent (see on this label).*

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

*If experiencing respiratory symptoms: Call a POISON CENTER/doctor.*

*Wash contaminated clothing before reuse.*

*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.

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## Safety Data Sheet according to WHS Regulations

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Revision: 10.05.2022

Trade name: **Glutaraldehyde 70% EM Grade**

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· **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

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

- **Dangerous components:**

111-30-8	Glutaraldehyde	>50-≤100%
67-56-1	Methyl Alcohol	≤2.5%

- **SVHC**

111-30-8	Glutaraldehyde
67-56-1	Methyl Alcohol

- **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:**
  - Immediately remove any clothing soiled by the product.
  - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - Remove breathing equipment only after contaminated clothing have been completely removed.
  - In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
  - Supply fresh air or oxygen; call for doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
  - Do not induce vomiting; call for medical help immediately.
  - Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **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**  
Wear protective equipment. Keep unprotected persons away.

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## Safety Data Sheet according to WHS Regulations

Printing date 10.05.2022

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**Trade name: Glutaraldehyde 70% EM Grade**

(Contd. of page 3)

- **Environmental precautions:**  
*Inform respective authorities in case of seepage into water course or sewage system.  
 Dilute with plenty of water.  
 Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Use neutralising agent.  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.*
- **Reference to other sections**  
*See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.*

### 7 Handling and Storage

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

### 8 Exposure controls and personal protection

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

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

#### 111-30-8 Glutaraldehyde

WES	Peak limitation: 0.41 mg/m <sup>3</sup> , 0.1 ppm
	Sen

#### 67-56-1 Methyl Alcohol

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

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

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## Safety Data Sheet according to WHS Regulations

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**Trade name: Glutaraldehyde 70% EM Grade**

(Contd. of page 4)

*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:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Transparent
· <b>Odour:</b>	Fruit-like
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/freezing point:</b>	-21 °C
· <b>Initial boiling point and boiling range:</b>	100.5 °C

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

· **Lower:** Not determined.

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Trade name: **Glutaraldehyde 70% EM Grade**

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<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	0.3 hPa
· <b>Density at 20 °C:</b>	1.129 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.5 %
<b>Water:</b>	29.5 %
<b>VOC (EC)</b>	0.50 %
<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**

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

#### 111-30-8 Glutaraldehyde

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2,560 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation**  
Sensitisation possible through inhalation.  
Sensitisation possible through skin contact.

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## Safety Data Sheet according to WHS Regulations

Printing date 10.05.2022

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**Trade name: Glutaraldehyde 70% EM Grade**

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· **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:

Toxic

Harmful

Corrosive

Irritant

Very toxic

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 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.

· **Ecotoxicological effects:**

· **Remark:**

Very toxic for fish

Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Toxic for aquatic organisms

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

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

· **Uncleaned packaging:**

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

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

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# Safety Data Sheet

according to WHS Regulations








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Trade name: **Glutaraldehyde 70% EM Grade**

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## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>	UN3265
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADG</b></li> </ul>	<div style="display: flex; justify-content: space-around; align-items: center;">    </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8+6.1
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8/6.1
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8 (6.1)
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>	II
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Special marking (ADG):</b></li> </ul>	Product contains environmentally hazardous substances: Glutaraldehyde Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Segregation groups</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> </ul>	Warning: Corrosive substances. 88 F-A,S-B Acids B SW2 Clear of living quarters.
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	Not applicable.

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# Safety Data Sheet

according to WHS Regulations

Printing date 10.05.2022

Revision: 10.05.2022

Trade name: **Glutaraldehyde 70% EM Grade**

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· **Transport/Additional information:**

· **ADG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

E

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC,  
N.O.S. (GLUTARALDEHYDE), 8 (6.1), II,  
ENVIRONMENTALLY HAZARDOUS

## 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**

111-30-8	Glutaraldehyde	S2, S5, S6
67-56-1	Methyl Alcohol	S5, S6

· **Australia: Priority Existing Chemicals**

111-30-8	Glutaraldehyde
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· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS05

GHS06

GHS07

GHS08

· **Signal word** *Danger*

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

Glutaraldehyde

· **Hazard statements**

Toxic if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

· **Precautionary statements**

Do not breathe dusts or mists.

Wash thoroughly after handling.

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## Safety Data Sheet according to WHS Regulations

Printing date 10.05.2022

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**Trade name: Glutaraldehyde 70% EM Grade**

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

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

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

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

*Wear respiratory protection.*

*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*

*IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

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

*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.*

*Specific treatment is urgent (see on this label).*

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

*If experiencing respiratory symptoms: Call a POISON CENTER/doctor.*

*Wash contaminated clothing before reuse.*

*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.

· **Seveso category**

*H2 ACUTE TOXIC*

*E1 Hazardous to the Aquatic Environment*

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **National regulations:**

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

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

111-30-8	Glutaraldehyde
67-56-1	Methyl Alcohol

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

### 16 Other information

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

· **Contact:**

· **Abbreviations and acronyms:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

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

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 3: Acute toxicity – Category 3*

*Acute Tox. 2: Acute toxicity – Category 2*

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**Safety Data Sheet**  
according to WHS Regulations

Printing date 10.05.2022

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**Trade name: Glutaraldehyde 70% EM Grade**

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*Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Resp. Sens. 1: Respiratory sensitisation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/10/2022

Reviewed on 05/10/2022

### 1 Identification

- **Product identifier**
- **Trade name:** Glutaraldehyde 70% EM Grade
- **Article number:** 16350, 16360-SP, 16360, 16365
- **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**



GHS06 Skull and crossbones

Acute Toxicity (Oral) - Category 3

H301 Toxic if swallowed.

Acute Toxicity (Inhalation) - Category 2

H330 Fatal if inhaled.



GHS08 Health hazard

Respiratory Sensitizer - Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 Corrosion

Skin Corrosion - Category 1B

H314 Causes severe skin burns and eye damage.

Serious Eye Damage - Category 1

H318 Causes serious eye damage.



GHS07

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure -  
Category 3

H335 May cause respiratory irritation.

- **Label elements**

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

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/10/2022

Reviewed on 05/10/2022

Trade name: **Glutaraldehyde 70% EM Grade**

(Contd. of page 1)

· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labeling:***Glutaraldehyde*· **Hazard statements***Toxic if swallowed.**Fatal if inhaled.**Causes severe skin burns and eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**May cause respiratory irritation.*· **Precautionary statements***Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**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.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If experiencing respiratory symptoms: Call a poison center/doctor.**Wash contaminated clothing before reuse.**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)**· **HMIS-ratings (scale 0 - 4)**

CA

(Contd. on page 3)



# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/10/2022

Reviewed on 05/10/2022

Trade name: **Glutaraldehyde 70% EM Grade**

(Contd. of page 2)

### 3 Composition/Information on ingredients

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

- **Dangerous components:**

111-30-8	Glutaraldehyde	45-70% w/w *
67-56-1	Methyl Alcohol	0.1-1% w/w *

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

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
Remove breathing apparatus only after contaminated clothing have been completely removed.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**  
Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**  
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.  
· **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **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**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/10/2022

Reviewed on 05/10/2022

**Trade name: Glutaraldehyde 70% EM Grade**

(Contd. of page 3)

- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### 7 Handling and storage

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

### 8 Exposure controls/ Personal protection

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

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

#### 111-30-8 Glutaraldehyde

EL Ceiling: 0.05 ppm  
S(D), S(R)

EV Ceiling: 0.05 ppm  
activated and inactivated

#### 67-56-1 Methyl Alcohol

EL STEL: 250 ppm  
TWA: 200 ppm  
Skin

EV STEL: 325 mg/m<sup>3</sup>, 250 ppm  
TWA: 260 mg/m<sup>3</sup>, 200 ppm  
Skin

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

(Contd. on page 5)

## Safety Data Sheet according to HPR, Schedule 1

Printing date 05/10/2022

Reviewed on 05/10/2022

Trade name: **Glutaraldehyde 70% EM Grade**

(Contd. of page 4)

· **Breathing equipment:**

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

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Transparent
<b>Odor:</b>	Fruit-like
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	-21 °C
<b>Boiling point/Boiling range:</b>	100.5 °C

· **Flash point:** Not applicable.

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

· **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>	Not determined.
<b>Upper:</b>	Not determined.

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# Safety Data Sheet

## according to HPR, Schedule 1

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Trade name: **Glutaraldehyde 70% EM Grade**

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· Vapor pressure at 20 °C:	0.3 hPa
· Density at 20 °C:	1.129 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.5 %
Water:	29.5 %
· Solids content:	0.0 %
· Other information	No further relevant information available.

### 10 Stability and reactivity

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

### 11 Toxicological information

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

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>111-30-8 Glutaraldehyde</b>		
Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2,560 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:**  
Sensitization possible through inhalation.  
Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Toxic

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## Safety Data Sheet according to HPR, Schedule 1

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*Harmful**Corrosive**Irritant**Very toxic*

*Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.*

· **Carcinogenic categories**

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

*None of the ingredients is listed.*

· **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.*

· **Ecotoxicological effects:**

· **Remark:**

*Very toxic for fish*

*Toxic for fish*

· **Additional ecological information:**

· **General notes:**

*Water hazard class 3 (Self-assessment): extremely hazardous for water*

*Do not allow product to reach ground water, water course or sewage system, even in small quantities.*

*Must not reach bodies of water or drainage ditch undiluted or unneutralized.*

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

*Also poisonous for fish and plankton in water bodies.*

*Very toxic for aquatic organisms*

*Toxic for aquatic organisms*

· **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 packaging:**

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

· **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

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## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT/TDG, ADR, IMDG, IATA</b></li> </ul>	UN3265
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT/TDG</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p>Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde)            3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT/TDG (Transport dangerous goods):</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">    </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT/TDG, ADR, IMDG, IATA</b></li> </ul>	II
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Special marking (ADR):</b></li> </ul>	<p>Product contains environmentally hazardous substances: Glutaraldehyde            Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> </ul>	<p>Warning: Corrosive substances            88            F-A,S-B</p>

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## according to HPR, Schedule 1

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Trade name: **Glutaraldehyde 70% EM Grade**

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· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT/TDG</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: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

### 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):**

67-56-1 Methyl Alcohol

· **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%)**

111-30-8 Glutaraldehyde

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

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Trade name: **Glutaraldehyde 70% EM Grade**

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· **Hazard pictograms**

GHS05   GHS06   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***Glutaraldehyde*· **Hazard statements***Toxic if swallowed.**Fatal if inhaled.**Causes severe skin burns and eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**May cause respiratory irritation.*· **Precautionary statements***Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**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.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If experiencing respiratory symptoms: Call a poison center/doctor.**Wash contaminated clothing before reuse.**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** 05/10/2022 / -· **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*

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative*

CA

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

Printing date 10.05.2022

Revision: 10.05.2022

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

- **Product identifier**
- **Trade name:** Glutaraldehyde 70% EM Grade
- **Article number:** 16350, 16360-SP, 16360, 16365
- **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)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazards identification

- **Classification of the substance or mixture**



skull and crossbones

Acute Tox. 3      H301 Toxic if swallowed.

Acute Tox. 2      H330 Fatal if inhaled.



health hazard

Resp. Sens. 1      H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.

Eye Dam. 1      H318 Causes serious eye damage.



environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



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

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STOT SE 3      H335 May cause respiratory irritation.

Acute Tox. 5      H313 May be harmful in contact with skin.

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

GHS05    GHS06    GHS08    GHS09

· **Signal word** *Danger*· **Hazard-determining components of labelling:***Glutaraldehyde*· **Hazard statements***Toxic if swallowed.**May be harmful in contact with skin.**Fatal if inhaled.**Causes severe skin burns and eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**May cause respiratory irritation.**Very toxic to aquatic life.**Toxic to aquatic life with long lasting effects.*· **Precautionary statements***IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

111-30-8	Glutaraldehyde Acute Tox. 3, H301;  Acute Tox. 2, H330;  Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Aquatic Chronic 2, H411;  Skin Sens. 1A, H317; STOT SE 3, H335;  Flam. Liq. 4, H227;  Acute Tox. 5, H313	>50-≤100%
67-56-1	Methyl Alcohol Flam. Liq. 2, H225;  STOT SE 1, H370;  Acute Tox. 4, H302;  Acute Tox. 4, H312;  Acute Tox. 4, H332	≤2.5%

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· **SVHC**

111-30-8 | Glutaraldehyde

67-56-1 | Methyl Alcohol

· **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:***Immediately remove any clothing soiled by the product.**Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.**Remove breathing equipment only after contaminated clothing have been completely removed.**In case of irregular breathing or respiratory arrest provide artificial respiration.*· **After inhalation:***Supply fresh air or oxygen; call for doctor.**In case of unconsciousness place patient stably in side position for transportation.*· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*· **After swallowing:***Do not induce vomiting; call for medical help immediately.**Drink plenty of water and provide fresh air. Call for a doctor immediately.*· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*· **Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

## 5 Firefighting measures

· **Extinguishing media**· **Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.*· **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***Wear protective equipment. Keep unprotected persons away.*· **Environmental precautions:***Inform respective authorities in case of seepage into water course or sewage system.**Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.*· **Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.*· **Reference to other sections***See Section 7 for information on safe handling.*

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

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

## 8 Exposure controls/personal protection

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

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

**111-30-8 Glutaraldehyde**

OELV Ceiling limit: 0.05 ppm

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



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

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· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**

Tightly sealed goggles

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Transparent
· <b>Odour:</b>	Fruit-like
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.· **Change in condition**

· <b>Melting point/freezing point:</b>	-21 °C
· <b>Initial boiling point and boiling range:</b>	100.5 °C

· **Flash point:** Not applicable.· **Flammability (solid, gas):** Not applicable.· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Product is not selfigniting.· **Explosive properties:** Product does not present an explosion hazard.· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure at 20 °C:** 0.3 hPa

· <b>Density at 20 °C:</b>	1.129 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:**

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

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· **Solvent content:**

<b>Organic solvents:</b>	0.5 %
<b>Water:</b>	29.5 %
<b>VOC (EC)</b>	0.50 %

<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**

· <b>LD/LC50 values relevant for classification:</b>
--

<b>111-30-8 Glutaraldehyde</b>		
--------------------------------	--	--

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2,560 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation**  
Sensitisation possible through inhalation.  
Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Toxic  
Harmful  
Corrosive  
Irritant  
Very toxic  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

## 12 Ecological information

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

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- **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.
- **Ecotoxicological effects:**
- **Remark:**  
Very toxic for fish  
Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

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

### 14 Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                | UN3265  |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS<br>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde)  |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>                           | <div style="display: flex; justify-content: space-around; align-items: center;">    </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>  | 8 Corrosive substances.   |

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· <b>Label</b>	8+6.1
· <b>IMDG</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8/6.1
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8 (6.1)
· <b>Packing group</b>	II
· <b>ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: Glutaraldehyde
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Corrosive substances.
· <b>Hazard identification number (Kemler code):</b>	88
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

IL

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### 15 Regulatory information

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



GHS05   GHS06   GHS08   GHS09

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*Glutaraldehyde*
- **Hazard statements**  
*Toxic if swallowed.*  
*May be harmful in contact with skin.*  
*Fatal if inhaled.*  
*Causes severe skin burns and eye damage.*  
*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*  
*May cause an allergic skin reaction.*  
*May cause respiratory irritation.*  
*Very toxic to aquatic life.*  
*Toxic to aquatic life with long lasting effects.*
- **Precautionary statements**  
*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*  
*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*  
*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
*Specific treatment is urgent (see on this label).*  
*Take off contaminated clothing and wash it before reuse.*  
*Store locked up.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **Seveso category**  
*H2 ACUTE TOXIC*  
*E1 Hazardous to the Aquatic Environment*
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *50 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *200 t*
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

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

111-30-8	Glutaraldehyde
67-56-1	Methyl Alcohol

- **Chemical safety assessment:** *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.*

### · **Relevant phrases**

H225 Highly flammable liquid and vapour.  
 H227 Combustible liquid.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H313 May be harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H330 Fatal if inhaled.  
 H332 Harmful if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H370 Causes damage to organs.  
 H400 Very toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.

### · **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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 2: Flammable liquids – Category 2  
 Flam. Liq. 4: Flammable liquids – Category 4  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Acute Tox. 5: Acute toxicity – Category 5  
 Acute Tox. 2: Acute toxicity – Category 2  
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Resp. Sens. 1: Respiratory sensitisation – Category 1  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1A: Skin sensitisation – Category 1A  
 STOT SE 1: Specific target organ toxicity (single exposure) – Category 1  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

IL

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

- **1.1 Product identifier**
- **Trade name:** Glutaraldehyde 70% EM Grade
- **Article number:** 16350, 16360-SP, 16360, 16365
- **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**



skull and crossbones

Acute Tox. 3      H301 Toxic if swallowed.  
Acute Tox. 2      H330 Fatal if inhaled.



health hazard

Resp. Sens. 1      H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.  
Eye Dam. 1      H318 Causes serious eye damage.



environment

Aquatic Acute 1      H400 Very toxic to aquatic life.  
Aquatic Chronic 2      H411 Toxic to aquatic life with long lasting effects.



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

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STOT SE 3      H335 May cause respiratory irritation.

· **2.2 Label elements**· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

GHS05   GHS06   GHS08   GHS09

· **Signal word** *Danger*· **Hazard-determining components of labelling:***Glutaraldehyde*· **Hazard statements***H301 Toxic if swallowed.**H330 Fatal if inhaled.**H314 Causes severe skin burns and eye damage.**H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.**H317 May cause an allergic skin reaction.**H335 May cause respiratory irritation.**H400 Very toxic to aquatic life.**H411 Toxic to aquatic life with long lasting effects.*· **Precautionary statements***P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P320 Specific treatment is urgent (see on this label).**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

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

CAS: 111-30-8 EINECS: 203-856-5	Glutaraldehyde ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	Methyl Alcohol ⚠ Flam. Liq. 2, H225; ⚠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2.5%

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· **SVHC**

111-30-8 | Glutaraldehyde

67-56-1 | Methyl Alcohol

· **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:***Immediately remove any clothing soiled by the product.**Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.**Remove breathing equipment only after contaminated clothing have been completely removed.**In case of irregular breathing or respiratory arrest provide artificial respiration.*· **After inhalation:***Supply fresh air or oxygen; call for doctor.**In case of unconsciousness place patient stably in side position for transportation.*· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*· **After swallowing:***Do not induce vomiting; call for medical help immediately.**Drink plenty of water and provide fresh air. Call for a doctor immediately.*· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*· **4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**· **Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.*· **5.2 Special hazards arising from the substance or mixture** *No further relevant information available.*· **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***Wear protective equipment. Keep unprotected persons away.*· **6.2 Environmental precautions:***Inform respective authorities in case of seepage into water course or sewage system.**Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.*· **6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.*· **6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.*

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See Section 13 for disposal information.

## SECTION 7: Handling and storage

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

## SECTION 8: Exposure controls/personal protection

- **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:**

### 111-30-8 Glutaraldehyde

WEL	Short-term value: 0.2 mg/m <sup>3</sup> , 0.05 ppm
	Long-term value: 0.2 mg/m <sup>3</sup> , 0.05 ppm
	Sen

### 67-56-1 Methyl Alcohol

WEL	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 266 mg/m <sup>3</sup> , 200 ppm
	Sk

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Transparent
· <b>Odour:</b>	Fruit-like
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/freezing point:</b>	-21 °C
· <b>Initial boiling point and boiling range:</b>	100.5 °C

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure at 20 °C:** 0.3 hPa

· <b>Density at 20 °C:</b>	1.129 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:**

Fully miscible.

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

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· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.5 %
<b>Water:</b>	29.5 %
<b>VOC (EC)</b>	0.50 %
· <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**  
Toxic if swallowed.  
Fatal if inhaled.

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

#### 111-30-8 Glutaraldehyde

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2,560 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **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 respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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· **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:**  
Very toxic for fish  
Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

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

### SECTION 14: Transport information

- |                                       |   |
|---------------------------------------|---|
| · <b>14.1 UN-Number</b>               |   |
| · <b>ADR, IMDG, IATA</b>              | UN3265  |
| · <b>14.2 UN proper shipping name</b> |   |
| · <b>ADR</b>                          | 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS |
| · <b>IMDG, IATA</b>                   | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde)                                 |

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· **14.3 Transport hazard class(es)**· **ADR**

· **Class** 8 Corrosive substances.  
· **Label** 8+6.1

· **IMDG**

· **Class** 8 Corrosive substances.  
· **Label** 8/6.1

· **IATA**

· **Class** 8 Corrosive substances.  
· **Label** 8 (6.1)

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

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances:  
Glutaraldehyde

· **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user** Warning: Corrosive substances.

· **Hazard identification number (Kemler code):** 88

· **EMS Number:** F-A,S-B

· **Segregation groups** Acids

· **Stowage Category** B

· **Stowage Code** SW2 Clear of living quarters.

· **14.7 Transport in bulk according to Annex II of  
Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**

· **Limited quantities (LQ)** 1L

· **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category** 2

· **Tunnel restriction code** E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**  
H2 ACUTE TOXIC  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

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

111-30-8	Glutaraldehyde
67-56-1	Methyl Alcohol

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

### SECTION 16: Other information

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

- **Relevant phrases**  
H225 Highly flammable liquid and vapour.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H330 Fatal if inhaled.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H370 Causes damage to organs.  
H400 Very toxic to aquatic life.  
H411 Toxic to aquatic life with long lasting effects.
- **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

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*GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Flammable liquids – Category 2**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 2: Acute toxicity – Category 2**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Resp. Sens. 1: Respiratory sensitisation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Skin Sens. 1A: Skin sensitisation – Category 1A**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

GB

# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.10

在 2022.05.10 审核

### 1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: **Glutaraldehyde 70% EM Grade**
- 商品编号: 16350, 16360-SP, 16360, 16365
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 物质或混合物的用途 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 危险性概述

#### · 紧急情况概述:

透明的, 液体, 吞咽会中毒。 皮肤接触可能有害。 吸入致命。 造成严重皮肤灼伤和眼损伤。  
吸入可能导致过敏或哮喘病症状或呼吸困难。 可能导致皮肤过敏反应。 可引起呼吸道刺激。  
对水生生物毒性极大。对水生生物有毒并具有长期持续影响。

#### · GHS危险性类别



骷髅和交叉骨

急性毒性(经口) 第3类

H301 吞咽会中毒

急性毒性(吸入) 第2类

H330 吸入致命



健康危害

敏化(呼吸) 第1类

H334 吸入可能导致过敏或哮喘病症状或呼吸困难



腐蚀

皮肤腐蚀/刺激 第1B类

H314 造成严重皮肤灼伤和眼损伤

严重眼睛损伤/眼睛刺激性 第1类

H318 造成严重眼损伤



环境

对水环境的危害(急性) 第1类

H400 对水生生物毒性极大

对水环境的危害(慢性) 第2类

H411 对水生生物有毒并具有长期持续影响

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敏化(皮肤) 第1类 H317 可能导致皮肤过敏反应  
 特定靶器官系统毒性(单次接触) 第3类 H335 可引起呼吸道刺激  
 急性毒性(经皮肤) 第5类 H313 皮肤接触可能有害

## · 标签要素

· GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

## · 象形图



GHS05 GHS06 GHS08 GHS09

## · 警示词 危险

## · 标签上辨别危险的成份:

1,5-戊二醛 (&gt;50-≤100 %)

## · 危险性说明

吞咽会中毒  
 皮肤接触可能有害  
 吸入致命  
 造成严重皮肤灼伤和眼损伤  
 吸入可能导致过敏或哮喘病症状或呼吸困难  
 可能导致皮肤过敏反应  
 可引起呼吸道刺激  
 对水生生物毒性极大  
 对水生生物有毒并具有长期持续影响

## · 防范说明

## · 事故响应

如误吞咽:立即呼叫急救中心/医生  
 如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴  
 如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗  
 紧急具体治疗(见本标签上的)  
 脱掉沾染的衣服,清洗后方可重新使用

## · 安全储存

存放处须加锁

## · 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

## · 其他有害性

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

## 3 成分/组成信息

## · 混合物

· 描述: 由以下含有无害添加剂的成分组成的混合物

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**危险的成分:**

111-30-8	1,5-戊二醛 Glutaraldehyde <ul style="list-style-type: none"> <li>◆ 急性毒性(经口) 第3类, H301; 急性毒性(吸入) 第2类, H330; ◆ 敏化(呼吸) 第1类, H334; ◆ 皮肤腐蚀/刺激 第1B类, H314; ◆ 对水环境的危害(急性) 第1类, H400; 对水环境的危害(慢性) 第2类, H411; ◆ 敏化(皮肤) 第1A类, H317; 特定靶器官系统毒性(单次接触) 第3类, H335; 易燃液体 第4类, H227; 急性毒性(经皮肤) 第5类, H313</li> </ul>	>50-≤100%
67-56-1	木精 Methyl Alcohol <ul style="list-style-type: none"> <li>◆ 易燃液体 第2类, H225; ◆ 特定靶器官系统毒性(单次接触) 第1类, H370; ◆ 急性毒性(经口) 第4类, H302; 急性毒性(经皮肤) 第4类, H312; 急性毒性(吸入) 第4类, H332</li> </ul>	≤2.5%

**4 急救措施**

## · 应急措施要领

## · 总说明:

马上脱下染有该产品的衣服。

中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察。

只在彻底地脱去了已被污染的衣服之后才能移走呼吸仪器。

万一出现了不规则的呼吸或呼吸的阻碍,请为病人提供人工呼吸。

## · 吸入:

供给新鲜空气或氧气;叫医生。

万一病人不清醒时,请让病人侧躺以便移动。

## · 皮肤接触: 马上用水和肥皂进行彻底的冲洗。

## · 眼睛接触: 张开眼睛在流水下冲洗数分钟。然后谘询医生。

## · 食入:

切勿引发呕吐;请马上寻求医疗的协助。

喝大量的清水和提供新鲜的空气。马上召唤医生。

## · 给医生的资料:

· 最重要的急慢性症状及其影响 无相关详细资料。

· 需要及时的医疗处理及特别处理的症状 无相关详细资料。

**5 消防措施**

## · 灭火方法

· 灭火的方法和灭火剂: 使用适合四周环境的灭火措施。

· 特别危险性 无相关详细资料。

## · 特殊灭火方法

· 消防人员特殊的防护装备: 口腔呼吸保护装置。

**6 泄漏应急处理**

· 保护措施 带上保护仪器。让未受到保护的人们远离。

## · 环境保护措施:

如果渗入了水源或污水系统,请通知有关当局。

用大量的水进行稀释。

切勿让其进入下水道/水面或地下水。

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- **密封及净化方法和材料:**  
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).  
使用中和剂.  
根据第 13 条款弃置受污染物.  
确保有足够的通风装置.
- **参照其他部分**  
有关安全处理的资料请参阅第 7 节.  
有关个人防护装备的资料请参阅第 8 节.  
有关弃置的资料请参阅第 13 节.

## 7 操作处置与储存

- **操作处置**
- **储存**  
确保工作间有良好的通风/排气装置.  
小心打开及处理贮藏器.  
防止气溶胶的形成.
- **有关火灾及防止爆炸的资料:** 提供呼吸保护装置.
- **混合危险性等安全储存条件**
- **储存:**  
· **储存库和容器须要达到的要求:** 没有特别的要求.  
· **有关使用一个普通的储存设施来储存的资料:** 不需要.  
· **有关储存条件的更多资料:** 将容器密封.  
· **具体的最终用户** 无相关详细资料.

## 8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项.
- **控制变数**

· 在工作场需要监控的限值成分	
111-30-8 1,5-戊二醛	
PEL (TW)	PC-TWA: 0.82 mg/m <sup>3</sup> , 0.2 ppm
67-56-1 木精	
OEL (CN)	PC-STEL: 50 mg/m <sup>3</sup> PC-TWA: 25 mg/m <sup>3</sup> 皮
PEL (TW)	PC-TWA: 262 mg/m <sup>3</sup> , 200 ppm

- **额外的资料:** 制作期间有效的清单将作为基础来使用.
- **泄漏控制**
- **个人防护设备:**
- **一般保护和卫生措施:**  
远离食品、饮料和饲料.  
立即除去所有的不洁的和被污染的衣服.  
在休息之前和工作完毕后请清洗双手.  
分开储存保护性衣服.  
避免和眼睛接触.  
避免和眼睛及皮肤接触.

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## ·呼吸系统防护:

如果曾短暂接触或在低污染的情况下

请使用呼吸过滤装置

如果曾深入或较长时间接触, 请使用独立的呼吸保护装置.

## ·手防护:



保护手套

手套的物料必须是不渗透性的, 且能抵抗该产品/物质/添加剂.

基于缺乏测试, 对于产品/制剂/化学混合物, 并不会提供手套材料的建议

选择手套材料时, 请注意材料的渗透时间, 渗滤率和降解参数

## ·手套材料

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

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

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

## ·眼睛防护:



密封的护目镜

## 9 理化特性

## ·有关基本物理及化学特性的信息

## ·一般说明

## ·外观:

形状: 液体

颜色: 透明的

·气味: 类似水果

·嗅觉阈限 未决定.

·pH值: 未决定.

## ·条件的更改

熔点: -21 °C

沸点/初沸点和沸程: 100.5 °C

·闪点: 不适用的

·可燃性(固体、气体): 不适用的

·分解温度: 未决定.

·自燃温度: 该产品是不自燃的

·爆炸的危险性: 该产品并没有爆炸的危险

## ·爆炸极限:

较低: 未决定.

较高: 未决定.

·蒸气压 在 20 °C: 0.3 hPa

·密度 在 20 °C: 1.129 g/cm<sup>3</sup>

·相对密度 未决定.

·蒸气密度 未决定.

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· 蒸发速率	未决定.
· 溶解性 水:	完全可拌和的
· n-辛醇/水分配系数:	未决定.
· 黏性: 动态: 运动学的:	未决定. 未决定.
· 溶剂成份: 有机溶剂: 水:	0.5 % 29.5 %
· 固体成份:	0.0 %
· 其他信息	无相关详细资料。

## 10 稳定性和反应性

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

## 11 毒理学信息

- 对毒性学影响的信息
- 急性毒性:

· 与分类相关的 LD/ LC50 值:		
111-30-8 1,5-戊二醛		
口腔	LD50	134 mg/kg (rat)
皮肤	LD50	2,560 mg/kg (rabbit)

- 主要的刺激性影响:
- 皮肤: 在皮肤和粘膜上造成强烈的腐蚀性影响。
- 在眼睛上面:  
强烈的腐蚀性影响。  
强烈的刺激性和造成严重伤害眼睛的危险。
- 致敏作用:  
通过吸入可能造成敏化作用。  
通过皮肤接触可能造成敏化作用。
- 更多毒物的资料:  
根据有关配制的一般欧盟分类指南的计算方法(刊印在最新版本),该产品显示以下的危险:  
毒性的  
有害的  
腐蚀性的  
刺激性的  
非常毒性的

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吞咽该产品除了导致口部和喉咙出现强烈的腐蚀性现象之外,还有对食道和胃部造成穿孔的危险。

## 12 生态学信息

- 生态毒性
- 水生毒性: 无相关详细资料。
- 持久性和降解性 无相关详细资料。
- 环境系统习性:
- 潜在的生物累积性 无相关详细资料。
- 土壤内移动性 无相关详细资料。
- 生态毒性的影响:
- 备注:
  - 对鱼类有剧毒
  - 对鱼类有毒
- 额外的生态学资料:
- 总括注解:
  - 水危害级别 3 (德国规例) (通过名单进行自我评估): 对水是极其危害的
  - 即使是小量., 不要让该产品接触地下水、水道或污水系统.
  - 不要让未被稀释或未被中和的产品接触下水道或排水沟渠.
  - 即使是极其小量的产品渗入地下也会对饮用水造成危险.
  - 对水体中的鱼和浮游生物也有毒害.
  - 对水中的有机物有剧毒.
  - 对水中的有机物有毒.
- PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果
- PBT(残留性、生物浓缩性、毒性物质) 不适用的
- vPvB(高残留性、高生物浓缩性物质): 不适用的
- 其他副作用 无相关详细资料。

## 13 废弃处置

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

## 14 运输信息

- |                   |   |
|-------------------|---|
| · 联合国危险货物编号(UN号)  |   |
| · ADR, IMDG, IATA | UN3265  |
| · UN适当装船名         |   |
| · ADR             | 3265 有机酸性腐蚀性液体, 未 (1,5-戊二醛),<br>ù[环境有害                        |
| · IMDG, IATA      | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde) |

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## · 运输危险等级

## · ADR

· 级别  
· 标签8 腐蚀性物质  
8+6.1

## · IMDG

· Class  
· Label8 腐蚀性物质  
8/6.1

## · IATA

· Class  
· Label8 腐蚀性物质  
8 (6.1)

## · 包装组别

## · ADR, IMDG, IATA

II

## · 环境危害

## · 特别标记 (ADR):

该产品含有对环境有害的原料: 1,5-戊二醛  
象征符号 (鱼和树)

## · 用户特别预防措施

## · 危险编码:

## · EMS 号码:

## · Segregation groups

## · Stowage Category

## · Stowage Code

警告: 腐蚀性物质

88

F-A,S-B

Acids

B

SW2 Clear of living quarters.

· MARPOL73/78(针对船舶引起的海洋污染预防协议)  
附件书2及根据IBC Code(国际装船货物编码)  
的大量运送

不适用的

## · 运输/额外的资料:

## · ADR

## · Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

## · IMDG

## · Limited quantities (LQ)

## · Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

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化学品中文(英文)名称, 化学品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 8 页继续)

· UN "标准规定": UN 3265 有机酸性腐蚀性液体, 未 (1,5-戊二醛), 8 (6.1), II, 对环境有害

## 15 法规信息

· 对相应纯物质或者混合物的安全、保健及环境法规/法律 无相关详细资料。

· 危险化学品安全管理条例

· 危险化学品目录

111-30-8	1,5-戊二醛
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67-56-1	木精
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· 化学品首次进口及有毒化学品进出口环境管理规定

· 新化学物质环境管理办法

· 中国现有化学物质名录

列出所有成分

· GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

· 象形图



GHS05 GHS06 GHS08 GHS09

· 警示词 危险

· 标签上辨别危险的成份:

1,5-戊二醛 (>50-≤100 %)

· 危险性说明

吞咽会中毒

皮肤接触可能有害

吸入致命

造成严重皮肤灼伤和眼损伤

吸入可能导致过敏或哮喘病症状或呼吸困难

可能导致皮肤过敏反应

可引起呼吸道刺激

对水生生物毒性极大

对水生生物有毒并具有长期持续影响

· 防范说明

· 事故响应

如误吞咽:立即呼叫急救中心/医生

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

紧急具体治疗(见本标签上的)

脱掉沾染的衣服,清洗后方可重新使用

· 安全储存

存放处须加锁

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 化学物质安全性评价: 尚未进行化学物质安全性评价

CN

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.10

在 2022.05.10 审核

化学品中文(英文)名称, 化学品俗名或商品名: Glutaraldehyde 70% EM Grade

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### 16 其他信息

该资料是基于我们目前的知识

然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系.

· 联络:

· 缩写:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

易燃液体 第2类: Flammable liquids – Category 2

易燃液体 第4类: Flammable liquids – Category 4

急性毒性(径口) 第3类: Acute toxicity – Category 3

急性毒性(径口) 第4类: Acute toxicity – Category 4

急性毒性(径皮肤) 第5类: Acute toxicity – Category 5

急性毒性(吸入) 第2类: Acute toxicity – Category 2

皮肤腐蚀/刺激 第1B类: Skin corrosion/irritation – Category 1B

严重眼睛损伤/眼睛刺激性 第1类: Serious eye damage/eye irritation – Category 1

敏化(呼吸) 第1类: Respiratory sensitisation – Category 1

敏化(皮肤) 第1类: Skin sensitisation – Category 1

敏化(皮肤) 第1A类: Skin sensitisation – Category 1A

特定靶器官系统毒性(单次接触) 第1类: Specific target organ toxicity (single exposure) – Category 1

特定靶器官系统毒性(单次接触) 第3类: Specific target organ toxicity (single exposure) – Category 3

对水环境的危害(急性) 第1类: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

对水环境的危害(慢性) 第2类: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

CN

# Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 10.05.2022

Revision: 10.05.2022

## PUNKT 1: Identifikation af stoffet/blandingen og af selskabet/virksomheden

- **1.1 Produktidentifikator**
- **Handelsnavn:** Glutaraldehyde 70% EM Grade
- **Artikelnummer:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **1.2 Relevante identificerede anvendelser for stoffet eller blandingen samt anvendelser, der frarådes**  
Der står ingen yderligere, relevante informationer til rådighed.
- **Stoffets/præparatets anvendelse** Laboratoriekemikalier
- **1.3 Nærmere oplysninger om leverandøren af sikkerhedsdatabladet**
- **Producent/leverandør**  
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)
- **For yderligere information:** Product safety department
- **1.4 Nødtelefon:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## PUNKT 2: Fareidentifikation

- **2.1 Klassificering af stoffet eller blandingen**
- **Klassificering i henhold til forordning (EF) nr. 1272/2008**



GHS06 dødningshoved og korslagte knogler

Acute Tox. 3 H301 Giftig ved indtagelse.

Acute Tox. 2 H330 Livsfarlig ved indånding.



GHS08 sundhedsfarer

Resp. Sens. 1 H334 Kan forårsage allergi- eller astmasymptomer eller åndedrætsbesvær ved indånding.



GHS05 ætsning

Skin Corr. 1B H314 Forårsager svære ætsninger af huden og øjenskader.

Eye Dam. 1 H318 Forårsager alvorlig øjenskade.



GHS09 miljø

Aquatic Acute 1 H400 Meget giftig for vandlevende organismer.

Aquatic Chronic 2 H411 Giftig for vandlevende organismer, med langvarige virkninger.



GHS07

(Fortsættes på side 2)



# Sikkerhedsdatablad

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**Handelsnavn: Glutaraldehyde 70% EM Grade**

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Skin Sens. 1 H317 Kan forårsage allergisk hudreaktion.  
 STOT SE 3 H335 Kan forårsage irritation af luftvejene.

## 2.2 Mærkningselementer

- **Mærkning i henhold til forordning (EF) nr. 1272/2008**  
 Dette produkt er klassificeret og mærket iht. CLP-forordningen.
- **Farepiktogrammer**



GHS05 GHS06 GHS08 GHS09

## Signalord Fare

### Farebestemmende komponent(er) til etikettering:

glutaral

### Faresætninger

- H301 Giftig ved indtagelse.  
 H330 Livsfarlig ved indånding.  
 H314 Forårsager svære ætsninger af huden og øjenskader.  
 H334 Kan forårsage allergi- eller astmasymptomer eller åndedrætsbesvær ved indånding.  
 H317 Kan forårsage allergisk hudreaktion.  
 H335 Kan forårsage irritation af luftvejene.  
 H400 Meget giftig for vandlevende organismer.  
 H411 Giftig for vandlevende organismer, med langvarige virkninger.

### Sikkerhedssætninger

- P301+P310 I TILFÆLDE AF INDTAGELSE: Ring omgående til en GIFTINFORMATION/læge.  
 P303+P361+P353 VED KONTAKT MED HUDEN (eller håret): Tilsmudset tøj tages straks af/fjernes. Skyl [eller brus] huden med vand.  
 P305+P351+P338 VED KONTAKT MED ØJNENE: Skyl forsigtigt med vand i flere minutter. Fjern eventuelle kontaklinser, hvis dette kan gøres let. Fortsæt skylning.  
 P320 Særlig behandling straks påkrævet (se på denne etiket).  
 P362+P364 Alt tilsmudset tøj tages af og vaskes inden genanvendelse.  
 P405 Opbevares under lås.  
 P501 Bortskaffelse af indholdet/beholderen i henhold til de lokale/regionale/nationale/internationale forskrifter.

## 2.3 Andre farer

### Resultater af PBT- og vPvB-vurdering

- **PBT:** Ikke relevant.
- **vPvB:** Ikke relevant.

## PUNKT 3: Sammensætning af/oplysning om indholdsstoffer

### 3.2 Kemisk betegnelse: Blandinger

· **Beskrivelse:** Blanding med nedenstående stoffer med ufarlige tilsætningsstoffer.

#### Farlige indholdsstoffer:

CAS: 111-30-8 EINECS: 203-856-5	glutaral 	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	methanol 	≤2,5%

(Fortsættes på side 3)

# Sikkerhedsdatablad

## ifølge 1907/2006/EF, Artikel 31

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· <b>SVHC</b>	
111-30-8	glutaral
67-56-1	methanol

· **Yderligere anvisninger:** Teksten til de anførte farehenvísninger fremgår af kapitel 16.

### PUNKT 4: Førstehjælpsforanstaltninger

#### · 4.1 Beskrivelse af førstehjælpsforanstaltninger

##### · **Generelle anvisninger:**

Tøj, der er forurennet med produktet, skal tages af med det samme.

Forgiftningssymptomer kan optræde med mange timers forsinkelse, derfor skal lægeovervågningen være mindst 48 timer efter et uheld.

Åndedrætsværnet må først tages af, efter at det forurenede tøj er blevet fjernet.

I tilfælde af uregelmæssigt åndedræt eller hvis åndedrættet ophører, skal der gives kunstigt åndedræt.

##### · **Efter indånding:**

Tilførsel af frisk luft eller ilt. Søg lægehjælp.

I tilfælde af bevidstløshed skal den tilskadedkomne lægges ned og transporteres i stabilt sideleje.

##### · **Efter hudkontakt:** Skal omgående vaskes af med vand og sæbe, skyl godt efter.

##### · **Efter øjenkontakt:** Skyl øjnene med åbent øjenlåg i flere minutter under rindende vand og søg læge.

##### · **Efter indtagelse:**

Fremkald ikke opkastning, tilkald straks lægehjælp.

Drik rigeligt vand og sørg for frisk luft. Tilkald omgående læge.

#### · 4.2 Vigtigste symptomer og virkninger, både akutte og forsinkede

Der står ingen yderligere, relevante informationer til rådighed.

#### · 4.3 Angivelse af om øjeblikkelig lægehjælp og særlig behandling er nødvendig

Der står ingen yderligere, relevante informationer til rådighed.

### PUNKT 5: Brandbekæmpelse

#### · 5.1 Slukningsmidler

· **Egnede slukningsmidler:** Tilpas foranstaltningerne til brandbekæmpelse efter omgivelserne.

#### · 5.2 Særlige farer i forbindelse med stoffet eller blandingen

Der står ingen yderligere, relevante informationer til rådighed.

#### · 5.3 Anvisninger for brandmandskab

· **Særlige værnemidler:** Bær åndedrætsværn.

### PUNKT 6: Forholdsregler over for udslip ved uheld

#### · 6.1 Personlige sikkerhedsforanstaltninger, personlige værnemidler og nødprocedurer

Bær beskyttelsesudstyr. Hold ubeskyttede personer borte.

#### · 6.2 Miljøbeskyttelsesforanstaltninger:

I tilfælde af indtrængen i vandløb eller kloaksystem skal de pågældende myndigheder underrettes.

Fortynd med rigeligt vand.

Må ikke udledes i kloaksystemet/overfladevand/grundvand.

#### · 6.3 Metoder og udstyr til inddæmning og oprensning:

Opsamles med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, savsmuld).

Brug neutraliseringsmiddel.

Kontamineret materiale skal bortskaffes som affald ifølge punkt 13.

Sørg for tilstrækkelig udluftning.

(Fortsættes på side 4)

# Sikkerhedsdatablad

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- **6.4 Henvisning til andre punkter**  
Information om sikker håndtering se kapitel 7.  
Informationer vedrørende personlige værnemidler se kapitel 8.  
Informationer om bortskaffelse se kapitel 13.

### PUNKT 7: Håndtering og opbevaring

- **7.1 Forholdsregler for sikker håndtering**  
Sørg for god udluftning/udsugning på arbejdspladsen.  
Beholdere skal åbnes og håndteres med forsigtighed.  
Undgå aerosoldannelse.
- **Anvisninger vedrørende brand- og eksplosionsbeskyttelse:** Hold åndedrætsværn i beredskab.
- **7.2 Betingelser for sikker opbevaring, herunder eventuel uforenelighed**
- **Opbevaring:**
- **Krav til opbevaringsrum og beholdere:** Ingen særlige krav.
- **Henvisninger vedrørende opbevaring med andre stoffer:** Ikke påkrævet.
- **Yderligere oplysninger vedrørende opbevaringsbetingelserne:** Hold beholderen tætsluttende lukket.
- **7.3 Særlige anvendelser** Der står ingen yderligere, relevante informationer til rådighed.

### PUNKT 8: Eksponeringskontrol/personlige værnemidler

- **8.1 Kontrolparametre**
- **Yderligere anvisninger vedrørende udformning af tekniske anlæg:** Ingen yderligere oplysninger, se punkt 7.

· **Indholdsstoffer med arbejdspladsrelaterede grænseværdier, der skal overvåges:**

#### 111-30-8 glutaral

GV	Loftværdi: 0,8 mg/m <sup>3</sup> , 0,2 ppm
L	

#### 67-56-1 methanol

GV	Langtidsværdi: 260 mg/m <sup>3</sup> , 200 ppm
EH	

- **Yderligere anvisninger:** Baseret på de lister, der var gældende på tidspunktet for udarbejdelsen.
- **8.2 Eksponeringskontrol**
- **Personlige værnemidler:**
- **Generelle forholdsregler vedrørende beskyttelse og hygiejne:**  
Skal holdes borte fra føde- og drikkevarer og foderstoffer.  
Forurenet, gennemvædet tøj skal det tages af med det samme.  
Vask hænder inden der holdes pause og ved arbejdsophør.  
Adskilt opbevaring af beskyttelsesklædning.  
Undgå kontakt med øjnene.  
Undgå kontakt med øjne og hud.
- **Åndedrætsværn:**  
Ved kortvarig eller ringe belastning skal der benyttes åndedrætsværn med filter, ved intensiv eller længere eksponering skal der benyttes luftforsynet åndedrætsværn.
- **Håndbeskyttelse:**



Beskyttelseshandsker

(Fortsættes på side 5)

# Sikkerhedsdatablad

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Handskematerialet skal være uigennemtrængeligt og kunne tåle produktet/stoffet/præparatet.

På grund af manglende tests kan der ikke anbefales noget handskemateriale til produktet/præparatet/kemikalieblandingen.

Ved valg af handskematerialet skal der tages højde for gennemtrængningstider, permeabilitetstal og nedbrydning.

· **Handskemateriale:**

Valg af en egnet handske afhænger ikke blot af materialet, men også af yderligere kvalitetskriterier og er forskelligt fra den ene fabrikant til den anden. Da produktet er et præparat af flere forskellige stoffer, kan handskematerialernes bestandighed ikke beregnes på forhånd og skal derfor efterprøves inden brugen.

· **Handskematerialets gennemtrængningstid**

Hos handskefabrikanten skal man forespørge om den nøjagtige gennemtrængningstid og overholde denne.

· **Øjenbeskyttelse:**



Tætsluttende beskyttelsesbriller

### PUNKT 9: Fysiske og kemiske egenskaber

· **9.1 Oplysninger om grundlæggende fysiske og kemiske egenskaber**

· **Generelle oplysninger**

· **Udseende:**

· **Form:** Væske

· **Farve:** Gennemskinnelig

· **Lugt:** Frugtagtig

· **Lugttærskel:** Ikke bestemt.

· **pH-værdi:** Ikke bestemt.

· **Tilstandsændring**

· **Smeltepunkt/frysepunkt:** -21 °C

· **Begyndelseskogepunkt og kogepunktsinterval:** 100,5 °C

· **Flammepunkt:** Ikke relevant.

· **Antændelighed (fast stof, luftart):** Ikke relevant.

· **Dekomponeringstemperatur:** Ikke bestemt.

· **Selvantændelsestemperatur:** Produktet er ikke selvantændeligt.

· **Eksplorative egenskaber:** Produktet er ikke eksplosivt.

· **Eksplisionsgrænser:**

· **Nedre:** Ikke bestemt.

· **Øvre:** Ikke bestemt.

· **Damptryk ved 20 °C:** 0,3 hPa

· **Densitet ved 20 °C:** 1,129 g/cm<sup>3</sup>

· **Relativ massefylde:** Ikke bestemt.

· **Dampmassefylde:** Ikke bestemt.

· **Fordampningshastighed** Ikke bestemt.

· **Opløselighed i/blandbarhed med vand:**

Fuldt blandbar.

· **Fordeleingskoefficient: n-oktanol/vand:** Ikke bestemt.

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# Sikkerhedsdatablad

## ifølge 1907/2006/EF, Artikel 31

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· <b>Viskositet:</b>	
<b>dynamisk:</b>	<i>Ikke bestemt.</i>
<b>kinematisk:</b>	<i>Ikke bestemt.</i>
· <b>Opløsningsmiddelindhold:</b>	
<b>Organiske opløsningsmidler:</b>	0,5 %
<b>Vand</b>	29,5 %
<b>VOC (EU)</b>	0,50 %
· <b>Tørstofindhold:</b>	0,0 %
· <b>9.2 Andre oplysninger</b>	<i>Der står ingen yderligere, relevante informationer til rådighed.</i>

### PUNKT 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Der står ingen yderligere, relevante informationer til rådighed.
- **10.2 Kemisk stabilitet**
- **Termisk nedbrydning/forhold, der bør undgås** Ingen nedbrydning ved formålsbestemt brug.
- **10.3 Risiko for farlige reaktioner** Der er ikke kendskab til nogen farlige reaktioner.
- **10.4 Forhold, der skal undgås** Der står ingen yderligere, relevante informationer til rådighed.
- **10.5 Materialer, der skal undgås:** Der står ingen yderligere, relevante informationer til rådighed.
- **10.6 Farlige nedbrydningsprodukter:** Der er ikke kendskab til nogen farlige nedbrydningsprodukter.

### PUNKT 11: Toksikologiske oplysninger

- **11.1 Oplysninger om toksikologiske virkninger**
- **Akut toksicitet**  
Giftig ved indtagelse.  
Livsfarlig ved indånding.

- **Klassificeringsrelevante LD/LC50-værdier:**

#### 111-30-8 glutaral

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2.560 mg/kg (rabbit)

- **Primær irritationsvirkning:**
- **Hudætsning/-irritation**  
Forårsager svære ætsninger af huden og øjenskader.
- **Alvorlig øjenskade/øjenirritation**  
Forårsager alvorlig øjenskade.
- **Respiratorisk sensibilisering eller hudsensibilisering**  
Kan forårsage allergi- eller astmasymptomer eller åndedrætsbesvær ved indånding.  
Kan forårsage allergisk hudreaktion.
- **Yderligere toksikologiske oplysninger:**
- **CMR-virkninger (kræftfremkaldende egenskaber, mutagenicitet og reproduktionstoksicitet)**
- **Kimcellemutagenicitet**  
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.
- **Kræftfremkaldende egenskaber**  
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.
- **Reproduktionstoksicitet**  
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.
- **Enkel STOT-eksponering**  
Kan forårsage irritation af luftvejene.

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# Sikkerhedsdatablad

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- **Gentagne STOT-eksponeringer**  
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.
- **Aspirationsfare**  
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

### PUNKT 12: Miljøoplysninger

- **12.1 Toksicitet**
- **Toksicitet i vand:** Der står ingen yderligere, relevante informationer til rådighed.
- **12.2 Persistens og nedbrydelighed** Der står ingen yderligere, relevante informationer til rådighed.
- **12.3 Bioakkumuleringspotentiale** Der står ingen yderligere, relevante informationer til rådighed.
- **12.4 Mobilitet i jord** Der står ingen yderligere, relevante informationer til rådighed.
- **Økotoksicitet**
- **Bemærkning:**  
Meget giftig for fisk.  
Giftig for fisk.
- **Yderligere økologiske oplysninger:**
- **Generelle anvisninger:**  
Fareklasse for vand 3 (Selvklassificering): stærkt vandforurenende  
Må ikke udledes i grundvandet, vandløb eller kloaksystemet, heller ikke i små mængder.  
Må ikke udledes ufortyndet eller unneutraliseret i spildevandet eller recipienten.  
Risiko for forurening af drikkevandet allerede ved udslip af ganske små mængder i undergrunden.  
I vandløb også giftig for fisk og plankton.  
meget giftig for vandorganismer  
giftig for vandorganismer
- **12.5 Resultater af PBT- og vPvB-vurdering**
- **PBT:** Ikke relevant.
- **vPvB:** Ikke relevant.
- **12.6 Andre negative virkninger** Der står ingen yderligere, relevante informationer til rådighed.

### PUNKT 13: Bortskaffelse

- **13.1 Metoder til affaldsbehandling**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsaffald. Må ikke udledes i kloaksystemet.
- **Urensede emballager:**
- **Anbefaling:** Bortskaffes i overensstemmelse med myndighedernes forskrifter.
- **Anbefalet rengøringsmiddel:** Vand, eventuelt tilsat rengøringsmidler.

### PUNKT 14: Transportoplysninger

- **14.1 UN-nummer**
- **ADR, IMDG, IATA** UN3265
- **14.2 UN-forsendelsesbetegnelse (UN proper shipping name)**
- **ADR** 3265 ÆTSENDE SUR ORGANISK VÆSKE, N.O.S.  
(glutaral), MILJØFARLIGT
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)

(Fortsættes på side 8)

DK

# Sikkerhedsdatablad

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· **14.3 Transportfareklasse(r)**

· **ADR**



· **klasse** 8 Ætsende stoffer  
 · **Faremærkat** 8+6.1

· **IMDG**



· **Class** 8 Ætsende stoffer  
 · **Label** 8/6.1

· **IATA**



· **Class** 8 Ætsende stoffer  
 · **Label** 8 (6.1)

· **14.4 Emballagegruppe**

· **ADR, IMDG, IATA** II

· **14.5 Miljøfarer:**

· **Særlige mærkningsbe (ADR):** Produkt indeholder miljøfarlige stoffer: glutaral

Symbol (fisk og træ)

· **14.6 Særlige forsigtighedsregler for brugeren**

· **Farenummer (Kemler-tal):** Advarsel: Ætsende stoffer  
 88  
 · **EMS-nummer:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** B  
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Bulktransport i henhold til bilag II til MARPOL og IBC-koden**

Ikke relevant.

· **Transport/yderligere oplysninger:**

· **ADR**

· **Begrænsede mængder (LQ)** 1L  
 · **Undtagne mængder (EQ)** Kode: E2  
 Største tilladte nettomængde pr. indvendig emballage: 30 ml  
 Største tilladte nettomængde pr. ydre emballage: 500 ml  
 · **Transportkategori** 2  
 · **Tunnelrestriktionskode** E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 ÆTSENDE SUR ORGANISK VÆSKE, N.O.S. (GLUTARAL), 8 (6.1), II, MILJØFARLIGT

### PUNKT 15: Oplysninger om regulering

· **15.1 Særlige bestemmelser/særlig lovgivning for stoffet eller blandingen med hensyn til sikkerhed, sundhed og miljø**

· **Direktiv 2012/18/EU**

· **Navngivne farlige stoffer - BILAG I** Ingen af indholdsstofferne er optaget i listen.

· **Seveso-bestemmelser**

H2 AKUT TOKSISK

E1 Farlig for vandmiljøet

· **Tærskelmængde (tons) for anvendelse af Kolonne 2-krav** 50 t

· **Tærskelmængde (tons) for anvendelse af Kolonne 3-krav** 200 t

· **Forordning (EF) nr. 1907/2006 BILAG XVII** Begrænsninger: 3

· **Direktiv 2011/65/EU om begrænsning af anvendelsen af visse farlige stoffer i elektrisk og elektronisk udstyr - Bilag II**

Ingen af indholdsstofferne er optaget i listen.

· **FORORDNING (EU) 2019/1148**

· **Bilag I - UDANGSSTOFFER TIL EKSPLOSIVSTOFFER UNDERLAGT BEGRÆNSNINGER (Øvre grænseværdi med henblik på licens i henhold til artikel 5, stk. 3)**

Ingen af indholdsstofferne er optaget i listen.

· **Bilag II - INDBERETNINGSPLIGTIGE UDANGSSTOFFER TIL EKSPLOSIVSTOFFER**

Ingen af indholdsstofferne er optaget i listen.

· **Forordning (EF) nr. 273/2004 om narkotikaprækursorer**

Ingen af indholdsstofferne er optaget i listen.

· **Forordning (EF) Nr. 111/2005 om regler for overvågning af handel med narkotikaprækursorer mellem Fællesskabet og tredjelande**

Ingen af indholdsstofferne er optaget i listen.

· **Nationale forskrifter:**

· **Øvrige forskrifter, restriktioner og forbudsforordninger**

· **Særligt problematiske stoffer (SVHC) ifølge REACH, artikel 57**

111-30-8	glutaral
----------	----------

67-56-1	methanol
---------	----------

· **MAL-Code:** 5-6

· **15.2 Kemikaliesikkerhedsvurdering:** Der er ikke udført kemikaliesikkerhedsvurdering.

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### PUNKT 16: Andre oplysninger

Alle ovenstående angivelser er baseret på vores aktuelle viden, udgør dog ikke nogen tilsikring af produkttegenskaber og stifter heller ikke noget kontraktligt retsforhold.

#### · Risikoangivelser

H225 Meget brandfarlig væske og damp.

H301 Giftig ved indtagelse.

H302 Farlig ved indtagelse.

H312 Farlig ved hudkontakt.

H314 Forårsager svære ætsninger af huden og øjenskader.

H317 Kan forårsage allergisk hudreaktion.

H330 Livsfarlig ved indånding.

H332 Farlig ved indånding.

H334 Kan forårsage allergi- eller astmasymptomer eller åndedrætsbesvær ved indånding.

H335 Kan forårsage irritation af luftvejene.

H370 Forårsager organskader.

H400 Meget giftig for vandlevende organismer.

H411 Giftig for vandlevende organismer, med langvarige virkninger.

#### · Forkortelser og akronymer:

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

IMDG: International Maritime Code for Dangerous Goods

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)

Måleteknisk Arbejdshygiejnisk Luftbehov

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Brandfarlige væsker – Kategori 2

Acute Tox. 3: Akut toksicitet – Kategori 3

Acute Tox. 4: Akut toksicitet – Kategori 4

Acute Tox. 2: Akut toksicitet – Kategori 2

Skin Corr. 1B: Hudætsning/hudirritation – Kategori 1B

Eye Dam. 1: Alvorlige øjenskader/øjenirritation – Kategori 1

Resp. Sens. 1: Respiratorisk sensibilisering – Kategori 1

Skin Sens. 1: Hudsensibilisering – Kategori 1

Skin Sens. 1A: Hudsensibilisering – Kategori 1A

STOT SE 1: Specifik målorgantoksicitet (enkelt eksponering) – Kategori 1

STOT SE 3: Specifik målorgantoksicitet (enkelt eksponering) – Kategori 3

Aquatic Acute 1: Farlig for vandmiljøet - akut fare for vandmiljøet – Kategori 1

Aquatic Chronic 2: Farlig for vandmiljøet - langtidsfare for vandmiljøet – Kategori 2

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

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

### · 1.1 Productidentificatie

· **Handelsnaam:** Glutaraldehyde 70% EM Grade

· **Artikelnummer:** 16350, 16360-SP, 16360, 16365

· **UFI:** HNC5-K0GK-J004-SNPM

### · 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**



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 3

H301 Giftig bij inslikken.

Acute Tox. 2

H330 Dodelijk bij inademing.



GHS08 gezondheidsgevaar

Resp. Sens. 1

H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.



GHS05 corrosie

Skin Corr. 1B

H314 Veroorzaakt ernstige brandwonden en oogletsel.

Eye Dam. 1

H318 Veroorzaakt ernstig oogletsel.

(Vervolg op blz. 2)

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GHS09 milieu

*Aquatic Acute 1 H400 Zeer giftig voor in het water levende organismen.*

*Aquatic Chronic 2 H411 Giftig voor in het water levende organismen, met langdurige gevolgen.*



GHS07

*Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.*

*STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.*

### · 2.2 Etiketteringselementen

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

*Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.*

#### · Gevarenpictogrammen



GHS05



GHS06



GHS08



GHS09

#### · Signaalwoord Gevaar

#### · Gevaaraanduidende componenten voor de etikettering:

*Glutaaraldehyd*

#### · Gevarenaanduidingen

*H301 Giftig bij inslikken.*

*H330 Dodelijk bij inademing.*

*H314 Veroorzaakt ernstige brandwonden en oogletsel.*

*H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.*

*H317 Kan een allergische huidreactie veroorzaken.*

*H335 Kan irritatie van de luchtwegen veroorzaken.*

*H400 Zeer giftig voor in het water levende organismen.*

*H411 Giftig voor in het water levende organismen, met langdurige gevolgen.*

#### · Veiligheidsaanbevelingen

*P301+P310 NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.*

*P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken.*

*Huid met water afspoelen [of afdouchen].*

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

*P320 Specifieke behandeling dringend vereist (zie op dit etiket).*

*P362+P364 Verontreinigde kleding uittrekken en wassen alvorens deze opnieuw te gebruiken.*

*P405 Achter slot bewaren.*

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

#### · 2.3 Andere gevaren

#### · Resultaten van PBT- en zPzB-beoordeling

· **PBT:** Niet bruikbaar.

· **zPzB:** Niet bruikbaar.

NL

(Vervolg op blz. 3)

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### 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: 111-30-8 EINECS: 203-856-5	Glutaaraldehyd ⚠️ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠️ Resp. Sens. 1, H334; ⚠️ Skin Corr. 1B, H314; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠️ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	methanol ⚠️ Flam. Liq. 2, H225; ⚠️ STOT SE 1, H370; ⚠️ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

- **SVHC**

111-30-8	Glutaaraldehyd
67-56-1	methanol

- **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:**  
Verontreinigde kleding onmiddellijk uittrekken.  
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.  
Ademhalingsstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.  
Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.
- **Na het inademen:**  
Verse lucht of zuurstof toedienen; deskundige medische hulp inroepen.  
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.
- **Na inslikken:**  
Geen braken teweegbrengen en onmiddellijk medische hulp raadplegen.  
Drink zeer veel water en voer verse lucht aan. Onmiddellijk een dokter waarschuwen.
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**  
Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.
- **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:** Ademhalingsstoestel aantrekken.

NL

(Vervolg op blz. 4)

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures**  
Beschermdende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvorzorgsmaatregelen:**  
Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.  
Met veel water verdunnen.  
Niet in de riolering/het oppervlaktewater/het grondwater laten terecht komen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**  
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.  
Neutralisatiemiddel gebruiken.  
Besmet materiaal zoals afval volgens punt 13 verwijderen.  
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**  
Informatie inzake veilig gebruik - zie hoofdstuk 7.  
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.  
Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.  
Tanks voorzichtig openen en behandelen.  
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

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

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

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

#### 67-56-1 methanol

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

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

- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Beschermdende kleding afzonderlijk bewaren.  
Aanraking met de ogen vermijden.  
Aanraking met de ogen en de huid vermijden.

(Vervolg op blz. 5)

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· **Ademhalingsbescherming:**

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

· **Handbescherming:**



Veiligheidshandschoenen

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

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

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

· **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. 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>	Doorschijnend
<b>Geur:</b>	Fruittachtig
<b>Geurdrempelwaarde:</b>	Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

<b>Smelt-/vriespunt:</b>	-21 °C
<b>Beginkookpunt en kooktraject:</b>	100,5 °C

· **Vlampunt:** Niet bruikbaar.

· **Ontvlambaarheid (vast, gas):** Niet bruikbaar.

· **Ontledingstemperatuur:** Niet bepaald.

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

· **Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk.

· **Ontploffingsgrenzen:**

<b>Onderste:</b>	Niet bepaald.
<b>Bovenste:</b>	Niet bepaald.

(Vervolg op blz. 6)

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(Vervolg van blz. 5)

· <b>Dampspanning bij 20 °C:</b>	0,3 hPa
· <b>Dichtheid bij 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bepaald.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Volledig 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>	0,5 %
<b>Water:</b>	29,5 %
<b>VOC (EG)</b>	0,50 %
<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**  
Giftig bij inslikken.  
Dodelijk bij inademing.

### · Indelingsrelevantie LD/LC50-waarden:

#### 111-30-8 Glutaaraldehyd

Oraal	LD50	134 mg/kg (rat)
Dermaal	LD50	2.560 mg/kg (rabbiet)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt ernstige brandwonden en oogletsel.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstig oogletsel.
- **Sensibilisatie van de luchtwegen/de huid**  
Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.  
Kan een allergische huidreactie veroorzaken.

(Vervolg op blz. 7)

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(Vervolg van blz. 6)

- **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 irritatie van de luchtwegen 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.
- **Ecotoxische effecten:**
- **Opmerking:**  
Zeer giftig voor vissen.  
Giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioacumulerend vermogen/ toxiciteit of persistentie)  
Gevaar voor water klasse 3 (D) (Zelfclassificatie): gevaar voor water groot  
Niet lozen in grondwater, oppervlaktewater of riolering, ook niet in kleine hoeveelheden.  
Mag niet onverdund of niet geneutraliseerd in oppervlaktewater of in afwateringskanaal geloosd worden.  
Gevaar voor drinkwater zelfs bij het uitlopen van zeer geringe hoeveelheden in de ondergrond.  
In oppervlaktewater ook giftig voor vissen en plankton.  
zeer giftig voor in het water levende organismen  
giftig voor in het water levende organismen
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

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

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

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN3265

(Vervolg op blz. 8)



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· **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**  
 · **ADR** 3265 BIJTENDE ZURE ORGANISCHE VLOEISTOF, N.E.G.  
 (Glutaaraldehyd), MILIEUGEVAARLIJK  
 · **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
 (Glutaraldehyde)

· **14.3 Transportgevarenklasse(n)**

· **ADR**



· **klasse** 8 Bijtende stoffen  
 · **Etiket** 8+6.1

· **IMDG**



· **Class** 8 Bijtende stoffen  
 · **Label** 8/6.1

· **IATA**



· **Class** 8 Bijtende stoffen  
 · **Label** 8 (6.1)

· **14.4 Verpakkingsgroep:**

· **ADR, IMDG, IATA** II

· **14.5 Milieugevaren:**

· **Bijzondere kenmerking (ADR):** Produkt bevat milieugevaarlijke stoffen: Glutaaraldehyd

Symbol (vis en boom)

· **14.6 Bijzondere voorzorgen voor de gebruiker**

Waarschuwing: Bijtende stoffen

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

88

· **EMS-nummer:**

F-A,S-B

· **Segregation groups**

Acids

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **14.7 Vervoer in bulk overeenkomstig bijlage II bij**

**Marpol en de IBC-code**

Niet bruikbaar.

· **Transport/verdere gegevens:**

· **ADR**

· **Beperkte hoeveelheden (LQ)**

1L

· **Uitgezonderde hoeveelheden (EQ)**

Code: E2

Grootste netto hoeveelheid per binnenverpakking: 30 ml

Grootste netto hoeveelheid per buitenverpakking: 500 ml

· **Vervoerscategorie**

2

(Vervolg op blz. 9)

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· <b>Tunnelbeperkingscode</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>VN "Model Regulation":</b>	UN 3265 BIJTENDE ZURE ORGANISCHE VLOEISTOF, N.E.G. (GLUTAARALDEHYD), 8 (6.1), II, MILIEUGEVAARLIJK

## 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)**

geen der bestanddelen staat op de lijst.

#### · **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

#### · **Richtlijn 2012/18/EU**

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

#### · **Seveso-categorie**

H2 ACUUT TOXISCH

E1 Gevaar voor het aquatisch milieu

· **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen** 50 t

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen** 200 t

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

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

geen der bestanddelen staat op de lijst.

#### · **VERORDENING (EU) 2019/1148**

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

(Vervolg op blz. 10)

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· **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)

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

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

111-30-8	Glutaaraldehyd
67-56-1	methanol

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

### RUBRIEK 16: Overige informatie

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

· **Relevante zinnen**

H225 Licht ontvlambare vloeistof en damp.

H301 Giftig bij inslikken.

H302 Schadelijk bij inslikken.

H312 Schadelijk bij contact met de huid.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H317 Kan een allergische huidreactie veroorzaken.

H330 Dodelijk bij inademing.

H332 Schadelijk bij inademing.

H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

H370 Veroorzaakt schade aan organen.

H400 Zeer giftig voor in het water levende organismen.

H411 Giftig voor in het water levende organismen, met langdurige gevolgen.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2

Acute Tox. 3: Acute toxiciteit – Categorie 3

Acute Tox. 4: Acute toxiciteit – Categorie 4

Acute Tox. 2: Acute toxiciteit – Categorie 2

Skin Corr. 1B: Huidcorrosie/irritatie – Categorie 1B

Eye Dam. 1: Ernstig oogletsel/oogirritatie – Categorie 1

(Vervolg op blz. 11)

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*Resp. Sens. 1: Sensibilisatie van de luchtwegen – Categorie 1**Skin Sens. 1: Sensibilisatie van de huid – Categorie 1**Skin Sens. 1A: Sensibilisatie van de huid – Categorie 1A**STOT SE 1: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 1**STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3**Aquatic Acute 1: Gevaar voor het aquatisch milieu - acuut aquatisch gevaar – Categorie 1**Aquatic Chronic 2: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 2*

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 10.05.2022

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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:** Glutaraldehyde 70% EM Grade
- **Code du produit:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **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**



GHS06 tête de mort sur deux tibias

Acute Tox. 3      H301 Toxique en cas d'ingestion.  
Acute Tox. 2      H330 Mortel par inhalation.



GHS08 danger pour la santé

Resp. Sens. 1      H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.



GHS05 corrosion

Skin Corr. 1B      H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.  
Eye Dam. 1      H318 Provoque de graves lésions des yeux.



GHS09 environnement

Aquatic Acute 1      H400 Très toxique pour les organismes aquatiques.  
Aquatic Chronic 2      H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

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GHS07

Skin Sens. 1      H317 Peut provoquer une allergie cutanée.  
STOT SE 3      H335 Peut irriter les voies respiratoires.

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



GHS05   GHS06   GHS08   GHS09

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**  
glutaral
- **Mentions de danger**  
H301 Toxique en cas d'ingestion.  
H330 Mortel par inhalation.  
H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.  
H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.  
H317 Peut provoquer une allergie cutanée.  
H335 Peut irriter les voies respiratoires.  
H400 Très toxique pour les organismes aquatiques.  
H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
- **Conseils de prudence**  
P301+P310 EN CAS D'INGESTION: Appeler immédiatement un CENTRE ANTIPOISON/un médecin.  
P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau [ou se doucher].  
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.  
P320 Un traitement spécifique est urgent (voir sur cette étiquette).  
P362+P364 Enlever les vêtements contaminés et les laver avant réutilisation.  
P405 Garder sous clef.  
P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.
- 2.3 Autres dangers
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

### 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.

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· Composants dangereux:		
CAS: 111-30-8 EINECS: 203-856-5	glutaral ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	méthanol ⚠ Flam. Liq. 2, H225; ⚠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%
· SVHC		
111-30-8	glutaral	
67-56-1	méthanol	

· **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:**

Enlever immédiatement les vêtements contaminés par le produit.

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

Ne retirer la protection respiratoire qu'après avoir retiré les vêtements contaminés.

Respiration artificielle dans le cas d'une respiration irrégulière ou d'un arrêt respiratoire.

· **Après inhalation:**

Donner de l'air frais ou de l'oxygène; demander d'urgence une assistance médicale.

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

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

· **Après contact avec les yeux:**

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières et consulter un médecin.

· **Après ingestion:**

Ne pas faire vomir, demander d'urgence une assistance médicale.

Boire de l'eau en abondance et donner de l'air frais. Consulter immédiatement un médecin.

· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

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

· **5.1 Moyens d'extinction**

· **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.

· **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**

Porter un équipement de sécurité. Eloigner les personnes non protégées.

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

### RUBRIQUE 7: Manipulation et stockage

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

### 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:**

#### 111-30-8 glutaral

<i>VLEP</i>	<i>Valeur momentanée: 0,8 mg/m<sup>3</sup>, 0,2 ppm Valeur à long terme: 0,4 mg/m<sup>3</sup>, 0,1 ppm</i>
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#### 67-56-1 méthanol

<i>VLEP</i>	<i>Valeur momentanée: 1300 mg/m<sup>3</sup>, 1000 ppm Valeur à long terme: 260 mg/m<sup>3</sup>, 200 ppm risque de pénétration percutanée, (11)</i>
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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.*

(suite page 5)



# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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**Nom du produit:** *Glutaraldehyde 70% EM Grade*

(suite de la page 4)

Conserver à part les vêtements de protection.  
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:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.  
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

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

· **Matériau des gants**

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

· **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:**

<b>Forme:</b>	Liquide
<b>Couleur:</b>	Translucide
<b>Odeur:</b>	De type fruité
<b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

<b>Point de fusion/point de congélation:</b>	-21 °C
<b>Point initial d'ébullition et intervalle d'ébullition:</b>	100,5 °C

· **Point d'éclair** Non applicable.

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

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

· **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:** Le produit n'est pas explosif.

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**Nom du produit: Glutaraldehyde 70% EM Grade**

(suite de la page 5)

· <b>Limites d'explosion:</b>	
<b>Inférieure:</b>	Non déterminé.
<b>Supérieure:</b>	Non déterminé.
· <b>Pression de vapeur à 20 °C:</b>	0,3 hPa
· <b>Densité à 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	0,5 %
<b>Eau:</b>	29,5 %
<b>VOC (CE)</b>	0,50 %
<b>Teneur en substances solides:</b>	0,0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

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

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**  
Toxique en cas d'ingestion.  
Mortel par inhalation.

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

#### 111-30-8 glutaral

Oral	LD50	134 mg/kg (rat)
Dermique	LD50	2.560 mg/kg (lapin)

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque de graves brûlures de la peau et de graves lésions des yeux.
- **Lésions oculaires graves/irritation oculaire**  
Provoque de graves lésions des yeux.

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(suite de la page 6)

- **Sensibilisation respiratoire ou cutanée**  
Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.  
Peut provoquer une allergie cutanée.
- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité 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 irriter les voies respiratoires.
- **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.
- **Effets écotoxiques:**
- **Remarque:**  
Très toxique chez les poissons.  
Toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**  
Catégorie de pollution des eaux 3 (D) (Classification propre): très polluant  
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations, même pas en petite quantité.  
Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.  
Danger pour l'eau potable dès fuite d'une quantité minime dans le sous-sol.  
Dans les eaux, également toxique pour les poissons et le plancton.  
Très toxique pour organismes aquatiques.  
Toxique pour les organismes aquatiques.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

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

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

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### RUBRIQUE 14: Informations relatives au transport

· 14.1 Numéro ONU

· ADR, IMDG, IATA

UN3265

· 14.2 Désignation officielle de transport de l'ONU

· ADR

3265 LIQUIDE ORGANIQUE CORROSIF, ACIDE, N.S.A. (glutaral), DANGEREUX POUR L'ENVIRONNEMENT

· IMDG, IATA

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)

· 14.3 Classe(s) de danger pour le transport

· ADR



· Classe

8 Matières corrosives.

· Étiquette

8+6.1

· IMDG



· Class

8 Matières corrosives.

· Label

8/6.1

· IATA



· Class

8 Matières corrosives.

· Label

8 (6.1)

· 14.4 Groupe d'emballage

· ADR, IMDG, IATA

II

· 14.5 Dangers pour l'environnement:

Le produit contient matières dangereuses pour l'environnement : glutaral

· Marquage spécial (ADR):

Signe conventionnel (poisson et arbre)

· 14.6 Précautions particulières à prendre par l'utilisateur

Attention: Matières corrosives.

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

88

· No EMS:

F-A,S-B

· Segregation groups

Acids

· Stowage Category

B

· Stowage Code

SW2 Clear of living quarters.

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

Non applicable.

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

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Nom du produit: **Glutaraldehyde 70% EM Grade**

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· **Indications complémentaires de transport:**· **ADR**· **Quantités limitées (LQ)**

1L

· **Quantités exceptées (EQ)**

Code: E2

Quantité maximale nette par emballage intérieur: 30 ml

Quantité maximale nette par emballage extérieur: 500

ml

· **Catégorie de transport**

2

· **Code de restriction en tunnels**

E

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

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **"Règlement type" de l'ONU:**

UN 3265 LIQUIDE ORGANIQUE CORROSIF, ACIDE,

N.S.A. (GLUTARAL), 8 (6.1), II, DANGEREUX POUR

L'ENVIRONNEMENT

### RUBRIQUE 15: Informations relatives à la réglementation

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

· **Directive 2012/18/UE**· **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.· **Catégorie SEVESO**

H2 TOXICITÉ AIGUË

E1 Danger pour l'environnement aquatique

· **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas** 50 t· **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut** 200 t· **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3

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

Aucun des composants n'est compris.

· **RÈGLEMENT (UE) 2019/1148**

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

Aucun des composants n'est compris.

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

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.

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**Nom du produit: Glutaraldehyde 70% EM Grade**

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· **Prescriptions nationales:**

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

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

111-30-8	glutaral
67-56-1	méthanol

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

### RUBRIQUE 16: Autres informations

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

· **Phrases importantes**

H225 Liquide et vapeurs très inflammables.

H301 Toxique en cas d'ingestion.

H302 Nocif en cas d'ingestion.

H312 Nocif par contact cutané.

H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.

H317 Peut provoquer une allergie cutanée.

H330 Mortel par inhalation.

H332 Nocif par inhalation.

H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.

H335 Peut irriter les voies respiratoires.

H370 Risque avéré d'effets graves pour les organes.

H400 Très toxique pour les organismes aquatiques.

H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Liquides inflammables – Catégorie 2

Acute Tox. 3: Toxicité aiguë – Catégorie 3

Acute Tox. 4: Toxicité aiguë – Catégorie 4

Acute Tox. 2: Toxicité aiguë – Catégorie 2

Skin Corr. 1B: Corrosion cutanée/irritation cutanée – Catégorie 1B

Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1

Resp. Sens. 1: Sensibilisation respiratoire – Catégorie 1

Skin Sens. 1: Sensibilisation cutanée – Catégorie 1

Skin Sens. 1A: Sensibilisation cutanée – Catégorie 1A

STOT SE 1: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 1

STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3

Aquatic Acute 1: Dangers pour le milieu aquatique- toxicité aiguë pour le milieu aquatique – Catégorie 1

Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 10.05.2022

überarbeitet am: 10.05.2022

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

- **1.1 Produktidentifikator**
- **Handelsname:** Glutaraldehyde 70% EM Grade
- **Artikelnummer:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **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
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

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



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3      H301 Giftig bei Verschlucken.

Acute Tox. 2      H330 Lebensgefahr bei Einatmen.



GHS08 Gesundheitsgefahr

Resp. Sens. 1      H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.



GHS05 Ätzwirkung

(Fortsetzung auf Seite 2)

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(Fortsetzung von Seite 1)

*Skin Corr. 1B*      *H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.*

*Eye Dam. 1*      *H318 Verursacht schwere Augenschäden.*



**GHS09 Umwelt**

*Aquatic Acute 1*      *H400 Sehr giftig für Wasserorganismen.*

*Aquatic Chronic 2*      *H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.*



**GHS07**

*Skin Sens. 1*      *H317 Kann allergische Hautreaktionen verursachen.*

*STOT SE 3*      *H335 Kann die Atemwege reizen.*

### · 2.2 Kennzeichnungselemente

#### · Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

#### · Gefahrenpiktogramme



GHS05



GHS06



GHS08



GHS09

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Glutaral

#### · Gefahrenhinweise

*H301 Giftig bei Verschlucken.*

*H330 Lebensgefahr bei Einatmen.*

*H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.*

*H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.*

*H317 Kann allergische Hautreaktionen verursachen.*

*H335 Kann die Atemwege reizen.*

*H400 Sehr giftig für Wasserorganismen.*

*H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.*

#### · Sicherheitshinweise

*P301+P310 BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.*

*P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen [oder duschen].*

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

*P320 Besondere Behandlung dringend erforderlich (siehe auf diesem Kennzeichnungsetikett).*

*P362+P364 Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.*

*P405 Unter Verschluss aufbewahren.*

*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.

(Fortsetzung auf Seite 3)



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**Handelsname: Glutaraldehyde 70% EM Grade**

(Fortsetzung von Seite 2)

· **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: 111-30-8 EINECS: 203-856-5	<b>Glutaral</b> ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	<b>Methanol</b> ⚠ Flam. Liq. 2, H225; ⚠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

- **SVHC**

111-30-8	Glutaral
67-56-1	Methanol

- **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:**  
 Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.  
 Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.  
 Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.  
 Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.
- **Nach Einatmen:**  
 Frischluft- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.  
 Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:**  
 Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.
- **Nach Verschlucken:**  
 Kein Erbrechen herbeiführen, sofort ärztliche Hilfe zuziehen.  
 Reichlich Wasser nachtrinken und Frischluftzufuhr. Unverzüglich Arzt hinzuziehen.
- **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:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
 Keine weiteren relevanten Informationen verfügbar.

(Fortsetzung auf Seite 4)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

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überarbeitet am: 10.05.2022

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(Fortsetzung von Seite 3)

- **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**  
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:**  
Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.  
Mit viel Wasser verdünnen.  
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Neutralisationsmittel anwenden.  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

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

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

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

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

#### 111-30-8 Glutaral

AGW Langzeitwert: 0,2 mg/m<sup>3</sup>, 0,05 ml/m<sup>3</sup>  
2(I);AGS, Sah, Y

#### 67-56-1 Methanol

AGW Langzeitwert: 130 mg/m<sup>3</sup>, 100 ml/m<sup>3</sup>  
2(II);DFG, EU, H, Y

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**· Bestandteile mit biologischen Grenzwerten:**
**67-56-1 Methanol**

BGW 30 mg/l

Untersuchungsmaterial: Urin

Probennahmezeitpunkt: bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende

Parameter: Methanol

**· Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

**· 8.2 Begrenzung und Überwachung der Exposition**
**· Persönliche Schutzausrüstung:**
**· Allgemeine Schutz- und Hygienemaßnahmen:**

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen 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:**


Schutzhandschuhe

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

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

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

**· Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

**· Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

**· Augenschutz:**


Dichtschließende Schutzbrille

## ABSCHNITT 9: Physikalische und chemische Eigenschaften

**· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
**· Allgemeine Angaben**
**· Aussehen:**
**Form:** Flüssigkeit

**Farbe:** Durchscheinend

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· <b>Geruch:</b>	Obstartig
· <b>Geruchsschwelle:</b>	Nicht bestimmt.
· <b>pH-Wert:</b>	Nicht bestimmt.
· <b>Zustandsänderung</b>	
<b>Schmelzpunkt/Gefrierpunkt:</b>	-21 °C
<b>Siedebeginn und Siedebereich:</b>	100,5 °C
· <b>Flammpunkt:</b>	Nicht anwendbar.
· <b>Entzündbarkeit (fest, gasförmig):</b>	Nicht anwendbar.
· <b>Zersetzungstemperatur:</b>	Nicht bestimmt.
· <b>Selbstentzündungstemperatur:</b>	Das Produkt ist nicht selbstentzündlich.
· <b>Explosive Eigenschaften:</b>	Das Produkt ist nicht explosionsgefährlich.
· <b>Explosionsgrenzen:</b>	
<b>Untere:</b>	Nicht bestimmt.
<b>Obere:</b>	Nicht bestimmt.
· <b>Dampfdruck bei 20 °C:</b>	0,3 hPa
· <b>Dichte bei 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Relative Dichte</b>	Nicht bestimmt.
· <b>Dampfdichte</b>	Nicht bestimmt.
· <b>Verdampfungsgeschwindigkeit</b>	Nicht bestimmt.
· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Vollständig mischbar.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
<b>Dynamisch:</b>	Nicht bestimmt.
<b>Kinematisch:</b>	Nicht bestimmt.
· <b>Lösemittelgehalt:</b>	
<b>Organische Lösemittel:</b>	0,5 %
<b>Wasser:</b>	29,5 %
<b>VOC (EU)</b>	0,50 %
<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.

 DE  
 (Fortsetzung auf Seite 7)

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### ABSCHNITT 11: Toxikologische Angaben

#### 11.1 Angaben zu toxikologischen Wirkungen

##### Akute Toxizität

Giftig bei Verschlucken.

Lebensgefahr bei Einatmen.

##### Einstufungsrelevante LD/LC50-Werte:

#### 111-30-8 Glutaral

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2.560 mg/kg (rabbit)

##### Primäre Reizwirkung:

##### Ätz-/Reizwirkung auf die Haut

Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

##### Schwere Augenschädigung/-reizung

Verursacht schwere Augenschäden.

##### Sensibilisierung der Atemwege/Haut

Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

Kann allergische Hautreaktionen verursachen.

##### 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 die Atemwege reizen.

##### 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.

#### Ökotoxische Wirkungen:

##### Bemerkung:

Sehr giftig für Fische.

Giftig für Fische.

##### Weitere ökologische Hinweise:

##### Allgemeine Hinweise:

Wassergefährdungsklasse 3 (Selbsteinstufung): stark wassergefährdend

Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen, auch nicht in kleinen Mengen.

Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.

Trinkwassergefährdung bereits beim Auslaufen geringster Mengen in den Untergrund.

In Gewässern auch giftig für Fische und Plankton.

sehr giftig für Wasserorganismen

giftig für Wasserorganismen

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

PBT: Nicht anwendbar.

vPvB: Nicht anwendbar.

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

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

 · **14.1 UN-Nummer**  
 · **ADR, IMDG, IATA** UN3265

 · **14.2 Ordnungsgemäße UN-Versandbezeichnung**  
 · **ADR** 3265 ÄTZENDER SAURER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (Glutaral), UMWELTGEFÄHRDEND  
 · **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)

 · **14.3 Transportgefahrenklassen**

 · **ADR**

 · **Klasse** 8 Ätzende Stoffe  
 · **Gefahrzettel** 8+6.1

 · **IMDG**

 · **Class** 8 Ätzende Stoffe  
 · **Label** 8/6.1

 · **IATA**

 · **Class** 8 Ätzende Stoffe  
 · **Label** 8 (6.1)

 · **14.4 Verpackungsgruppe**

 · **ADR, IMDG, IATA** II

 · **14.5 Umweltgefahren:** Das Produkt enthält umweltgefährdende Stoffe: Glutaral

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· <b>Besondere Kennzeichnung (ADR):</b>	Symbol (Fisch und Baum)
· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>	Achtung: Ätzende Stoffe
· <b>Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):</b>	88
· <b>EMS-Nummer:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b>	Nicht anwendbar.
· <b>Transport/weitere Angaben:</b>	
· <b>ADR</b>	
· <b>Begrenzte Menge (LQ)</b>	1L
· <b>Freigestellte Mengen (EQ)</b>	Code: E2 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 500 ml
· <b>Beförderungskategorie</b>	2
· <b>Tunnelbeschränkungscode</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 ÄTZENDER SAURER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (GLUTARAL), 8 (6.1), II, UMWELTGEFÄHRDEND

### ABSCHNITT 15: Rechtsvorschriften

· **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**

· **Richtlinie 2012/18/EU**

· **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.

· **Seveso-Kategorie**

H2 AKUT TOXISCH

E1 Gewässergefährdend

· **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 50 t**

· **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 200 t**

· **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3

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

Keiner der Inhaltsstoffe ist enthalten.

· **VERORDNUNG (EU) 2019/1148**

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

Keiner der Inhaltsstoffe ist enthalten.

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

Keiner der Inhaltsstoffe ist enthalten.

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

Keiner der Inhaltsstoffe ist enthalten.

**· 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 %
Wasser	29,5
I	70,5

**· Wassergefährdungsklasse: WGK 3 (Selbsteinstufung): stark wassergefährdend.**
**· Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**

Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe

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

111-30-8 | Glutaral

67-56-1 | Methanol

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

### ABSCHNITT 16: Sonstige Angaben

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

**· Relevante Sätze**

H225 Flüssigkeit und Dampf leicht entzündbar.

H301 Giftig bei Verschlucken.

H302 Gesundheitsschädlich bei Verschlucken.

H312 Gesundheitsschädlich bei Hautkontakt.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H317 Kann allergische Hautreaktionen verursachen.

H330 Lebensgefahr bei Einatmen.

H332 Gesundheitsschädlich bei Einatmen.

H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

H335 Kann die Atemwege reizen.

H370 Schädigt die Organe.

H400 Sehr giftig für Wasserorganismen.

H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

**· 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)

LC50: Lethal concentration, 50 percent

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*LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2**Acute Tox. 3: Akute Toxizität – Kategorie 3**Acute Tox. 4: Akute Toxizität – Kategorie 4**Acute Tox. 2: Akute Toxizität – Kategorie 2**Skin Corr. 1B: Hautreizende/-ätzende Wirkung – Kategorie 1B**Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1**Resp. Sens. 1: Sensibilisierung der Atemwege – Kategorie 1**Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1**Skin Sens. 1A: Sensibilisierung der Haut – Kategorie 1A**STOT SE 1: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 1**STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3**Aquatic Acute 1: Gewässergefährdend - akut gewässergefährdend – Kategorie 1**Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2*

DE

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

Stampato il: 10.05.2022

Revisione: 10.05.2022

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** Glutaraldehyde 70% EM Grade

· **Articolo numero:** 16350, 16360-SP, 16360, 16365

· **UFI:** HNC5-K0GK-J004-SNPM

· **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)

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: [www.sichim.com](http://www.sichim.com)

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

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

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

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



GHS06 teschio e tibie incrociate

Acute Tox. 3      H301 Tossico se ingerito.

Acute Tox. 2      H330 Letale se inalato.



GHS08 pericolo per la salute

Resp. Sens. 1      H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.



GHS05 corrosione

Skin Corr. 1B      H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Eye Dam. 1      H318 Provoca gravi lesioni oculari.



GHS09 ambiente

(continua a pagina 2)

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

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**Denominazione commerciale: Glutaraldehyde 70% EM Grade**

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*Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.*

*Aquatic Chronic 2 H411 Tossico per gli organismi acquatici con effetti di lunga durata.*



GHS07

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

*STOT SE 3 H335 Può irritare le vie respiratorie.*

### · 2.2 Elementi dell'etichetta

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

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

#### · Pittogrammi di pericolo



GHS05

GHS06

GHS08

GHS09

#### · Avvertenza Pericolo

#### · Componenti pericolosi che ne determinano l'etichettatura:

glutarale

#### · Indicazioni di pericolo

*H301 Tossico se ingerito.*

*H330 Letale se inalato.*

*H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.*

*H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.*

*H317 Può provocare una reazione allergica cutanea.*

*H335 Può irritare le vie respiratorie.*

*H400 Molto tossico per gli organismi acquatici.*

*H411 Tossico per gli organismi acquatici con effetti di lunga durata.*

#### · Consigli di prudenza

*P301+P310 IN CASO DI INGESTIONE: contattare immediatamente un CENTRO ANTIVELENI/un medico.*

*P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle [o fare una doccia].*

*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.*

*P320 Trattamento specifico urgente (vedere su questa etichetta).*

*P362+P364 Togliere tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.*

*P405 Conservare sotto chiave.*

*P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.*

### · 2.3 Altri pericoli

#### · Risultati della valutazione PBT e vPvB

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

## SEZIONE 3: Composizione/informazioni sugli ingredienti

### · 3.2 Caratteristiche chimiche: Miscela

· **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

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· <b>Sostanze pericolose:</b>		
CAS: 111-30-8 EINECS: 203-856-5	glutarale ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	metanolo ⚠ Flam. Liq. 2, H225; ⚠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%
· <b>SVHC</b>		
111-30-8	glutarale	
67-56-1	metanolo	

· **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:**

Allontanare immediatamente gli abiti contaminati dal prodotto.

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.

Levarsi la maschera protettiva solamente dopo aver tolto gli abiti contaminati.

In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.

· **Inalazione:**

Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di un medico.

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

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

· **Contatto con gli occhi:**

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

· **Ingestione:**

Non provocare il vomito, chiamare subito il medico.

Bere abbondante acqua e sostare in zona ben areata. Richiedere immediatamente l'intervento del medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

### SEZIONE 5: Misure antincendio

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.

· **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**

Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.

· **6.2 Precauzioni ambientali:**

In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.

Diluire abbondantemente con acqua.

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

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

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

Utilizzare mezzi di neutralizzazione.

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

· **6.4 Riferimento ad altre sezioni**

Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.

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

Per informazioni relative allo smaltimento vedere Capitolo 13.

### SEZIONE 7: Manipolazione e immagazzinamento

· **7.1 Precauzioni per la manipolazione sicura**

Accurata ventilazione/aspirazione nei luoghi di lavoro.

Aprire e manipolare i recipienti con cautela.

Evitare la formazione di aerosol.

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

· **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**

· **Stoccaggio:**

· **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.

· **Indicazioni sullo stoccaggio misto:** Non necessario.

· **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.

· **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

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

· **8.1 Parametri di controllo**

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

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

**111-30-8 glutarale**

TWA	Limite Ceiling: 0,2 mg/m <sup>3</sup> , 0,05 ppm sen, A4
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**67-56-1 metanolo**

TWA	Valore a breve termine: 328 mg/m <sup>3</sup> , 250 ppm Valore a lungo termine: 262 mg/m <sup>3</sup> , 200 ppm Cute, IBE
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VL	Valore a lungo termine: 260 mg/m <sup>3</sup> , 200 ppm Cute
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· **Componenti con valori limite biologici:**

**67-56-1 metanolo**

IBE	15 mg/l Campioni: urine Momento del prelievo: a fine turno Indicatore biologico: metanolo
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· **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

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- **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.  
Custodire separatamente l'equipaggiamento protettivo.  
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:**



Guanti protettivi

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

- **Materiale dei guanti**  
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego
- **Tempo di permeazione del materiale dei guanti**  
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
- **Occhiali protettivi:**



Occhiali protettivi a tenuta

### SEZIONE 9: Proprietà fisiche e chimiche

- **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**
- **Indicazioni generali**
- **Aspetto:**

· <b>Forma:</b>	Liquido
· <b>Colore:</b>	Traslucido
· <b>Odore:</b>	Simile alla frutta
· <b>Soglia olfattiva:</b>	Non definito.
- **valori di pH:** Non definito.
- **Cambiamento di stato**

· <b>Punto di fusione/punto di congelamento:</b>	-21 °C
· <b>Punto di ebollizione iniziale e intervallo di ebollizione:</b>	100,5 °C
- **Punto di infiammabilità:** Non applicabile.

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· <b>Infiammabilità (solidi, gas):</b>	Non applicabile.
· <b>Temperatura di decomposizione:</b>	Non definito.
· <b>Temperatura di autoaccensione:</b>	Prodotto non autoinfiammabile.
· <b>Proprietà esplosive:</b>	Prodotto non esplosivo.
· <b>Limiti di infiammabilità:</b>	
<b>Inferiore:</b>	Non definito.
<b>Superiore:</b>	Non definito.
· <b>Tensione di vapore a 20 °C:</b>	0,3 hPa
· <b>Densità a 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Solventi organici:</b>	0,5 %
<b>Acqua:</b>	29,5 %
<b>VOC (CE)</b>	0,50 %
<b>Contenuto solido:</b>	0,0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

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

### SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta**
- Tossico se ingerito.
- Letale se inalato.

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

**111-30-8 glutarale**

Orale	LD50	134 mg/kg (rat)
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Cutaneo	LD50	2.560 mg/kg (rabbit)
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- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca gravi lesioni oculari.
- **Sensibilizzazione respiratoria o cutanea**  
Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.  
Può provocare una reazione allergica cutanea.
- **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 irritare le vie respiratorie.
- **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.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:**  
Molto tossico per i pesci.  
Tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
Pericolosità per le acque classe 3 (D) (Autoclassificazione): molto pericoloso  
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature, anche in piccole dosi.  
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.  
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di quantità minime di prodotto.  
Tossico per pesci e plancton.  
Molto tossico per gli organismi acquatici  
tossico per gli organismi acquatici
- **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.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

· **14.1 Numero ONU**

· **ADR, IMDG, IATA**

UN3265

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

· **ADR**

3265 LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S.  
(glutarale), PERICOLOSO PER L'AMBIENTE

· **IMDG, IATA**

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)

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

· **ADR**



· **Classe**

8 Materie corrosive

· **Etichetta**

8+6.1

· **IMDG**



· **Class**

8 Materie corrosive

· **Label**

8/6.1

· **IATA**



· **Class**

8 Materie corrosive

· **Label**

8 (6.1)

· **14.4 Gruppo di imballaggio**

· **ADR, IMDG, IATA**

II

· **14.5 Pericoli per l'ambiente:**

Il prodotto contiene materie pericolose per l'ambiente:  
glutarale

· **Marcatura speciali (ADR):**

Simbolo (pesce e albero)

· **14.6 Precauzioni speciali per gli utilizzatori**

Attenzione: Materie corrosive

· **N° identificazione pericolo (Numero Kemler):**

88

· **Numero EMS:**

F-A,S-B

· **Segregation groups**

Acids

· **Stowage Category**

B

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· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>	Non applicabile.
· <b>Trasporto/ulteriori indicazioni:</b>	
· <b>ADR</b>	
· <b>Quantità limitate (LQ)</b>	1L
· <b>Quantità esenti (EQ)</b>	Codice: E2 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 500 ml
· <b>Categoria di trasporto</b>	2
· <b>Codice di restrizione in galleria</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S. (GLUTARALE), 8 (6.1), II, PERICOLOSO PER L'AMBIENTE

### SEZIONE 15: Informazioni sulla regolamentazione

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

· **Direttiva 2012/18/UE**

· **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.

· **Categoria Seveso**

H2 TOSSICITÀ ACUTA

E1 Pericoloso per l'ambiente acquatico

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t**

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**

· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3

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

Nessuno dei componenti è contenuto.

· **REGOLAMENTO (UE) 2019/1148**

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Classe	quota in %
NC	0,5

· **Ulteriori disposizioni, limitazioni e decreti proibitivi**· **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

111-30-8	glutarale
67-56-1	metanolo

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.**SEZIONE 16: Altre informazioni**

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

· **Frasi rilevanti**

H225 Liquido e vapori facilmente infiammabili.

H301 Tossico se ingerito.

H302 Nocivo se ingerito.

H312 Nocivo per contatto con la pelle.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H330 Letale se inalato.

H332 Nocivo se inalato.

H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.

H335 Può irritare le vie respiratorie.

H370 Provoca danni agli organi.

H400 Molto tossico per gli organismi acquatici.

H411 Tossico per gli organismi acquatici con effetti di lunga durata.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Liquidi infiammabili – Categoria 2

Acute Tox. 3: Tossicità acuta – Categoria 3

Acute Tox. 4: Tossicità acuta – Categoria 4

Acute Tox. 2: Tossicità acuta – Categoria 2

Skin Corr. 1B: Corrosione/irritazione della pelle – Categoria 1B

Eye Dam. 1: Gravi lesioni oculari/irritazione oculare – Categoria 1

Resp. Sens. 1: Sensibilizzazione delle vie respiratorie – Categoria 1

Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1

Skin Sens. 1A: Sensibilizzazione della pelle – Categoria 1A

STOT SE 1: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 1

STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3

Aquatic Acute 1: Pericoloso per l'ambiente acquatico - pericolo acuto per l'ambiente acquatico – Categoria 1

Aquatic Chronic 2: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 2

# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.05.10

バージョン番号: 1

改訂日: 2022.05.10

### 項目 1: 化学品及び会社情報

- ・製品識別子
- ・化学品の名称 Glutaraldehyde 70% EM Grade
- ・製品コード 16350, 16360-SP, 16360, 16365
- ・該当純物質または混合物の関連特定用途及び使用禁止用途 追加的な関連情報は得られていません。
- ・推奨用途 実験用化学物質
- ・安全データシートの供給元の詳細情報
- ・供給者の会社名称,住所及び電話番号  
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
- ・その他の情報問い合わせ先: Product safety department
- ・緊急連絡電話番号  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 項目 2: 危険有害性の要約

#### ・化学品のGHS分類



頭蓋骨と大たい骨

急性毒性(経口) 区分3

H301 飲み込むと有毒

急性毒性(吸入) 区分2

H330 吸入すると生命に危険



健康に危険

感受性(呼吸器) 区分1

H334 吸入するとアレルギー、ぜん(喘)息又は呼吸困難を起こすおそれ



腐食

皮膚腐食性/刺激性 区分1B

H314 重篤な皮膚の薬傷及び眼の損傷

重篤な眼の損傷性/眼刺激性 区分1

H318 重篤な眼の損傷



環境

水生環境有害性(急性毒性) 区分1

H400 水生生物に非常に強い毒性

水生環境有害性(慢性毒性) 区分2

H411 長期継続的影響によって水生生物に毒性



感受性(皮膚) 区分1

H317 アレルギー性皮膚反応を起こすおそれ

特定標的臓器有害性(単回暴露) 区分3 H335 呼吸器への刺激のおそれ

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- ・GHSラベル要素(絵表示又はシンボル,注意喚起語,危険有害性情報及び注意書き)
- ・GHSラベル要素  
本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。
- ・絵表示



GHS05 GHS06 GHS08 GHS09

- ・注意喚起語 危険
- ・危険と定められた成分をラベル表示:  
グルタルアルデヒド
- ・危険有害性情報  
飲み込むと有毒  
吸入すると生命に危険  
重篤な皮膚の薬傷及び目の損傷  
吸入するとアレルギー, ぜん(喘)息又は呼吸困難を起こすおそれ  
アレルギー性皮膚反応を起こすおそれ  
呼吸器への刺激のおそれ  
水生生物に非常に強い毒性  
長期継続的影響によって水生生物に毒性
- ・注意書き  
飲み込んだ場合: ただちに毒物センター/医師に連絡すること。  
皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水/シャワーで洗うこと。  
眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。  
特別な治療が緊急に必要である(このラベルのを見よ)。  
汚染された衣類を脱ぎ、再使用す場合には洗濯をすること。  
施錠して保管すること。  
現地/地域/国/国際規定に従い内容物・容器の露出
- ・GHS分類に関係しない又はGHSで扱われない他の危険有害性
- ・PBT(残留性、生物濃縮性、毒性物質)及びvPvB(高残留性、高生物濃縮性物質)アセスメント
- ・PBT(残留性、生物濃縮性、毒性物質): 情報なし
- ・vPvB(高残留性、高生物濃縮性物質): 情報なし

### 項目 3: 組成及び成分情報

- ・化学物質・混合物の区別: 混合物
- ・説明: 危険のない混ぜ合わせかたをした以下成分からなる混合物

#### 危険な含有成分:

111-30-8	グルタルアルデヒド ⚠ 急性毒性(経口) 区分3, H301; 急性毒性(吸入) 区分2, H330; ⚠ 感作性(呼吸器) 区分1, H334; ⚠ 皮膚腐食性/刺激性 区分1B, H314; ⚠ 水生環境有害性(急性毒性) 区分1, H400; 水生環境有害性(慢性毒性) 区分2, H411; ⚠ 感作性(皮膚) 区分1A, H317; 特定標的臓器有害性(単回暴露) 区分3, H335; 引火性液体 区分4, H227	>50-≤100%
67-56-1	メタノール ⚠ 引火性液体 区分2, H225; ⚠ 特定標的臓器有害性(単回暴露) 区分1, H370; ⚠ 急性毒性(経口) 区分4, H302; 急性毒性(経皮) 区分4, H312; 急性毒性(吸入) 区分4, H332	≤2.5%

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### 項目 4: 応急措置

- ・ 応急手当処置に関する説明
- ・ 一般情報:
  - プロダクトの付着した衣類は速やかに脱ぐこと
  - 中毒症状は時間がかなり経過した後に現れる場合もあるため、事故後最低 4 8 時間は医師の監視のもとで過ごすこと
  - 呼吸防護マスクは汚染衣服を脱いだ後にはずすこと
  - 呼吸が不規則な場合あるいは呼吸停止の際には人工呼吸器を使用のこと
- ・ 吸入した場合
  - 外気もしくは酸素を送り込む、医者への助けを借りる
  - 意識不明の場合には安定させた状態で横向きに寝かせ、移送する
- ・ 皮膚に付着した場合 即刻石鹼と水で洗い、よくすすぐ
- ・ 眼に入った場合 瞼を開けたまま、流水で何分間か眼をすすぎ、医者に相談する
- ・ 飲み込んだ場合
  - 吐かずに、即医者を呼ぶ
  - 十分水を飲み、外気を吸う。速やかに医者を呼ぶ
- ・ 急性症状及び遅発性症状の最も重要な徴候症状 追加的な関連情報は得られていません。
- ・ 何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

### 項目 5: 火災時の措置

- ・ 消火剤
- ・ 適切な消火剤 周辺の状況に合わせた消火措置を取る
- ・ 本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。
- ・ 消火活動を行う者の特別な保護具及び予防措置
- ・ 特別な保護装備: 呼吸保護マスクを着用

### 項目 6: 漏出時の措置

- ・ 人体に対する注意事項, 保護具及び緊急時措置 防護服を着用。防護服を着用していない人は近づけない
- ・ 環境に対する注意事項
  - 河川、下水処理施設に流れ込んだ場合には関係当局に連絡する
  - 大量の水で薄める
  - 下水処理施設、地上水あるいは地下水に達しないようにする
- ・ 封じ込め及び浄化の方法及び機材
  - 液体吸収材 (砂、珪藻土、酸結合剤、ユニバーサル結合剤、おがくず) で吸収する
  - 中和剤を使用
  - 13 項に下がい汚染材は廃棄物として処理する
  - 十分な換気を心がける
- ・ 他のセクションへの言及
  - 安全な取り扱い方に関しては 7 項を参照
  - 人の保護装備の情報に関しては 8 項を参照
  - 廃棄処分に関しては 13 項参照

### 項目 7: 取扱い及び保管上の注意

- ・ 取扱い
  - 作業場では十分な換気、埃を吸い取るよう心がける
  - 容器は十分に注意しながら開封し、取り扱う
  - エアゾールの発生を防ぐ

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- ・火災および爆発防止に関する注意事項: 呼吸保護装置を用意しておく
- ・混融危険性を含めた安全貯蔵条件
- ・保管
- ・保管スペースおよび容器に関する要求事項: 特別な要求事項なし
- ・同じ場所に保管する際の注意事項: 必要ない
- ・保管条件に関するその他の注意事項: 容器は密閉した状態に保つ
- ・特定の最終用途 追加的な関連情報は得られていません。

### 項目 8: ばく露防止及び保護措置

#### ・許容濃度等

##### ・作業場において限界値の監視を要する成分:

111-30-8 グルタルアルデヒド

OEL | 最大許容濃度: 0.03 ppm

67-56-1 メタノール

OEL | 長期値: 260 mg/m<sup>3</sup>, 200 ppm

##### ・生物学的許容値を持つ原料:

67-56-1 メタノール

OEL-B | 20 mg/l

試料: urine

試料採取時期: End of shift

物質: Methanol

##### ・追加注意事項: 生成時に有効なリストがもとなっている

#### ・設備対策

##### ・技術設備の形体に関する追加注意事項: その他の申し立てなし、7 項参照

#### ・保護具

##### ・一般防止措置および衛生措置:

食物、飲み物、飼料からは遠ざける

汚れのしみ込んだ衣類は即刻脱ぐ

休憩の前、作業終了後には手を洗う

防護服は別に保管する

眼に入らないように

眼に入らないよう、また皮膚に接触しないよう注意する

##### ・呼吸保護器具:

短時間

もしくは負担が小さい場合には呼吸フィルター付装置を、集中的にあるいは長時間触れる場合には、酸素ボンベ付き呼吸

保護装備を使用すること

##### ・手の保護:



保護手袋

手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあってはならない  
 テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるものはない  
 浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する

##### ・手袋材

適当な手袋は材質だけではなく、その他の品質によっても変わり、各メーカーによって異なる。  
 調合する際の物質は複数の成分から生成されるため、手袋材の耐久性は予想できない。このため使用前には必ずチェックしなければならない

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



密閉式保護めがね

### 項目 9: 物理的及び化学的性質

- 基本的な物理及び化学特性に関する情報
- 一般指示事項
- 物理状態 液状
- 色 半透明
- 臭い 果実のような
- 嗅覚閾値 決まっていない。
- 融点／凝固点(混合物の場合は,記載省略可) -21 °C
- 沸点又は初留点及び沸点範囲 100.5 °C
- 可燃性 情報なし
- 爆発下限界及び爆発上限界／可燃限界
- 下限: 決まっていない。
- 上限: 決まっていない。
- 引火点 情報なし
- 分解温度 決まっていない。
- pH 決まっていない。
- 粘性:
- 動粘性率 決まっていない。
- 力学的: 決まっていない。
- 溶解度(混合物の場合は,記載省略可)
- 水: 完全に混合できる
- n-
- オクタノール／水分配係数(log値)(混合物の場合は,記載省略可) 決まっていない。
- 蒸気圧 約 20 °C 0.3 hPa
- 密度及び／又は相対密度
- 密度 約 20 °C: 1.129 g/cm<sup>3</sup>
- 相対的密度 決まっていない。
- 蒸気密度 決まっていない。
- その他のデータ
- 外観
- 形: 液体
- 健康および環境保護ならびに安全に関する重要な指示事項
- 自然発火点 プロダクトは自然発火しない
- 爆発の危険: プロダクトは爆発する危険はない
- 溶剤含有量:
- 有機溶剤: 0.5 %
- 水: 29.5 %
- 固形物含有量: 0.0 %

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- ・状態の変化
- ・気化速度

決まっていない。

### 項目 10: 安定性及び反応性

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

### 項目 11: 有害性情報

- ・毒性学的影響に関する情報
- ・急性毒性
- 飲み込むと有毒
- 吸入すると生命に危険

- ・分類上の LD/LC50 値:

111-30-8 グルタルアルデヒド

口 LD50 134 mg/kg (rat)

皮膚 LD50 2,560 mg/kg (rabbit)

- ・皮膚腐食性/刺激性 重篤な皮膚の薬傷及び眼の損傷
- ・眼に対する重篤な損傷性/眼刺激性 重篤な眼の損傷
- ・呼吸器感作性又は皮膚感作性
- 吸入するとアレルギー、ぜん(喘)息又は呼吸困難を起こすおそれ
- アレルギー性皮膚反応を起こすおそれ
- ・特定標的臓器毒性(単回ばく露) 呼吸器への刺激のおそれ
- ・誤えん有害性 追加的な関連情報は得られていません。

### 項目 12: 環境影響情報

- ・毒性
- ・水生生物に対する毒性: 追加的な関連情報は得られていません。
- ・残留性・分解性 追加的な関連情報は得られていません。
- ・生態蓄積性 追加的な関連情報は得られていません。
- ・土壤中の移動性 追加的な関連情報は得られていません。
- ・PBT(残留性、生物濃縮性、毒性物質)及びvPvB(高残留性、高生物濃縮性物質)アセスメント
- ・PBT(残留性、生物濃縮性、毒性物質): 情報なし
- ・vPvB(高残留性、高生物濃縮性物質): 情報なし
- ・オゾン層への有害性 追加的な関連情報は得られていません。
- ・他の副作用
- ・注:
- 魚類に対して毒性が非常に高い
- 魚類に対して毒性が高い
- ・その他のエコロジーに関する注意事項:
- ・一般注意事項:
- 水への危険度分類 3 (ドイツの規定) (自己査定): 水に対する危険性が大きい

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地下水、河川あるいは下水施設に極少量でも流してはならない  
 希薄せずあるいは中和せずに、廃水もしくは導水路に流してはならない  
 地下に極少量流れ込んでも飲料水を汚染する  
 水域においては魚やプランクトンにも毒性がある  
 水生生物にとり非常に毒性が高い  
 水生生物にとり毒性が高い

### 項目 13: 廃棄上の注意

- ・ 化学品(残余廃棄物) , 当該化学品が付着している汚染容器及び包装の安全で , かつ , 環境上望ましい廃棄,又はリサイクルに関する情報
- ・ 勧告: 家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない
- ・ 洗浄されていないパッケージ:
- ・ 勧告: 関係当局の規則に従って処分する
- ・ 推薦する洗剤: 水、場合に応じて洗剤も使って

### 項目 14: 輸送上の注意

<ul style="list-style-type: none"> <li>・ 国連番号</li> <li>・ ADR, IMDG, IATA</li> </ul>	UN3265
<ul style="list-style-type: none"> <li>・ 品名(国連輸送名)</li> <li>・ ADR</li> <li>・ IMDG, IATA</li> </ul>	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (グルタルアルデヒド), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
<ul style="list-style-type: none"> <li>・ 国連分類(輸送における危険有害性クラス)</li> <li>・ ADR</li> </ul>	
<ul style="list-style-type: none"> <li>・ 分類</li> <li>・ 危険物ラベル</li> </ul>	8 腐食性成分 8+6.1
<ul style="list-style-type: none"> <li>・ IMDG</li> </ul>	
<ul style="list-style-type: none"> <li>・ Class</li> <li>・ Label</li> </ul>	8 腐食性成分 8/6.1
<ul style="list-style-type: none"> <li>・ IATA</li> </ul>	
<ul style="list-style-type: none"> <li>・ Class</li> </ul>	8 腐食性成分

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・Label	8 (6.1)
・容器等級 ・ADR, IMDG, IATA	II
・環境危険: ・特別マーキング (ADR):	このプロダクトには環境に毒性のある成分が含まれている : グルタルアルデヒド シンボル (魚やツリー)
・ユーザー用特別予防措置 ・ケムラー符号: ・EMS (電子メールサービスナンバー) 番号: ・Segregation groups ・Stowage Category ・Stowage Code	警告: 腐食性成分 88 F-A,S-B Acids B SW2 Clear of living quarters.
・MARPOL73/78附属書II及びIBCコードによるばら積み 輸送される液体物質	情報なし
・輸送/その他の説明:	
・ADR ・Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
・IMDG ・Limited quantities (LQ) ・Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
・UN "模範規制":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N . O . S . (グルタルアルデヒド), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

### 項目 15: 適用法令

- ・該当法令の名称及びその法令に基づく規制に関する情報 追加的な関連情報は得られていません。
- ・化審法

#### ・既存化学物質

111-30-8	グルタルアルデヒド	2-509
67-56-1	メタノール	2-201

#### ・特定化学物質

内容成分はリストアップされていない

#### ・監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質

111-30-8	グルタルアルデヒド	旧第二
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#### ・優先評価化学物質

67-56-1	メタノール
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#### ・白物質

内容成分はリストアップされていない

(9ページに続く)

# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.05.10

バージョン番号: 1

改訂日: 2022.05.10

化学品の名称 Glutaraldehyde 70% EM Grade

(8ページの続き)

・既存化学物質安全性点検結果(分解性・蓄積性)		
111-30-8	グルタルアルデヒド	
67-56-1	メタノール	
・既存化学物質安全性点検結果(毒性)		
内容成分はリストアップされていない		
・PRTR 制度 - 第一種指定化学物質		
111-30-8	グルタルアルデヒド	1-85
・PRTR 制度 - 特定第一種指定化学物質		
内容成分はリストアップされていない		
・PRTR 制度 - 第二種指定化学物質		
内容成分はリストアップされていない		
・毒物及び劇物取締法:劇物		
67-56-1	メタノール	
・毒物及び劇物取締法:有機シアン化合物から除かれるもの		
内容成分はリストアップされていない		
・毒物及び劇物取締法:毒物		
内容成分はリストアップされていない		
・毒物及び劇物取締法:特定毒物		
内容成分はリストアップされていない		
・労働安全衛生法		
・危険物		
・爆発性の物(施行令別表第1第1号)		
内容成分はリストアップされていない		
・発火性の物(施行令別表第1第2号)		
内容成分はリストアップされていない		
・酸化性の物(施行令別表第1第3号)		
内容成分はリストアップされていない		
・引火性の物(施行令別表第1第4号)		
67-56-1	メタノール	
・可燃性のガス(施行令別表第1第5号)		
内容成分はリストアップされていない		
・特定化学物質等		
・第一類物質		
内容成分はリストアップされていない		
・第二類物質		
内容成分はリストアップされていない		
・第三類物質		
内容成分はリストアップされていない		
・名称等を通知すべき有害物(別表第9)		
111-30-8	グルタルアルデヒド	139
67-56-1	メタノール	560
・製造許可物質		
内容成分はリストアップされていない		

(10ページに続く)

# 安全データシート

## JIS Z 7253:2019 による

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化学品の名称 **Glutaraldehyde 70% EM Grade**

(9ページの続き)

・鉛中毒予防規則(施行令別表第4)

内容成分はリストアップされていない

・四アルキル鉛中毒予防規則(施行令別表第5)

内容成分はリストアップされていない

・有機溶剤中毒予防規則第(施行令別表第6の2)

・第一種有機溶剤等

内容成分はリストアップされていない

・第二種有機溶剤等

67-56-1 メタノール

・第三種有機溶剤等

内容成分はリストアップされていない

・強い変異原性が認められた化学物質

111-30-8 グルタルアルデヒド

・消防法

111-30-8 グルタルアルデヒド

67-56-1 メタノール

・海洋汚染防止法

111-30-8 グルタルアルデヒド

67-56-1 メタノール

・特定物質等の規制等によるオゾン層の保護に関する法律

・特定物質代替物質

内容成分はリストアップされていない

・特定物質

内容成分はリストアップされていない

・大気汚染防止法

111-30-8 グルタルアルデヒド

67-56-1 メタノール

・水質汚濁防止法

・有害物質

内容成分はリストアップされていない

・指定物質

内容成分はリストアップされていない

・GHS ラベル要素

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

・絵表示



GHS05 GHS06 GHS08 GHS09

・注意喚起語 危険

・危険と定められた成分をラベル表示:

グルタルアルデヒド

(11ページに続く)

# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.05.10

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### 化学品の名称 Glutaraldehyde 70% EM Grade

(10ページの続き)

#### 危険有害性情報

- 飲み込むと有毒
- 吸入すると生命に危険
- 重篤な皮膚の薬傷及び眼の損傷
- 吸入するとアレルギー, ぜん(喘)息又は呼吸困難を起こすおそれ
- アレルギー性皮膚反応を起こすおそれ
- 呼吸器への刺激のおそれ
- 水生生物に非常に強い毒性
- 長期継続的影響によって水生生物に毒性

#### 注意書き

- 飲み込んだ場合: ただちに毒物センター/医師に連絡すること。
- 皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水/シャワーで洗うこと。
- 眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。
- 特別な治療が緊急に必要である(このラベルの見よ)。
- 汚染された衣類を脱ぎ、再使用す場合には洗濯をすること。
- 施錠して保管すること。

現地/地域/国/国際規定に従い内容物・容器の露出

- 化学物質の安全性評価: 化学物質安全性評価が遂行されていない

### 項目 16: その他の情報

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

#### 縮約と二文字語:

- ADR: Accord 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- 引火性液体 区分2: Flammable liquids – Category 2
- 引火性液体 区分4: Flammable liquids – Category 4
- 急性毒性(経口) 区分3: Acute toxicity – Category 3
- 急性毒性(経口) 区分4: Acute toxicity – Category 4
- 急性毒性(吸入) 区分2: Acute toxicity – Category 2
- 皮膚腐食性/刺激性 区分1B: Skin corrosion/irritation – Category 1B
- 重篤な眼の損傷性/眼刺激性 区分1: Serious eye damage/eye irritation – Category 1
- 感作性(呼吸器) 区分1: Respiratory sensitisation – Category 1
- 感作性(皮膚) 区分1: Skin sensitisation – Category 1
- 感作性(皮膚) 区分1A: Skin sensitisation – Category 1A
- 特定標的臓器有害性(単回暴露) 区分1: Specific target organ toxicity (single exposure) – Category 1
- 特定標的臓器有害性(単回暴露) 区分3: Specific target organ toxicity (single exposure) – Category 3
- 水生環境有害性(急性毒性) 区分1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- 水生環境有害性(慢性毒性) 区分2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

## 1 화학제품과 회사에 관한 정보

- 제품 식별자
  - 제품명: **Glutaraldehyde 70% EM Grade**
  - 상품번호: 16350, 16360-SP, 16360, 16365
  - 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
  - 제품의 권고 용도와 사용상의 제한: Glutaraldehyde 70% EM Grade
  - 제품의 권고 용도와 사용상의 제한: 실험실 화학품
  - 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
  - 제조자/수입자/유통업자 정보:
    - Electron Microscopy Sciences
    - 1560 Industry Road
    - USA-Hatfield, PA 19440
    - Tel: 215-412-8400 Fax: 215-412-8450
    - email: info@emsdiasum.com
    - www.emsdiasum.com
  - Samchang Commercial Co., Ltd.
    - Yeo Eui Do
    - PO Box 1110
    - Seoul, Korea
    - Tel: 82 2 703 3040
    - Fax: 82 2 717 3298
- 
- Daedok Science, Co. Ltd.
    - 34141 E10 Korea Advanced Institute of Science
    - Guseong-Dong, Yuseong-gu, Daejeon,
    - Korea
    - Phone: 82 42 710 2091
    - Fax: 82 42 367 0005
    - Website: www.labsmro.com
  - 추가적인 정보 획득 가능: Product safety department
  - 비상연락 전화번호:
    - ChemTrec 1-800-424-9300 Contract CCN7661
    - 1-703-527-3887

## 2 유해성·위험성

- 순물질 또는 혼합물의 분류



두개골과 대퇴골

급성 독성 - 경구 - 구분3

H301 삼키면 유독함

급성 독성 - 흡입 - 구분2

H330 흡입하면 치명적임



건강에 위험

호흡기 과민성 - 구분1

H334 흡입시 알레르기성 반응, 천식 또는 호흡 곤란 등을 일으킬 수 있음



부식

(2 쪽에 계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

**제품명: Glutaraldehyde 70% EM Grade**

(1 쪽부터 계속)

피부 부식성/피부 자극성 - 구분 1      H314 피부에 심한 화상과 눈에 손상을 일으킴  
심한 눈 손상성/눈 자극성 - 구분1      H318 눈에 심한 손상을 일으킴



수생환경 유해성 - 급성 - 구분1      H400 수생생물에 매우 유독함  
수생환경 유해성 - 만성 - 구분2      H411 장기적인 영향에 의해 수생생물에게 유독함



피부 과민성은 - 구분1      H317 알레르기성 피부 반응을 일으킬 수 있음  
특정표적장기 독성 - 1회 노출- 구분3      H335 호흡기 자극을 일으킬 수 있음

**· 라벨표기 요소**

· **GHS 라벨 요소** 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

**· GHS 그림문자**



**· 신호어 위험**

**· 상표상에 명확히 위험성이 표시된 성분:**

글루타르알데히드

**· 유해·위험문구**

- 삼키면 유독함
- 흡입하면 치명적임
- 피부에 심한 화상과 눈에 손상을 일으킴
- 흡입시 알레르기성 반응, 천식 또는 호흡 곤란 등을 일으킬 수 있음
- 알레르기성 피부 반응을 일으킬 수 있음
- 호흡기 자극을 일으킬 수 있음
- 수생생물에 매우 유독함
- 장기적인 영향에 의해 수생생물에게 유독함

**· 예방조치문구**

- 삼켰을 시: 즉시 독성물질센터/병원 연락 필요.
- 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으시오/샤워하십시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
- 긴급히(라벨 참조) 처치를 하시오.
- 오염된 의복은 벗고 다시 사용 전 세척하십시오.
- 밀봉하여 저장하십시오.
- (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

**· 기타 유해성**

- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

KR

(3 쪽에 계속)



# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

**제품명: Glutaraldehyde 70% EM Grade**

(2 쪽부터 계속)

### 3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 혼합물
- **설 명:** 무해한 첨 가 물 이 함유된 아래에 열 거 된 물 질 로 만 들 어 진 혼 합 물.

· **위 험 요 소:**

111-30-8	글루타르알데히드 ⚠ 급성 독성 - 경구 - 구분3, H301; 급성 독성 - 흡입 - 구분2, H330; ⚠ 호흡기 과민성 - 구분1, H334; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 수생환경 유해성 - 급성 - 구분1, H400; 수생환경 유해성 - 만성 - 구분2, H411; ⚠ 피부 과민성은 - 구분1, H317; 특정표적장기 독성 - 1회 노출- 구분3, H335	>50-≤100%
67-56-1	메틸알코올 ⚠ 인화성 액체 - 구분2, H225; ⚠ 특정표적장기 독성 - 1회 노출- 구분1, H370; ⚠ 급성 독성 - 경구 - 구분4, H302; 급성 독성 - 경피 - 구분4, H312; 급성 독성 - 흡입 - 구분4, H332	≤2.5%

### 4 응급조치 요령

- **응급조치요령 내용**
- **일 반 적 정 보:**  
 이 제품에 의해 오염된 의상은 즉시 제거한다.  
 중 독 증 상 은 몇 시 간이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.  
 반드시 오염된 의상을 완전히 제거한 후에 호흡보호기를 떼어낸다.  
 불규칙적인 호흡이나 호흡정지상태에서는 인공호흡을 실시한다.
- **흡입했을 때:**  
 신선한 공기나 산소를 공급받고, 의료진의 도움을 구한다.  
 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 의사와 상담한다
- **먹었을 때:**  
 구토를 유발시키지 않는다. 즉시 의료진의 도움을 구한다.  
 물을 충분히 마시고 신선한 공기를 쐬다. 즉시 의사의 도움을 구한다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:** 주변 환경에 맞는 화재진화방법을 사용한다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 호흡보호장비 설치.

### 6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 안전장비 착용하고, 무방비의 사람은 격리시킨다.
- **환경 관련 예방조치:**  
 하천이나 하수도로 유입되었을 경우 해당 관청에 보고한다.  
 많은 물로 희석시킨다.  
 하수도망/해수면 위 물/지하수로 도달하지 않게 한다.

(4 쪽에 계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

**제품명: Glutaraldehyde 70% EM Grade**

(3 쪽부터계속)

- **밀폐 및 정화 방법과 소재:**  
액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.  
중성제를 사용한다.  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.
- **타 섹션 참조**  
안전 관리에 대한 정보는 제7 장을 참고하십시오.  
개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.  
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

## 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.  
조심스럽게 용기를 개봉하거나 취급한다.  
연무질이 형성되는 것을 피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 호흡보호장비를 항상 비치한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요 없음
- **보관 조건에 관한 추가적인 정보:** 용기를 새지 않게 밀폐한 채 보관한다.
- **구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.**

## 8 노출방지 및 개인보호구

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

· **화학물질의 노출기준, 생물학적 노출기준 등:**

### 111-30-8 글루타르알데히드

OELV (KR)	최고노출기준: 0.05 ppm
REL (US)	최고노출기준: 0.8 mg/m <sup>3</sup> , 0.2 ppm See Pocket Guide App. C
TLV (US)	최고노출기준: 0.05 ppm DSEN; RSEN ;activated or inactivated, A4

### 67-56-1 메틸알코올

OELV (KR)	단기간의값: 250 ppm 장기간의값: 200 ppm Skin
IOELV (EU)	장기간의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
PEL (US)	장기간의값: 260 mg/m <sup>3</sup> , 200 ppm
REL (US)	단기간의값: 325 mg/m <sup>3</sup> , 250 ppm 장기간의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV (US)	단기간의값: 250 ppm 장기간의값: 200 ppm Skin; BEI

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**제품명: Glutaraldehyde 70% EM Grade**

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**· 생물학적 허용값을 갖는 원료:**

**67-56-1 메틸알코올**

BEI (US)	15 mg/L
	Medium: urine
	Time: end of shift
	Parameter: Methanol (background, nonspecific)

· **추 가 정보:** 제 조 할 당시에 유 효 한 목 록을 기초로 사용했다.

· **노출 통제**

· **개인 보호구**

· **일반적보호조치및위생조치:**

식 료 품, 음 료 수와 사 료 로 부 터 멀 리 떨 어 뜨 려 놓 는 다.

더 러 워 지 거 나 음 료 수 가 묻 은 옷 은 즉 시 탈 의 한 다.

휴 식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.

방 호 복 은 따 로 보 관 한 다.

눈 과 의 접 촉 을 피 한 다.

눈 과 피 부 와 의 접 촉 은 피 한 다.

· **호흡기 보호:**

단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

· **손 보호:**



보 호 용 장 갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.

테 슣 트 를 하 지 않 았 기 때 문 에 제 품 / 조 제 / 화 학 혼 합 물 에 적 합 한 장 갑 재 질 에 대 한 추 천 이 없 다.

투 과 시 간, 침 투 율 과 저 하 를 고 려 해 서 장 갑 재 료 를 선 택 한 다.

· **장갑의재료**

적 합 한 장 갑 의 선 정 은 재 질 차 이 뿐 아 니 라 품 질 기 준 의 차 이 도 고 려 하 여 이 루 어 져 야 하 고 제 조 업 종 에 따 라 서 도 다 르 게 선 정 되 어 야 한 다 .

제 품 은 다 양 한 재 료 로 부 터 의 조 제 로 이 루 어 지 는 것 이 기 때 문 에 , 장 갑 재 질 의 안 정 성 은 사 전 에 예 측 되 어 질 수 있 는 것 이 아 니 고 ,

반 드 시 사 용 전 에 (그 안 전 성 이) 체 크 되 어 져 야 한 다.

· **장 갑 재 료 의 투 과 시 간** 정 확 한 관 통 시 간 은 보 호 장 갑 제 조 자 에 의 하 여 인 지 되 고, 준 수 되 어 야 한 다.

· **눈 보호:**



꼭 조 이 는 보 안 경

## 9 물리화학적 특성

· **기본 물리 및 화학적 특성에 대한 정보**

· **일반정보**

· **외형**

· 물리적 상태:	액체
· 색:	투명한
· 냄새:	과일종류의
· 후각역치	알맞지않다.

· **pH:** 알맞지않다.

(6 쪽에계속)

물질안전보건자료  
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· 상태변화 녹는점/어는점: -21 °C 초기 끓는점과 끓는점 범위: 100.5 °C	
· 인화점:	해당사항 없음.
· 인화성(고체, 기체):	해당사항 없음.
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다
· 인화 또는 폭발 범위의 상한/하한 아래로: 위로:	알맞지않다. 알맞지않다.
· 증기압 의경우 20 °C:	0.3 hPa
· 밀도 의경우 20 °C:	1.129 g/cm <sup>3</sup>
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도: 물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학성: 동점성:	알맞지않다. 알맞지않다.
· 용매내용물 유기용매: 물: VOC (EU)	0.5 % 29.5 % 0.50 %
· 고체의 함량:	0.0 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

**10 안정성 및 반응성**

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

KR

(7 쪽에계속)

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## 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:

**111-30-8 글루타르알데히드**

구강의	LD50	134 mg/kg (rat)
피부의	LD50	2,560 mg/kg (rabbit)

- **일차적 자극 효과:**
- **피부 부식성 또는 자극성:** 피부와 점막에 강한 부식 작용.
- **심한 눈 손상 또는 자극성:**  
강한 부식 작용  
심각한 안구상처의 위험이 있는 강한 자극
- **감각화:**  
호흡을 통한 감각화가 가능하다.  
피부 접촉을 통하여 감각화가 가능하다.
- **추가적인 독성에 관한 정보:**  
이 제품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발표된 원고에서 아래 위험들의 사전 준비에 대하여 제시하고 있다.  
독성의  
건강에 해로운  
부식 작용의  
자극적인  
맹독성의  
삼킬 경우 식도나 위 등의 내장 기관 벽에 상처를 주는 위험과 마찬가지로 입 주변이나 구강에 강한 부식 작용을 한다

## 12 환경에 미치는 영향

- **독성**
- **수생 독성:** 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.
- **생태독성:**
- **의견:**  
어류에 매우 독성임  
어류에 독이 됨
- **추가적인 생태학 정보:**
- **일반 특징:**  
수질 오염 등급 3 (자체 등급 분류): 심하게 수질 오염이 된 지하수나, 하천으로 또는 하수도망에도 달하지 않게 한다. 역시 극소수의 양이라도 안 된다.  
희석시키지 않은 채 또는 중화시키지 않은 채 하수도나 배수로에도 달하지 않게 해야 한다.  
지하수로 아주 미세한 양이 유입되었을 경우 엔이미식수 오염 상태이다  
하천에서는 역시 물고기나 플랑크톤에게는 독성이 있다.  
물속의 유기체에 아주 독이 되는 것  
물속의 유기체에 독이 되는 것
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당 사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당 사항 없음.

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· 기타 부작용 추가적인 정보가 존재하지 않습니다.

(7 쪽부터계속)

## 13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.
- 추 천 세정제: 경우에따라서세제가첨가된물

## 14 운송에 필요한 정보

· 유엔 번호 · ADR, IMDG, IATA	UN3265
· UN 적정 선적명 · ADR · IMDG, IATA	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (글루타르알데히드), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
· 교통 위험 클래스 · ADR	8 부식작용하는물질 8+6.1
<div style="display: flex; justify-content: space-around; align-items: center;"> </div>	
· 등급 · 위험물 라벨	8 부식작용하는물질 8+6.1
· IMDG	
<div style="display: flex; justify-content: space-around; align-items: center;"> </div>	
· Class · Label	8 부식작용하는물질 8/6.1
· IATA	
<div style="display: flex; justify-content: space-around; align-items: center;"> </div>	
· Class · Label	8 부식작용하는물질 8 (6.1)
· 용기등급 · ADR, IMDG, IATA	II
· 환경적 유해물질: · 특수 마킹 (ADR):	이물질은환경오염물질을함유하고있다: 글루타르알데히드 심벌 (물고기와 나무)

(9 쪽에계속)

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<ul style="list-style-type: none"> <li>· 이용자 특별 예방조치</li> <li>· 위험 코드:</li> <li>· EMS-번호:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> <li>· Stowage Code</li> </ul>	<p>경고: 부식작용하는물질 88 F-A,S-B Acids B SW2 Clear of living quarters.</p>
<ul style="list-style-type: none"> <li>· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송</li> </ul>	
<ul style="list-style-type: none"> <li>· 운 송/추가 정보:</li> </ul>	
<ul style="list-style-type: none"> <li>· ADR</li> <li>· 한정 수량 (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> <li>· 운송 구분</li> <li>· 터널 제한 코드</li> </ul>	<p>2 E</p>
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> <li>· UN "모범 규제":</li> </ul>	<p>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (글루타르알데히드), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS</p>

## 15 법적 규제 현황

· 산업안전보건법에 의한 규제:		
· 제조 등 금지물질:		
어떠한내용물도 목록화되어있지않다		
· 허가대상물질:		
어떠한내용물도 목록화되어있지않다		
· 관리대상유해물질:		
111-30-8	글루타르알데히드	
67-56-1	메틸알코올	
· 작업환경측정 대상 유해인자		
111-30-8	글루타르알데히드	1A1
67-56-1	메틸알코올	1A28
· 특수건강진단 대상 유해인자		
111-30-8	글루타르알데히드	1A2
67-56-1	메틸알코올	1A31
· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 추가적인 정보가 존재하지 않습니다.		
· Korean Existing Chemical Inventory		
111-30-8	글루타르알데히드	KE-27969

(10 쪽에계속)

물질안전보건자료  
GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

제품명: Glutaraldehyde 70% EM Grade

(9 쪽부터계속)

7732-18-5	물	KE-35400
67-56-1	메틸알코올	KE-23193

· 화학물질관리법

· 사고대비물질		
67-56-1	메틸알코올	

· 금지물질

어떠한내용물도목록화되어있지않다		
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· 제한물질

어떠한내용물도목록화되어있지않다		
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· 유독물질

111-30-8	글루타르알데히드	
67-56-1	메틸알코올	

· 허가물질

111-30-8	글루타르알데히드	
67-56-1	메틸알코올	

· 등록 또는 신고 면제대상 화학물질

7732-18-5	물	
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· '21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다		
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· 중점관리물질의 지정

· 표1 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다		
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· 표2 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다		
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· GHS 라벨 요소 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· GHS 그림문자



GHS05 GHS06 GHS08 GHS09

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

글루타르알데히드

· 유해·위험문구

- 삼키면 유독함
- 흡입하면 치명적임
- 피부에 심한 화상과 눈에 손상을 일으킴
- 흡입시 알레르기성 반응, 천식 또는 호흡 곤란 등을 일으킬 수 있음
- 알레르기성 피부 반응을 일으킬 수 있음
- 호흡기 자극을 일으킬 수 있음
- 수생생물에 매우 유독함
- 장기적인 영향에 의해 수생생물에게 유독함

· 예방조치문구

- 삼켰을 시: 즉시 독성물질센터/병원 연락 필요.
- 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으시오/샤워하십시오.

(11 쪽에계속)



# 물질안전보건자료

## GHS에 따라

인쇄일자: 2022.05.10

개정: 2022.05.10

**제품명: Glutaraldehyde 70% EM Grade**

(10 쪽부터계속)

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.  
 긴급히(라벨 참조) 처치를 하시오.  
 오염된 의복은 벗고 다시 사용 전 세척하십시오.  
 밀봉하여 저장하십시오.  
 (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.  
 · **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

### 16 그 밖의 참고사항

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 작성일자:** 2022.05.10

· **개정 횟수 및 최종 개정일자:** 1 / 2022.05.10

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

KR

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

### 1 化學品與廠商資料

- 產品識別者
- 化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade
- 商品編號: 16350, 16360-SP, 16360, 16365
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 物質或混合物的用途 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 危害辨識資料

#### · 緊急情況概述:

透明的, 液體, 吞食有毒。 皮膚接觸可能有害。 吸入致命。 造成嚴重皮膚灼傷和眼睛損傷。  
吸入可能導致過敏或哮喘病症狀或呼吸困難。 可能造成皮膚過敏。 可能造成呼吸道刺激。  
對水生生物毒性非常大。對水生生物有毒並具有長期持續影響。

#### · GHS危險性類別



骷髏和交叉骨

急毒性物質(吞食) 第3級

H301 吞食有毒

急毒性物質(吸入) 第2級

H330 吸入致命



健康危險

呼吸道過敏物質 第1級

H334 吸入可能導致過敏或哮喘病症狀或呼吸困難



腐蝕

腐蝕/刺激皮膚物質 第1B級

H314 造成嚴重皮膚灼傷和眼睛損傷

嚴重損傷/刺激眼睛物質 第1級

H318 造成嚴重眼睛損傷



環境

水環境之危害物質(急毒性) 第1級

H400 對水生生物毒性非常大

水環境之危害物質(慢毒性) 第2級

H411 對水生生物有毒並具有長期持續影響

(在 2 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 1 頁繼續)



皮膚過敏物質 第1級

H317 可能造成皮膚過敏

特定標的器官系統毒性物質(單一暴露) 第3級 H335 可能造成呼吸道刺激

急毒性物質(皮膚) 第5級

H313 皮膚接觸可能有害

### · 標籤要素

· **GHS標籤元素** 本產品根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

### · 象形圖



GHS05

GHS06

GHS08

GHS09

### · 警示詞 危險

### · 標籤上辨別危險的成份:

1,5- 戊二 醛

### · 危險性說明

吞食有毒

皮膚接觸可能有害

吸入致命

造成嚴重皮膚灼傷和眼睛損傷

吸入可能導致過敏或哮喘病症狀或呼吸困難

可能造成皮膚過敏

可能造成呼吸道刺激

對水生生物毒性非常大

對水生生物有毒並具有長期持續影響

### · 防範說明

### · 事故響應

如誤吞咽: 立即呼叫解毒中心/醫生

如皮膚(或頭髮)沾染: 立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。

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

緊急處置方法(參見本標示)。

脫掉沾染的衣服, 清洗後方可重新使用

### · 安全貯存

加鎖存放。

### · 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

### · 其他有害性

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

· PBT(殘留性、生物濃縮性、毒性物質) 不適用的

· vPvB(高殘留性、高生物濃縮性物質): 不適用的

## 3 成分辨識資料

### · 混合物

· 描述: 由以下含有無害添加劑的成分組成的混合物

(在 3 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 2 頁繼續)

**· 危險的成分:**

111-30-8	1,5- 戊二 醛 <ul style="list-style-type: none"> <li>☠ 急毒性物質(吞食) 第3級, H301; 急毒性物質(吸入) 第2級, H330;</li> <li>⚠ 呼吸道過敏物質 第1級, H334; ⚠ 腐蝕/刺激皮膚物質 第1B級, H314;</li> <li>⚠ 水環境之危害物質(急毒性) 第1級, H400; 水環境之危害物質(慢毒性) 第2級, H411; ⚠ 皮膚過敏物質 第1級, H317; 特定標的器官系統毒性物質(單一暴露) 第3級, H335; 易燃液體 第4級, H227; 急毒性物質(皮膚) 第5級, H313</li> </ul>	>50-≤100%
67-56-1	木精 <ul style="list-style-type: none"> <li>⚠ 易燃液體 第2級, H225; ⚠ 特定標的器官系統毒性物質(單一暴露) 第1級, H370;</li> <li>☠ 急毒性物質(吞食) 第4級, H302; 急毒性物質(皮膚) 第4級, H312;</li> <li>☠ 急毒性物質(吸入) 第4級, H332</li> </ul>	≤2.5%

**4 急救措施****· 應急措施要領****· 總說明:**

馬上脫下染有該產品的衣服。

中毒的症狀可能會在幾個小時以後才出現;因此在發生事故之後起碼要有 48 小時的醫療觀察。

只在徹底地脫去了已被汙染的衣服之後才能移走呼吸儀器。

萬一出現了不規則的呼吸或呼吸的阻礙,請為病人提供人工呼吸。

**· 吸入:**

供給新鮮空氣或氧氣;叫醫生。

萬一病人不清醒時,請讓病人側趟以便移動。

**· 皮膚接觸:** 馬上用水和肥皂進行徹底的沖洗。**· 眼睛接觸:** 張開眼睛在流水下沖洗數分鐘。然後諮詢醫生。**· 食入:**

切勿引發嘔吐;請馬上尋求醫療的協助。

喝大量的清水和提供新鮮的空氣。馬上召喚醫生。

**· 給醫生的資料:**

· **最重要的急慢性症狀及其影響** 無相關詳細資料。

· **需要及時的醫療處理及特別處理的症狀** 無相關詳細資料。

**5 滅火措施****· 滅火方法**

· **滅火的方法和滅火劑:** 使用適合四周環境的滅火措施。

· **特別危險性** 無相關詳細資料。

**· 特殊滅火方法**

· **消防人員特殊的防護裝備:** 口腔呼吸保護裝置。

**6 洩漏處理方法**

· **保護措施** 帶上保護儀器。讓未受到保護的人們遠離。

**· 環境保護措施:**

如果滲入了水源或汗水系統,請通知有關當局。

用大量的水進行稀釋。

切勿讓其進入下水道/水面或地下水。

**· 密封及淨化方法和材料:**

吸收液體粘合原料(沙粒、矽藻土、酸性粘合劑、通用粘合劑、鋸屑)。

使用中和劑。

(在 4 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 3 頁繼續)

- 根據第 13 條條款棄置受汙染物。  
確保有足夠的通風裝置。
- **參照其他部分**
  - 有關安全處理的資料請參閱第 7 節。
  - 有關個人保護裝備的資料請參閱第 8 節。
  - 有關棄置的資料請參閱第 13 節。

## 7 安全處置與儲存方法

- **操作處置**
- **儲存**
- 確保工作間有良好的通風/排氣裝置。
- 小心打開及處理貯藏器。
- 防止氣溶膠的形成。
- **有關火災及防止爆炸的資料:** 提供呼吸保護裝置。
- **混合危險性等安全儲存條件**
- **儲存:**
- **儲存庫和容器須要達到的要求:** 沒有特別的要求。
- **有關使用一個普通的儲存設施來儲存的資料:** 不需要。
- **有關儲存條件的更多資料:** 將容器密封。
- **具體的最終用戶** 無相關詳細資料。

## 8 暴露預防措施

- **工程控制方法:** 沒有進一步數據,見第 7 項。
- **控制變數**

### · 在工作場需要監控的限值成分

#### 111-30-8 1,5- 戊二 醛

PEL (TW)	PC-TWA: 0.82 mg/m <sup>3</sup> , 0.2 ppm
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#### 67-56-1 木精

PEL (TW)	PC-TWA: 262 mg/m <sup>3</sup> , 200 ppm
OEL (CN)	PC-STEL: 50 mg/m <sup>3</sup>
	PC-TWA: 25 mg/m <sup>3</sup>
	皮

- **額外的資料:** 制作期間有效的清單將作為基礎來使用。

### · 遺漏控制

#### · 個人防護設備:

#### · 一般保護和衛生措施:

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

#### · 呼吸系統防護:

- 如果曾短暫接觸或在低汙染的情況下
- 如果曾深入或較長時間接觸,請使用獨立的呼吸保護裝置。

請使用呼吸過濾裝置

(在 5 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 4 頁繼續)

## · 手防護:



保護手套

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

## · 手套材料

選擇合適的手套不單取決於材料, 亦取決於質量特征, 以及來自哪一間生產廠家, 因為該產品是由很多材料配制而成, 手套材料的抵抗力並不可預計, 所以, 必須在使用之前進行檢查

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

## · 眼睛防護:



密封的護目鏡

## 9 物理及化學性質

## · 有關基本物理及化學特性的資訊

## · 一般說明

## · 外觀:

· 形狀: 液體  
· 顏色: 透明的  
· 氣味: 類似水果  
· 嗅覺閾限 未決定.

· pH值: 未決定.

## · 條件的更改

· 熔點: -21 °C  
· 沸點/初沸點和沸程: 100.5 °C

· 閃點: 不適用的

· 可燃性 (固體、氣體): 不適用的

· 分解溫度: 未決定.

· 自燃溫度: 該產品是不自燃的

· 爆炸的危險性: 該產品並沒有爆炸的危險

## · 爆炸極限:

· 較低: 未決定.  
· 較高: 未決定.

· 蒸氣壓 在 20 °C: 0.3 hPa

· 密度 在 20 °C: 1.129 g/cm<sup>3</sup>

· 相對密度 未決定.

· 蒸氣密度 未決定.

· 蒸發速率 未決定.

(在 6 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 5 頁繼續)

· 溶解性	
水:	完全可拌和的
· n-辛醇/水分配係數:	未決定.
· 黏性:	
動態:	未決定.
運動學的:	未決定.
· 溶劑成份:	
有機溶劑:	0.5 %
水:	29.5 %
固體成份:	0.0 %
· 其他資訊	無相關詳細資料。

## 10 安定性及反應性

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

## 11 毒性資料

- 對毒性學影響的資訊
- 急性毒性:

- 與分類相關的 LD/ LC50 值:

111-30-8 1,5- 戊二 醛

口腔	LD50	134 mg/kg (rat)
皮膚	LD50	2,560 mg/kg (rabbit)

- 主要的刺激性影響:
- 皮膚: 在皮膚和粘膜上造成強烈的腐蝕性影響。
- 在眼睛上面:
  - 強烈的腐蝕性影響。
  - 強烈的刺激性和造成嚴重傷害眼睛的危險。
- 致敏作用:
  - 通過吸入可能造成敏化作用。
  - 通過皮膚接觸可能造成敏化作用。
- 更多毒物的資料:
 

根據有關配制的一般歐盟分類指南的計算方法 (刊印在最新版本),該產品顯示以下的危險:

  - 毒性的
  - 有害的
  - 腐蝕性的
  - 刺激性的
  - 非常毒性的

(在 7 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 6 頁繼續)

吞咽該產品除了導致口部和喉嚨出現強烈的腐蝕性現象之外,還有對食道和胃部造成穿孔的危險.

### 12 生態資料

- 生態毒性
- 水生毒性: 無相關詳細資料。
- 持久性和降解性 無相關詳細資料。
- 環境系統習性:
- 潛在的生物累積性 無相關詳細資料。
- 土壤內移動性 無相關詳細資料。
- 生態毒性的影響:
- 備注:
  - 對魚類有劇毒
  - 對魚類有毒
- 額外的生態學資料:
- 總括注解:
  - 水危害級別 3 (德國規例) (通過名單進行自我評估): 對水是極其危害的
  - 即使是小量., 不要讓該產品接觸地下水、水道或汗水系統.
  - 不要讓未被稀釋或未被中和的產品接觸下水道或排水溝渠.
  - 即使是極其小量的產品滲入地下也會對飲用水造成危險.
  - 對水體中的魚和浮遊生物也有毒害.
  - 對水中的有機物有劇毒.
  - 對水中的有機物有毒.
- PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果
- PBT(殘留性、生物濃縮性、毒性物質) 不適用的
- vPvB(高殘留性、高生物濃縮性物質): 不適用的
- 其他副作用 無相關詳細資料。

### 13 廢棄處置方法

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

### 14 運送資料

- |                   |  |
|-------------------|--|
| · 聯合國危險貨物編號(UN號)  |  |
| · ADR, IMDG, IATA | UN3265   |
| · UN適當裝船名         |  |
| · ADR             | 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5- 戊二 醛), 環境有害 |
| · IMDG, IATA      | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)       |

(在 8 頁繼續)



# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

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(在 7 頁繼續)

## · 運輸危險等級

## · ADR

· 級別  
· 標籤8 腐蝕性物質  
8+6.1

## · IMDG

· Class  
· Label8 腐蝕性物質  
8/6.1

## · IATA

· Class  
· Label8 腐蝕性物質  
8 (6.1)

## · 包裝組別

## · ADR, IMDG, IATA

II

## · 環境危害

## · 具體標記 (ADR):

該產品含有對環境有害的原料: 1,5- 戊二 醛  
象徵符號 (魚和樹)

## · 用戶特別預防措施

## · 危險編碼:

## · EMS 號碼:

## · Segregation groups

## · Stowage Category

## · Stowage Code

警告: 腐蝕性物質

88

F-A,S-B

Acids

B

SW2 Clear of living quarters.

· MARPOL73/78(針對船舶引起的海洋污染預防協約  
)附件書2及根據IBC Code(國際裝船貨物編碼)  
的大量運送

不適用的

## · 運輸/額外的資料:

## · ADR

## · Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

## · IMDG

## · Limited quantities (LQ)

## · Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

(在 9 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

在 2022.05.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: Glutaraldehyde 70% EM Grade

(在 8 頁繼續)

· UN "標準規定": UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5- 戊二 醛), 8 (6.1), II, 對環境有害

### 15 法規資料

- 對相應純物質或者混合物的安全、保健及環境法規/法律 無相關詳細資料。
- 優先管理化學品之指定及運作管理辦法

· 附表一-對於未滿十八歲及妊娠或分娩後未滿一年女性勞工具危害性之化學品

沒有列出成份

· 第二條第二款第一目

沒有列出成份

· 第二條第二款第二目

111-30-8 | 1,5- 戊二 醛

· 新化學物質及既有化學物質資料登錄辦法 英

沒有列出成份

· 中國現有化學物質名錄

列出所有成分

· TCSCA

· 列管編號

沒有列出成份

· 毒性分類

沒有列出成份

· 管制濃度(w/w%)

沒有列出成份

· 大量運作基準(公斤)

沒有列出成份

· 新化學物質及既有化學物質資料登錄辦法, 附表六

沒有列出成份

· TCSI - Taiwan Chemical Substance Inventory

列出所有成分

· GHS標籤元素 本產品根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 象形圖



GHS05 GHS06 GHS08 GHS09

· 警示詞 危險

· 標籤上辨別危險的成份:

1,5- 戊二 醛

· 危險性說明

吞食有毒

皮膚接觸可能有害

吸入致命

(在 10 頁繼續)

# 安全資料表

## 根據 危害性化學品標示及通識規則

打印日期 2022.05.10

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(在 9 頁繼續)

造成嚴重皮膚灼傷和眼睛損傷  
 吸入可能導致過敏或哮喘病症狀或呼吸困難  
 可能造成皮膚過敏  
 可能造成呼吸道刺激  
 對水生生物毒性非常大  
 對水生生物有毒並具有長期持續影響

· **防範說明**

· **事故響應**

如誤吞咽: 立即呼叫解毒中心/醫生  
 如皮膚(或頭髮)沾染: 立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。  
 如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。  
 緊急處置方法(參見本標示)。  
 脫掉沾染的衣服, 清洗後方可重新使用

· **安全貯存**

加鎖存放。

· **廢棄處置**

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· **化學物質安全性評價:** 尚未進行化學物質安全性評價

## 16 其他資料

該資料是基於我們目前的知識

然而,這並不構成對任何特定產品特性的擔保並且不建立一個法律上有有效的合同關係。

· **聯絡:**

· **縮寫:**

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累積性有毒物質

vPvB: very Persistent and very Bioaccumulative

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

易燃液體 第4級: Flammable liquids – Category 4

急性毒性物質(吞食) 第3級: Acute toxicity – Category 3

急性毒性物質(吞食) 第4級: Acute toxicity – Category 4

急性毒性物質(皮膚) 第5級: Acute toxicity – Category 5

急性毒性物質(吸入) 第2級: Acute toxicity – Category 2

腐蝕/刺激皮膚物質 第1B級: Skin corrosion/irritation – Category 1B

嚴重損傷/刺激眼睛物質 第1級: Serious eye damage/eye irritation – Category 1

呼吸道過敏物質 第1級: Respiratory sensitisation – Category 1

皮膚過敏物質 第1級: Skin sensitisation – Category 1

特定標的器官系統毒性物質(單一暴露) 第1級: Specific target organ toxicity (single exposure) – Category 1

特定標的器官系統毒性物質(單一暴露) 第3級: Specific target organ toxicity (single exposure) – Category 3

水環境之危害物質(急性) 第1級: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

水環境之危害物質(慢性) 第2級: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

# Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 10.05.2022

revidert den: 10.05.2022

## Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** Glutaraldehyde 70% EM Grade
- **Artikkelnummer:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**  
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**  
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)
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



GHS06 Dødningehode med korslagte knokler

Acute Tox. 3      H301 Giftig ved svelging.

Acute Tox. 2      H330 Dødelig ved innånding.



GHS08 Helsefare

Resp. Sens. 1      H334 Kan gi allergi eller astmasymptomer eller pustevansker ved innånding.



GHS05 Etsende virkning

Skin Corr. 1B      H314 Gir alvorlige etseskader på hud og øyne.

Eye Dam. 1      H318 Gir alvorlig øyeskade.



GHS09 Miljø

Aquatic Acute 1      H400 Meget giftig for liv i vann.

Aquatic Chronic 2      H411 Giftig, med langtidsvirkning, for liv i vann.



GHS07

(fortsatt på side 2)

# Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 10.05.2022

revidert den: 10.05.2022

**Handelsnavn: Glutaraldehyde 70% EM Grade**

(fortsatt fra side 1)

Skin Sens. 1 H317 Kan utløse en allergisk hudreaksjon.  
 STOT SE 3 H335 Kan forårsake irritasjon av luftveiene.

## · 2.2 Merkingselementer

### · Merking iht. bestemmelse (EC) Nr. 1272/2008

Produktet er klassifisert og merket i henhold til CLP-forordningen.

### · Farepiktogrammer



GHS05 GHS06 GHS08 GHS09

### · Varselord Fare

### · Farebestemmende komponenter ved etikettering:

glutaraldehyd

### · Faresetninger

H301 Giftig ved svelging.

H330 Dødelig ved innånding.

H314 Gir alvorlige etseskader på hud og øyne.

H334 Kan gi allergi eller astmasymptomer eller pustevansker ved innånding.

H317 Kan utløse en allergisk hudreaksjon.

H335 Kan forårsake irritasjon av luftveiene.

H400 Meget giftig for liv i vann.

H411 Giftig, med langtidsvirkning, for liv i vann.

### · Sikkerhetssetninger

P301+P310 VED SVELGING: Kontakt umiddelbart et GIFTINFORMASJONSSENTER/ en lege.

P303+P361+P353 VED HUDKONTAKT (eller håret): Tilsølte klær må fjernes straks. Skyll [eller dusj] huden med vann.

P305+P351+P338 VED KONTAKT MED ØYNE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.

P320 Særlig behandling kreves umiddelbart (se på etiketten).

P362+P364 Tilsølte klær må fjernes og vaskes før bruk.

P405 Oppbevares innelåst.

P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

### · 2.3 Andre farer

### · Resultater av PBT- og vPvB-vurdering

· PBT: Ikke brukbar.

· vPvB: Ikke brukbar.

## Avsnitt 3: Sammensetning/opplysninger om bestanddeler

### · 3.2 Kjemisk karakterisering: Stoffblandinger

· Beskrivelse: Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.

### · Farlige innholdsstoffer:

CAS: 111-30-8 EINECS: 203-856-5	glutaraldehyd 	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	metanol 	≤2,5%

(fortsatt på side 3)

# Sikkerhetsdatablad

## iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 10.05.2022

revidert den: 10.05.2022

**Handelsnavn: Glutaraldehyde 70% EM Grade**

(fortsatt fra side 2)

· <b>SVHC</b>	
111-30-8	glutaraldehyd
67-56-1	metanol

· **Ytterligere informasjon:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.

### Avsnitt 4: Førstehjelpstiltak

#### · 4.1 Beskrivelse av førstehjelpstiltak

##### · **Generelle informasjon:**

Klær som er tilsølt med produktet må fjernes omgående.

Forgiftningssymptomer kan også oppstå etter mange timer. Personer må derfor ha legetilsyn i minst 48 timer etter en ulykke.

Åndedrettsbeskyttelse må først fjernes etter at tilsølte klær er fjernet.

Kunstig åndedrett ved uregelmessig åndedrett eller åndedrettsstillstand.

##### · **Etter innånding:**

Tilførsel av frisk luft eller surstoff; søk legehjelp.

Ved bevisstløshet lagring og transport i stabil sidestilling.

##### · **Etter hudkontakt:** Vask straks med vann og sepe og skylle godt etterpå.

##### · **Etter øyekontakt:** Skylle øynene med åpne øyenlokk i flere minutter under rennende vann og tilkall lege.

##### · **Etter svelging:**

Ikke få pasienten til å kaste opp. Tilkall lege straks.

Drikk rikelig med vann og sørg for frisk luft. Tilkall lege omgående.

#### · 4.2 De viktigste symptomene og virkningene, både akutte og forsinkede

Ikke noe mer relevant informasjon tilgjengelig.

#### · 4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig

Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 5: Brannsløkkingsstiltak

#### · 5.1 Sløkkingsmidler

· **Egnede slukningsmidler:** Brannslukningstiltak tilpasses omgivelsene.

· **5.2 Særlige farer knyttet til stoffet eller stoffblandingen** Ikke noe mer relevant informasjon tilgjengelig.

#### · 5.3 Råd til brannmannskaper

· **Spesielt verneutstyr:** Ta på egnet åndedrettsbeskyttelse.

### Avsnitt 6: Tiltak ved utilsiktede utslipp

#### · 6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner

Ta på beskyttelsesdrakt. Hold ubeskyttede personer borte.

#### · 6.2 Forsiktighetsregler med hensyn til miljø

Ansvarlige myndigheter varsles hvis produktet er kommet ned i vassdrag eller kloakk.

Fortynn med rikelig med vann.

La ikke produktet komme ned i kloakk/overflatevann/grunnvann.

#### · 6.3 Metoder og materialer for oppsamling og rensing

Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).

Bruk nøytraliseringsmiddel.

Bortskaff kontaminert materiale som avfall i.h.t. punkt 13.

Sørg for tilstrekkelig ventilasjon.

#### · 6.4 Henvisning til andre avsnitt

Informasjoner om sikker håndtering, se kapittel 7.

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Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.  
Informasjoner om bortskaffelse/deponering, se kapittel 13.

### Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering**  
Sørg for god ventilasjon/avsugning på arbeidsplassen.  
Beholderne må åpnes og håndteres forsiktig.  
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:** Hold åndedrettsbeskyttelse i beredskap.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:** Hold beholderne tett tilsluttet.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **8.1 Kontrollparametere**
- **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.

· **Komponenter med grenseverdier for arbeidsplass som må overholdes:**

#### 111-30-8 glutaraldehyd

AG Takverdi: 0,8 \*0,25 mg/m<sup>3</sup>, 0,2 ppm  
A, \*alkalisk aktivert

#### 67-56-1 metanol

AG Langtidsverdi: 130 mg/m<sup>3</sup>, 100 ppm  
H E

- **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.
- **8.2 Eksponeringskontroll**
- **Personlig verneutstyr:**
- **Generelle verne- og hygienetiltak:**  
Holdes adskilt fra næringsmidler, drikkevarer og forstoffer.  
Fjern omgående forurensede, gjennomvætede klær.  
Vask hendene før arbeidspausen og ved arbeidets slutt.  
Beskyttelsesklær må oppbevares adskilt.  
Unngå berøring med øynene.  
Unngå berøring med øyne og hud.
- **Åndedrettsvern:**  
Ved korttidlig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.
- **Håndvern:**



Beskyttelseshansker

Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.

På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblandingen.

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Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

- **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenne tegn og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsberegnes, og denne må testes før bruk.

- **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

- **Øyevern:**



Tettsittende vernebrille

### Avsnitt 9: Fysiske og kjemiske egenskaper

- **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**

- **alminnelige opplysninger**

- **Utseende:**

· <b>Form:</b>	Væske
· <b>Farge:</b>	Gjennomsiktig
· <b>Lukt:</b>	Fruktlignende
· <b>Lukterskel:</b>	Ikke bestemt.

- **pH-verdi:** Ikke bestemt.

- **Tilstandsendring**

· <b>Smeltepunkt/frysepunkt:</b>	-21 °C
· <b>Startkokepunkt og kokeområde:</b>	100,5 °C

- **Flammepunkt:** Ikke brukbar.

- **Antennelighet (fast stoff, gass):** Ikke brukbar.

- **Nedbrytingstemperatur:** Ikke bestemt.

- **Selvantennelsestemperatur:** Produktet er ikke selvantennelig.

- **Eksplorative egenskaper:** Produktet er ikke eksplosjonsfarlig.

- **Ekspljosjonsgrenser:**

· <b>Nedre:</b>	Ikke bestemt.
· <b>Øvre</b>	Ikke bestemt.

- **Damptrykk ved 20 °C:** 0,3 hPa

- **Tetthet ved 20 °C:** 1,129 g/cm<sup>3</sup>

- **Relativ tetthet:** Ikke bestemt.

- **Damptetthet:** Ikke bestemt.

- **Fordampingshastighet:** Ikke bestemt.

- **Løslighet i / blandbarhet med vann:**

Fullstendig blandbar.

- **Fordelingskoeffisient; n-oktanol/vann:** Ikke bestemt.

- **Viskositet:**

· <b>Dynamisk:</b>	Ikke bestemt.
· <b>Kinematisk:</b>	Ikke bestemt.

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· **Løsningsmiddelandel:**

<b>Organiske løsningsmidler:</b>	0,5 %
<b>Vann:</b>	29,5 %
<b>VOC (EF)</b>	0,50 %

<b>Andel faste stoffer:</b>	0,0 %
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<b>· 9.2 Andre opplysninger</b>	Ikke noe mer relevant informasjon tilgjengelig.
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## Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Ikke noe mer relevant informasjon tilgjengelig.
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** Ingen spaltning ved formålsriktig bruk.
- **10.3 Risiko for farlige reaksjoner** Det kjennes ingen farlige reaksjoner.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

## Avsnitt 11: Toksikologiske opplysninger

· **11.1 Opplysninger om toksikologiske virkninger**· **Akutt giftighet**

Giftig ved svelging.

Dødelig ved innånding.

· **Klassifiseringsrelevante LD/LC50-verdier:****111-30-8 glutaraldehyd**

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2.560 mg/kg (rabbit)

· **Primær irritasjonsvirkning:**· **Hudetsing/hudirritasjon**

Gir alvorlige etseskader på hud og øyne.

· **Alvorlig øyeskade/øyeirritasjon**

Gir alvorlig øyeskade.

· **Sensibilisering ved innånding eller hudkontakt**

Kan gi allergi eller astmasymptomer eller puste vansker ved innånding.

Kan utløse en allergisk hudreaksjon.

· **Informasjon om følgende grupper med potensielle virkninger:**· **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**· **Arvestoffskadelig virkning på kjønnseller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.· **Kreftfremkallende egenskap** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.· **Reproduksjonstoksicitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.· **STOT – enkelteksponering**

Kan forårsake irritasjon av luftveiene.

· **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.· **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

NO

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### Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Økotoksiske virkninger:**
- **Bemerkning:**  
meget giftig for fisk  
giftig for fisk
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**  
Vannfareklasse 3 (D) (Selvklassifisering): meget farlig for vann  
Ikke la stoffet komme ned i grunnvannet, i vassdrag eller i kloakker, heller ikke i små mengder.  
Må ikke komme uforynnet eller unøytralisert ned i spillvann eller i avløpsgrøft.  
Fare for drikkevann allerede ved utstrømning av meget små mengder i marken.  
I vassdrag også giftig for fisker og plankton.  
meget giftig for vannorganismer  
giftig for vannorganismer
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.
- **Anbefalt rengjøringsmiddel:** Vann, eventuelt med tilsetning av rengjøringsmidler.

### Avsnitt 14: Transportopplysninger

- |                                   |   |
|-----------------------------------|---|
| · <b>14.1 FN-nummer</b>           |   |
| · <b>ADR, IMDG, IATA</b>          | UN3265  |
| · <b>14.2 FN-forsendelsesnavn</b> |   |
| · <b>ADR</b>                      | 3265 ETSSENDE VÆSKE, SUR, ORGANISK, N.O.S.<br>(glutaraldehyd), MILJØSKADELG STOFF |
| · <b>IMDG, IATA</b>               | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyd)                      |

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NO

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· **14.3 Transportfareklasse(r)**· **ADR**

· **klasse** 8 Etsende stoffer  
· **Fareseddel** 8+6.1

· **IMDG**

· **Class** 8 Etsende stoffer  
· **Label** 8/6.1

· **IATA**

· **Class** 8 Etsende stoffer  
· **Label** 8 (6.1)

· **14.4 Emballasjegruppe**· **ADR, IMDG, IATA** II· **14.5 Miljøfarer**· **Spesielle merking (ADR):** Produktet inneholder miljøskadelige stoffer: glutaraldehyd

Symbol (fisk og treet)

· **14.6 Særlige forsiktighetsregler ved bruk**· **Farenummer (Kemler-tall):** Advarsel: Etsende stoffer· **EMS-nummer:** 88· **Segregation groups** F-A,S-B· **Stowage Category** Acids· **Stowage Code** B· **Stowage Code** SW2 Clear of living quarters.· **14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket**

Ikke brukbar.

· **Transport/ytterligere informasjon:**· **ADR**· **Begrenset mengde (LQ)** 1L· **Unntatte mengder (EQ)** Kode: E2

Maksimal nettovekt per inneremballasje: 30 ml

Maksimal nettovekt per ytteremballasje: 500 ml

· **Transportkategori** 2· **Tunnel restriksjonskode** E· **IMDG**· **Limited quantities (LQ)** 1L

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· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 ETSENDE VÆSKE, SUR, ORGANISK, N.O.S. (GLUTARALDEHYD), 8 (6.1), II, MILJØSKADELG STOFF

### Avsnitt 15: Opplysninger om regelverk

- 15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen
- Direktiv 2012/18/EU
- Spesifiserte farlige stoffer - VEDLEGG I ingen av innholdsstoffene er listet opp
- Seveso kategori  
H2  
E1
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på lavere nivå 50 t
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på høyere nivå 200 t
- Forordning (EF) nr. 1907/2006 VEDLEGG XVII Begrensninger: 3

· Direktiv 2011/65/EF om begrensning av bruken av visse farlige stoffer i elektrisk og elektronisk utstyr - Vedlegg II

ingen av innholdsstoffene er listet opp

· Forordning (EF) nr. 273/2004 om utgangsstoffer for narkotika

ingen av innholdsstoffene er listet opp

· Forordning (EF) nr. 111/2005 om fastsettelse av regler for overvåking av handelen med utgangsstoffer for narkotika mel-lom Fellesskapet og tredjestater

ingen av innholdsstoffene er listet opp

· Nasjonale forskrifter:

· Andre forskrifter, restriksjoner og forbudsforordninger

· Stoffer som gir stor grunn til bekymring iflg. REACH, artikkel 57

111-30-8 glutaraldehyd

67-56-1 metanol

· 15.2 Vurdering av kjemikaliesikkerhet En kjemisk sikkerhetsvurdering er ikke utført.

### Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produktegenskaper og er ikke grunnlag for noe kontraktsmessig rettsforhold.

· Relevante satser

H225 Meget brannfarlig væske og damp.

H301 Giftig ved svelging.

H302 Farlig ved svelging.

H312 Farlig ved hudkontakt.

H314 Gir alvorlige etseskader på hud og øyne.

H317 Kan utløse en allergisk hudreaksjon.

H330 Dødelig ved innånding.

H332 Farlig ved innånding.

H334 Kan gi allergi eller astmasymptomer eller pustevansker ved innånding.

H335 Kan forårsake irritasjon av luftveiene.

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*H370 Forårsaker organskader.**H400 Meget giftig for liv i vann.**H411 Giftig, med langtidsvirkning, for liv i vann.***Forkortelser og akronymer:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Brannfarlige væsker – Kategori 2**Acute Tox. 3: Akutt giftighet – Kategori 3**Acute Tox. 4: Akutt giftighet – Kategori 4**Acute Tox. 2: Akutt giftighet – Kategori 2**Skin Corr. 1B: Hudetsing/hudirritasjon – Kategori 1B**Eye Dam. 1: Alvorlig øyeskade/øveirritasjon – Kategori 1**Resp. Sens. 1: Åndedrettssensibilisering – Kategori 1**Skin Sens. 1: Hudsensibilisering – Kategori 1**Skin Sens. 1A: Hudsensibilisering – Kategori 1A**STOT SE 1: Giftvirkning på bestemte organer (enkelteksponering) – Kategori 1**STOT SE 3: Giftvirkning på bestemte organer (enkelteksponering) – Kategori 3**Aquatic Acute 1: Farlig for vannmiljøet - akutt fare for vannmiljøet – Kategori 1**Aquatic Chronic 2: Farlig for vannmiljøet - langsiktig fare for vannmiljøet – Kategori 2*

**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31º

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

- **1.1 Identificador do produto**
- **Nome comercial:** Glutaraldehyde 70% EM Grade
- **Código do produto:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECÇÃO 2: Identificação dos perigos

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



GHS06 caveira sobre tibias cruzadas

Acute Tox. 3      H301 Tóxico por ingestão.  
Acute Tox. 2      H330 Mortal por inalação.



GHS08 perigo para a saúde

Resp. Sens. 1      H334 Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.



GHS05 corrosão

Skin Corr. 1B      H314 Provoca queimaduras na pele e lesões oculares graves.  
Eye Dam. 1      H318 Provoca lesões oculares graves.



GHS09 ambiente

Aquatic Acute 1      H400 Muito tóxico para os organismos aquáticos.  
Aquatic Chronic 2      H411 Tóxico para os organismos aquáticos com efeitos duradouros.

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GHS07

Skin Sens. 1 H317 Pode provocar uma reacção alérgica cutânea.  
 STOT SE 3 H335 Pode provocar irritação das vias respiratórias.

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



GHS05 GHS06 GHS08 GHS09

- **Palavra-sinal Perigo**
- **Componentes determinantes para os perigos constantes do rótulo:**  
 glutaral
- **Advertências de perigo**  
 H301 Tóxico por ingestão.  
 H330 Mortal por inalação.  
 H314 Provoca queimaduras na pele e lesões oculares graves.  
 H334 Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.  
 H317 Pode provocar uma reacção alérgica cutânea.  
 H335 Pode provocar irritação das vias respiratórias.  
 H400 Muito tóxico para os organismos aquáticos.  
 H411 Tóxico para os organismos aquáticos com efeitos duradouros.
- **Recomendações de prudência**  
 P301+P310 EM CASO DE INGESTÃO: contacte imediatamente um CENTRO DE INFORMAÇÃO ANTIVENENOS/médico.  
 P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): Retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água [ou tomar um duche].  
 P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: Enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continue a enxaguar.  
 P320 É urgente um tratamento específico (ver no presente rótulo).  
 P362+P364 Retirar a roupa contaminada e lavá-la antes de a voltar a usar.  
 P405 Armazenar em local fechado à chave.  
 P501 Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.
- **2.3 Outros perigos**
- **Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

### SECÇÃO 3: Composição/informação sobre os componentes

- **3.2 Caracterização química: Misturas**
- **Descrição:** Mistura das seguintes substâncias com aditivos não perigosos.

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· <b>Substâncias perigosas:</b>		
CAS: 111-30-8 EINECS: 203-856-5	glutaral ◆ Acute Tox. 3, H301; Acute Tox. 2, H330; ◆ Resp. Sens. 1, H334; ◆ Skin Corr. 1B, H314; ◆ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ◆ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	metanol ◆ Flam. Liq. 2, H225; ◆ STOT SE 1, H370; ◆ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%
· <b>SVHC</b>		
111-30-8	glutaral	
67-56-1	metanol	

· **Avisos adicionais:** O texto das indicações de perigo aqui incluído poderá ser consultado no capítulo 16.

### SECÇÃO 4: Medidas de primeiros socorros

#### · 4.1 Descrição das medidas de primeiros socorros

##### · Indicações gerais:

O vestuário contaminado com substâncias perigosas deve ser imediatamente removido.

Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.

Tirar a protecção respiratória apenas depois de ter sido despido o vestuário contaminado.

Em caso de respiração irregular ou paragem da respiração, executar respiração artificial.

##### · Em caso de inalação:

Ar fresco ou entrada de oxigénio; solicitar auxílio médico.

Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.

##### · Em caso de contacto com a pele: Lavar imediatamente com água e sabão e enxaguar abundantemente.

##### · Em caso de contacto com os olhos:

Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas, e consultar o médico.

##### · Em caso de ingestão:

Não induzir o vômito; consultar o médico imediatamente.

Beber bastante água e respirar ar fresco. Consultar imediatamente um médico.

##### · 4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados

Não existe mais nenhuma informação relevante disponível.

##### · 4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários

Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 5: Medidas de combate a incêndios

#### · 5.1 Meios de extinção

· Meios adequados de extinção: Coordenar no local medidas para extinção do fogo.

#### · 5.2 Perigos especiais decorrentes da substância ou mistura

Não existe mais nenhuma informação relevante disponível.

#### · 5.3 Recomendações para o pessoal de combate a incêndios

· Equipamento especial de protecção: Colocar máscara de respiração.

### SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

#### · 6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência

Usar equipamento de protecção. Manter as pessoas desprotegidas afastadas.

( continuação na página 4 )



# Ficha de dados de segurança

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· **6.2 Precauções a nível ambiental:**

*Em caso de infiltrações nos leitos de água ou na canalização, comunicar aos serviços públicos competentes.  
Diluir em bastante água.*

*Evitar que penetre na canalização / águas superficiais / águas subterrâneas.*

· **6.3 Métodos e materiais de confinamento e limpeza:**

*Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).*

*Aplicar um agente de neutralização.*

*Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.*

*Assegurar uma ventilação adequada.*

· **6.4 Remissão para outras secções**

*Para informações sobre uma manipulação segura, ver o capítulo 7.*

*Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.*

*Para informações referentes à eliminação residual, ver o capítulo 13.*

### SECÇÃO 7: Manuseamento e armazenagem

· **7.1 Precauções para um manuseamento seguro**

*Assegurar uma boa ventilação / exaustão no local de trabalho.*

*Abrir e manusear o recipiente com cuidado*

*Evitar a formação de aerossóis.*

· **Precauções para prevenir incêndios e explosões:** *Manter uma máscara de respiração sempre preparada.*

· **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**

· **Armazenagem:**

· **Requisitos para espaços ou contentores para armazenagem:** *Sem requisitos especiais.*

· **Avisos para armazenagem conjunta:** *Não necessário.*

· **Outros avisos sobre as condições de armazenagem:** *Manter o recipiente hermeticamente fechado.*

· **7.3 Utilização(ões) final(is) específica(s)** *Não existe mais nenhuma informação relevante disponível.*

### SECÇÃO 8: Controlo da exposição/Protecção individual

· **8.1 Parâmetros de controlo**

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

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

**111-30-8 glutaral**

VLE	Valor limite de exposição – concentração máxima: 0,05 ppm (S); A4; Irrit.ocular, do TRS, cutânea; SCN
-----	--

**67-56-1 metanol**

VLE	Valor para exposição curta: 250 ppm Valor para exposição longa: 200 ppm P; IBE; Cefaleias; lesão ocular; tonturas; náuseas
-----	--

· **Componentes con valores-limite biológicos:**

**67-56-1 metanol**

IBE	15 mg/L Amostra: urina Momento da amostragem: Fim do turno Indicador biológico: Metanol
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· **Indicações adicionais:** *Foram utilizadas como base as listas válidas à data da elaboração.*

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## · 8.2 Controlo da exposição

### · Equipamento de protecção individual:

### · Medidas gerais de protecção e higiene:

Manter afastado de alimentos, bebidas e forragens.

Despir imediatamente a roupa contaminada e embebida.

Lavar as mãos antes das pausas e no fim do trabalho.

Guardar o vestuário de protecção separadamente.

Evitar o contacto com os olhos.

Evitar o contacto com os olhos e com a pele.

### · Protecção respiratória:

Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

### · Protecção das mãos:



Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

### · Material das luvas

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

### · Tempo de penetração no material das luvas

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

### · Protecção dos olhos:



Óculos de protecção totalmente fechados

## SECÇÃO 9: Propriedades físico-químicas

### · 9.1 Informações sobre propriedades físicas e químicas de base

#### · Informações gerais

#### · Aspeto:

Forma:

Líquido

Cor:

Transparente

#### · Odor:

Frutoso

#### · Limiar olfactivo:

Não determinado.

#### · valor pH:

Não determinado.

#### · Mudança do estado:

Ponto de fusão/ponto de congelação:

-21 °C

Ponto de ebulição inicial e intervalo de ebulição:

100,5 °C

#### · Ponto de inflamação:

Não aplicável.

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· <b>Inflamabilidade (sólido, gás):</b>	<i>Não aplicável.</i>
· <b>Temperatura de decomposição:</b>	<i>Não determinado.</i>
· <b>Temperatura de autoignição:</b>	<i>O produto não é auto-inflamável.</i>
· <b>Propriedades explosivas:</b>	<i>O produto não corre o risco de explosão.</i>
· <b>Limites de explosão:</b>	
<b>Inferior:</b>	<i>Não determinado.</i>
<b>Superior:</b>	<i>Não determinado.</i>
· <b>Pressão de vapor em 20 °C:</b>	<i>0,3 hPa</i>
· <b>Densidade em 20 °C:</b>	<i>1,129 g/cm<sup>3</sup></i>
· <b>Densidade relativa</b>	<i>Não determinado.</i>
· <b>Densidade de vapor</b>	<i>Não determinado.</i>
· <b>Taxa de evaporação:</b>	<i>Não determinado.</i>
· <b>Solubilidade em / miscibilidade com água:</b>	<i>Completamente misturável.</i>
· <b>Coefficiente de partição: n-octanol/água</b>	<i>Não determinado.</i>
· <b>Viscosidade:</b>	
<b>Dinâmico:</b>	<i>Não determinado.</i>
<b>Cinémático:</b>	<i>Não determinado.</i>
· <b>Percentagem de solvente:</b>	
<b>Solventes orgânicos:</b>	<i>0,5 %</i>
<b>Água:</b>	<i>29,5 %</i>
<b>VOC (UE)</b>	<i>0,50 %</i>
<b>Percentagem de substâncias sólidas:</b>	<i>0,0 %</i>
· <b>9.2 Outras informações</b>	<i>Não existe mais nenhuma informação relevante disponível.</i>

### SECÇÃO 10: Estabilidade e reactividade

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

### SECÇÃO 11: Informação toxicológica

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda**
- Tóxico por ingestão.*
- Mortal por inalação.*

· **Valores LD/LC50 relevantes para a classificação:****111-30-8 glutaral**

por via oral    LD50    134 mg/kg (rat)

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**Nome comercial:** *Glutaraldehyde 70% EM Grade*

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por via dérmica	LD50	2.560 mg/kg (rabbit)
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- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea**  
*Provoca queimaduras na pele e lesões oculares graves.*
- **Lesões oculares graves/irritação ocular**  
*Provoca lesões oculares graves.*
- **Sensibilização respiratória ou cutânea**  
*Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.  
Pode provocar uma reacção alérgica cutânea.*
- **Avisos adicionais de toxicologia:**
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**  
*Com base nos dados disponíveis, os critérios de classificação não são preenchidos.*
- **Carcinogenicidade** *Com base nos dados disponíveis, os critérios de classificação não são preenchidos.*
- **Toxicidade reprodutiva** *Com base nos dados disponíveis, os critérios de classificação não são preenchidos.*
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**  
*Pode provocar irritação das vias respiratórias.*
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**  
*Com base nos dados disponíveis, os critérios de classificação não são preenchidos.*
- **Perigo de aspiração** *Com base nos dados disponíveis, os critérios de classificação não são preenchidos.*

### SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** *Não existe mais nenhuma informação relevante disponível.*
- **12.2 Persistência e degradabilidade** *Não existe mais nenhuma informação relevante disponível.*
- **12.3 Potencial de bioacumulação** *Não existe mais nenhuma informação relevante disponível.*
- **12.4 Mobilidade no solo** *Não existe mais nenhuma informação relevante disponível.*
- **Efeitos ecotóxicos:**
- **Observação:**  
*Muito tóxico para os peixes.  
Tóxico para os peixes.*
- **Outras indicações ecológicas:**
- **Indicações gerais:**  
*Classe de perigo para a água 3 (D) (auto-classificação): muito perigoso para a água  
Não deixar chegar às águas subterrâneas, aos cursos de água nem à canalização, nem em pequenas quantidades.  
Substâncias concentradas, ou seja não neutralizadas, não podem chegar aos esgotos nem às águas.  
Perigo de poluição da água potável mesmo se forem derramadas quantidades muito pequenas no subsolo.  
Tóxico nas águas para os peixes e para o plâncton.  
muito tóxico para os organismos aquáticos  
tóxico para os organismos aquáticos*
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** *Não aplicável.*
- **mPmB:** *Não aplicável.*
- **12.6 Outros efeitos adversos** *Não existe mais nenhuma informação relevante disponível.*

### SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** *Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.*

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(continuação da página 7)

- **Embalagens contaminadas:**
- **Recomendação:** *Eliminação residual conforme o regulamento dos serviços públicos.*
- **Meio de limpeza recomendado:** *Água, eventualmente com adição de produtos de limpeza*

### SECÇÃO 14: Informações relativas ao transporte

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

UN3265

- **14.2 Designação oficial de transporte da ONU**
- **ADR**

3265 LÍQUIDO ORGÂNICO CORROSIVO, ÁCIDO, N.S.A.  
(glutaral), PERIGOSO PARA O AMBIENTE  
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)

- **IMDG, IATA**

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

- **ADR**



- **Classe**
- **Rótulo**

8 Matérias corrosivas  
8+6.1

- **IMDG**



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

8 Matérias corrosivas  
8/6.1

- **IATA**



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

8 Matérias corrosivas  
8 (6.1)

- **14.4 Grupo de embalagem**
- **ADR, IMDG, IATA**

II

- **14.5 Perigos para o ambiente:**

*O produto contém matérias perigosas para o ambiente:  
glutaral*

- **Marcação especial (ADR):**

*Símbolo convencional (peixes e árvore)*

- **14.6 Precauções especiais para o utilizador**
- **Número de identificação de perigo (Nº Kemler):**
- **Nº EMS:**
- **Segregation groups**
- **Stowage Category**

Atenção: Matérias corrosivas

88

F-A,S-B

Acids

B

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· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC</b>	Não aplicável.
· <b>Transporte/outras informações:</b>	
· <b>ADR</b>	
· <b>Quantidades Limitadas (LQ)</b>	IL
· <b>Quantidades exceptuadas (EQ)</b>	Código: E2 Quantidade líquida máxima por embalagem interior: 30 ml Quantidade líquida máxima por embalagem exterior: 500 ml
· <b>Categoria de transporte</b>	2
· <b>Código de restrição em túneis</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 LÍQUIDO ORGÂNICO CORROSIVO, ÁCIDO, N.S.A. (GLUTARAL), 8 (6.1), II, PERIGOSO PARA O AMBIENTE

### SECÇÃO 15: Informação sobre regulamentação

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

· **Diretiva 2012/18/UE**

· **Substâncias perigosas designadas - ANEXO I** Nenhum dos componentes se encontra listado.

· **Categoria "Seveso"**

H2 TOXICIDADE AGUDA

E1 Perigoso para o ambiente aquático

· **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior** 50 t

· **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior** 200 t

· **Regulamento (CE) n.º 1907/2006 ANEXO XVII** Condições de limitação: 3

· **Directiva 2011/65/UE relativa à restrição do uso de determinadas substâncias perigosas em equipamentos eléctricos e electrónicos - Anexo II**

Nenhum dos componentes se encontra listado.

· **REGULAMENTO (UE) 2019/1148**

· **Anexo I - PRECURSORES DE EXPLOSIVOS OBJETO DE RESTRIÇÕES (Valor-limite máximo para efeitos de licenciamento nos termos do artigo 5.o, n.o 3)**

Nenhum dos componentes se encontra listado.

· **Anexo II - PRECURSORES DE EXPLOSIVOS PASSÍVEIS DE PARTICIPAÇÃO**

Nenhum dos componentes se encontra listado.

· **Regulamento (CE) n.º 273/2004 relativo aos precursores de drogas**

Nenhum dos componentes se encontra listado.

· **Regulamento (CE) n.º 111/2005 que estabelece regras de controlo do comércio de precursores de drogas entre a Comunidade e países terceiros**

Nenhum dos componentes se encontra listado.

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- **Disposições nacionais:**
- **outros regulamentos, restrições e decretos que proibem**

- **Substâncias que suscitam elevada preocupação (SVHC) em conformidade com REACH, artigo 57**

111-30-8	glutaral
67-56-1	metanol

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

### SECÇÃO 16: Outras informações

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

- **Frases relevantes**

- H225 Líquido e vapor facilmente inflamáveis.
- H301 Tóxico por ingestão.
- H302 Nocivo por ingestão.
- H312 Nocivo em contacto com a pele.
- H314 Provoca queimaduras na pele e lesões oculares graves.
- H317 Pode provocar uma reacção alérgica cutânea.
- H330 Mortal por inalação.
- H332 Nocivo por inalação.
- H334 Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.
- H335 Pode provocar irritação das vias respiratórias.
- H370 Afecta os órgãos.
- H400 Muito tóxico para os organismos aquáticos.
- H411 Tóxico para os organismos aquáticos com efeitos duradouros.

- **Abreviaturas e 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Líquidos inflamáveis – Categoria 2
- Acute Tox. 3: Toxicidade aguda – Categoria 3
- Acute Tox. 4: Toxicidade aguda – Categoria 4
- Acute Tox. 2: Toxicidade aguda – Categoria 2
- Skin Corr. 1B: Corrosão/irritação cutânea – Categoria 1B
- Eye Dam. 1: Lesões oculares graves/irritação ocular – Categoria 1
- Resp. Sens. 1: Sensibilização respiratória – Categoria 1
- Skin Sens. 1: Sensibilização cutânea – Categoria 1
- Skin Sens. 1A: Sensibilização cutânea – Categoria 1A
- STOT SE 1: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 1
- STOT SE 3: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 3
- Aquatic Acute 1: Perigoso para o ambiente aquático - perigo agudo para o ambiente aquático – Categoria 1
- Aquatic Chronic 2: Perigoso para o ambiente aquático - perigo de longo prazo para o ambiente aquático – Categoria 2

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 10.05.2022

Revisión: 10.05.2022

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** Glutaraldehyde 70% EM Grade

· **Número del artículo:** 16350, 16360-SP, 16360, 16365

· **UFI:** HNC5-K0GK-J004-SNPM

#### · 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

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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**



GHS06 calavera y tibias cruzadas

Acute Tox. 3      H301 Tóxico en caso de ingestión.

Acute Tox. 2      H330 Mortal en caso de inhalación.



GHS08 peligro para la salud

Resp. Sens. 1      H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.



GHS05 corrosión

Skin Corr. 1B      H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

Eye Dam. 1      H318 Provoca lesiones oculares graves.

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GHS09 medio ambiente

Aquatic Acute 1 H400 Muy tóxico para los organismos acuáticos.

Aquatic Chronic 2 H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

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

STOT SE 3 H335 Puede irritar las vías respiratorias.

### · 2.2 Elementos de la etiqueta

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

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

#### · Pictogramas de peligro



GHS05



GHS06



GHS08



GHS09

#### · Palabra de advertencia Peligro

#### · Componentes peligrosos a indicar en el etiquetaje:

glutaral

#### · Indicaciones de peligro

H301 Tóxico en caso de ingestión.

H330 Mortal en caso de inhalación.

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

H317 Puede provocar una reacción alérgica en la piel.

H335 Puede irritar las vías respiratorias.

H400 Muy tóxico para los organismos acuáticos.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

#### · Consejos de prudencia

P301+P310 EN CASO DE INGESTIÓN: Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/ médico.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente toda la ropa contaminada. Enjuagar la piel con agua [o ducharse].

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.

P320 Se necesita urgentemente un tratamiento específico (ver en esta etiqueta).

P362+P364 Quitar las prendas contaminadas y lavarlas antes de volver a usarlas.

P405 Guardar bajo llave.

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

### · 2.3 Otros peligros

#### · Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

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· **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: 111-30-8 EINECS: 203-856-5	glutaral ◆ Acute Tox. 3, H301; Acute Tox. 2, H330; ◆ Resp. Sens. 1, H334; ◆ Skin Corr. 1B, H314; ◆ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ◆ Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	metanol ◆ Flam. Liq. 2, H225; ◆ STOT SE 1, H370; ◆ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

#### · SVHC

111-30-8	glutaral
67-56-1	metanol

· **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:

Quitarse de inmediato toda prenda contaminada con el producto.

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.

Antes de quitarse la protección respiratoria, quítese la ropa contaminada.

En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.

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

Suministrar aire fresco u oxígeno; solicitar ayuda médica.

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

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

##### · En caso de con los ojos:

Limpia los ojos abiertos durante varios minutos con agua corriente y consultar un médico.

##### · En caso de ingestión:

No provocar el vómito y solicitar asistencia médica inmediata.

Beber mucha agua a respirar aire fresco. Solicitar asistencia médica inmediatamente.

##### · 4.2 Principales síntomas y efectos, agudos y retardados No existen más datos relevantes disponibles.

##### · 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente No existen más datos relevantes disponibles.

### SECCIÓN 5: Medidas de lucha contra incendios

#### · 5.1 Medios de extinción

· **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.

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

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- **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**  
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**  
Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.  
Diluir con mucha agua.  
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).  
Utilizar un neutralizador.  
Desechar el material contaminado como vertido según item 13.  
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**  
Ver capítulo 7 para mayor información sobre una manipulación segura.  
Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Abrir y manejar el recipiente con cuidado.  
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

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

- **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:**

#### 111-30-8 glutaral

LEP Valor de corta duración: 0,2 mg/m<sup>3</sup>, 0,05 ppm  
Sen

#### 67-56-1 metanol

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

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· **Componentes con valores límite biológicos:**

**67-56-1 metanol**

VLB 15 mg/l

Muestra: orina

Momento de Muestero: Final de la jornada laboral

Indicador Biológico: Metanol

· **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.

Guardar la ropa protectora por separado.

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:**



Guantes de protección

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

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

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

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser avaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

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

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

· **Protección de ojos:**



Gafas de protección herméticas

## SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**

· **Datos generales**

· **Aspecto:**

Forma:

Líquido

Color:

Transparente

· **Olor:**

Similar a las frutas

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· <b>Umbral olfativo:</b>	No determinado.
· <b>valor pH:</b>	No determinado.
· <b>Cambio de estado</b> Punto de fusión/punto de congelación:	-21 °C
Punto inicial de ebullición e intervalo de ebullición:	100,5 °C
· <b>Punto de inflamación:</b>	No aplicable.
· <b>Inflamabilidad (sólido, gas):</b>	No aplicable.
· <b>Temperatura de descomposición:</b>	No determinado.
· <b>Temperatura de auto-inflamación:</b>	El producto no es autoinflamable.
· <b>Propiedades explosivas:</b>	El producto no es explosivo.
· <b>Límites de explosión:</b> Inferior:	No determinado.
Superior:	No determinado.
· <b>Presión de vapor a 20 °C:</b>	0,3 hPa
· <b>Densidad a 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Tasa de evaporación:</b>	No determinado.
· <b>Solubilidad en / miscibilidad con agua:</b>	Completamente mezclable.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b> Dinámica:	No determinado.
Cinemática:	No determinado.
· <b>Concentración del disolvente:</b> Disolventes orgánicos:	0,5 %
Agua:	29,5 %
VOC (CE)	0,50 %
· <b>Contenido de cuerpos sólidos:</b>	0,0 %
· <b>9.2 Otros datos</b>	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.

ES

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### SECCIÓN 11: Información toxicológica

#### · 11.1 Información sobre los efectos toxicológicos

##### · Toxicidad aguda

Tóxico en caso de ingestión.

Mortal en caso de inhalación.

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

##### 111-30-8 glutaral

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2.560 mg/kg (rabbit)

##### · Efecto estimulante primario:

##### · Corrosión o irritación cutáneas

Provoca quemaduras graves en la piel y lesiones oculares graves.

##### · Lesiones o irritación ocular graves

Provoca lesiones oculares graves.

##### · Sensibilización respiratoria o cutánea

Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

Puede provocar una reacción alérgica en la piel.

##### · 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 irritar las vías respiratorias.

##### · 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.

##### · Efectos ecotóxicos:

##### · Observación:

Muy tóxico para peces.

Tóxico para peces.

##### · Indicaciones medioambientales adicionales:

##### · Indicaciones generales:

Nivel de riesgo para el agua 3 (autoclasificación): muy peligroso para el agua

No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados, ni siquiera en pequeñas cantidades.

En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.

Una cantidad ínfima vertida en el subsuelo ya representa un peligro para el agua potable.

Vertido en aguas superficiales, también es tóxico para los peces y el plancton.

muy tóxico para organismos acuáticos

tóxico para organismos acuáticos

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- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

**SECCIÓN 13: Consideraciones relativas a la eliminación**

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

**SECCIÓN 14: Información relativa al transporte**

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN3265

- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 3265 LÍQUIDO CORROSIVO, ÁCIDO, ORGÁNICO, N.E.P. (glutaral), PELIGROSO PARA EL MEDIO AMBIENTE
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)

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

- **ADR**



- **Clase** 8 Materias corrosivas
- **Etiqueta** 8+6.1

- **IMDG**



- **Class** 8 Materias corrosivas
- **Label** 8/6.1

- **IATA**



- **Class** 8 Materias corrosivas
- **Label** 8 (6.1)

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· <b>14.4 Grupo de embalaje</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Peligros para el medio ambiente:</b> · <b>Marcado especial (ADR):</b>	El producto contiene materias peligrosas para el medio ambiente: glutaral Símbolo (pez y árbol)
· <b>14.6 Precauciones particulares para los usuarios</b> · <b>Número de identificación de peligro (Número Kemler):</b> · <b>Número EMS:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	Atención: Materias corrosivas 88 F-A,S-B Acids B SW2 Clear of living quarters.
· <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> · <b>Cantidades exceptuadas (EQ)</b>	1L Código: E2 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 500 ml
· <b>Categoría de transporte</b> · <b>Código de restricción del túnel</b>	2 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>"Reglamentación Modelo" de la UNECE:</b>	UN 3265 LÍQUIDO CORROSIVO, ÁCIDO, ORGÁNICO, N.E.P. (GLUTARAL), 8 (6.1), II, PELIGROSO PARA EL MEDIO AMBIENTE

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **Categoría Seveso**  
H2 TOXICIDAD AGUDA  
E1 Peligroso para el medio ambiente acuático
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior** 50 t
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior** 200 t
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones:** 3

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

ninguno de los componentes está incluido en una lista

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· **REGLAMENTO (UE) 2019/1148**

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

· **Disposiciones nacionales:**

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

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

111-30-8	glutaral
67-56-1	metanol

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### SECCIÓN 16: Otra información

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

· **Frases relevantes**

H225 Líquido y vapores muy inflamables.

H301 Tóxico en caso de ingestión.

H302 Nocivo en caso de ingestión.

H312 Nocivo en contacto con la piel.

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

H317 Puede provocar una reacción alérgica en la piel.

H330 Mortal en caso de inhalación.

H332 Nocivo en caso de inhalación.

H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

H335 Puede irritar las vías respiratorias.

H370 Provoca daños en los órganos.

H400 Muy tóxico para los organismos acuáticos.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Líquidos inflamables – Categoría 2

( se continua en página 11 )

**Ficha de datos de seguridad**  
según 1907/2006/CE, Artículo 31

fecha de impresión 10.05.2022

Revisión: 10.05.2022

**Nombre comercial: Glutaraldehyde 70% EM Grade**

( se continua en página 10 )

*Acute Tox. 3: Toxicidad aguda – Categoría 3**Acute Tox. 4: Toxicidad aguda – Categoría 4**Acute Tox. 2: Toxicidad aguda – Categoría 2**Skin Corr. 1B: Corrosión o irritación cutáneas – Categoría 1B**Eye Dam. 1: Lesiones oculares graves o irritación ocular – Categoría 1**Resp. Sens. 1: Sensibilización respiratoria – Categoría 1**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Skin Sens. 1A: Sensibilización cutánea – Categoría 1A**STOT SE 1: Toxicidad específica en determinados órganos ( exposición única) – Categoría 1**STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3**Aquatic Acute 1: Peligroso para el medio ambiente acuático - peligro acuático agudo – Categoría 1**Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2*

ES

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

Datum för utskrift: 10.05.2022

Omarbetad: 10.05.2022

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

- **1.1 Produktbeteckning**
- **Handelsnamn:** Glutaraldehyde 70% EM Grade
- **Artikelnummer:** 16350, 16360-SP, 16360, 16365
- **UFI:** HNC5-K0GK-J004-SNPM
- **1.2 Relevanta identifierade användningar av ämnet eller blandningen och användningar som det avråds från**  
Ingen ytterligare relevant information finns till förfogande.
- **Ämnets användning / tillredningen** Laboratoriekemikalier
- **1.3 Närmare upplysningar om den som tillhandahåller säkerhetsdatablad**
- **Tillverkare/leverantör:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Område där upplysningar kan inhämtas:** Product safety department
- **1.4 Telefonnummer för nödsituationer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### AVSNITT 2: Farliga egenskaper

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



GHS06 dödsdåd med korsande benknöt

Acute Tox. 3      H301 Giftigt vid förtäring.

Acute Tox. 2      H330 Dödligt vid inandning.



GHS08 hälsofara

Resp. Sens. 1      H334 Kan orsaka allergi- eller astmasymtom eller andningssvårigheter vid inandning.



GHS05 frätande

Skin Corr. 1B      H314 Orsakar allvarliga frätskador på hud och ögon.

Eye Dam. 1      H318 Orsakar allvarliga ögonskador.



GHS09 miljöfarligt

Aquatic Acute 1      H400 Mycket giftigt för vattenlevande organismer.

Aquatic Chronic 2      H411 Giftigt för vattenlevande organismer med långtidseffekter.



GHS07

(Fortsättning på sida 2)

# Säkerhetsdatablad

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

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**Handelsnamn: Glutaraldehyde 70% EM Grade**

(Fortsättning från sida 1)

Skin Sens. 1      H317 Kan orsaka allergisk hudreaktion.  
 STOT SE 3      H335 Kan orsaka irritation i luftvägarna.

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

GHS05   GHS06   GHS08   GHS09

· **Signalord Fara**· **Riskbestämmande komponenter för etikettering:**

Glutaraldehyd

· **Faroangivelser**

H301 Giftigt vid förtäring.

H330 Dödligt vid inandning.

H314 Orsakar allvarliga frätskador på hud och ögon.

H334 Kan orsaka allergi- eller astmasymtom eller andningssvårigheter vid inandning.

H317 Kan orsaka allergisk hudreaktion.

H335 Kan orsaka irritation i luftvägarna.

H400 Mycket giftigt för vattenlevande organismer.

H411 Giftigt för vattenlevande organismer med långtidseffekter.

· **Skyddsangivelser**

P301+P310      VID FÖRTÄRING: Kontakta genast GIFTINFORMATIONSCENTRALEN/läkare.

P303+P361+P353 VID HUDKONTAKT (även håret): Ta omedelbart av alla nedstänkta kläder. Skölj huden med vatten [eller duscha].

P305+P351+P338 VID KONTAKT MED ÖGONEN: Skölj försiktigt med vatten i flera minuter. Ta ur eventuella kontaktlinser om det går lätt. Fortsätt att skölja.

P320      Särskild behandling krävs omedelbart (se på etiketten).

P362+P364      Ta av nedstänkta kläder och tvätta dem innan de används igen.

P405      Förvaras inlåst.

P501      Innehållet / behållaren avfallshanteras enligt lokala / regionala / nationella / internationella föreskrifter.

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

### AVSNITT 3: Sammansättning/information om beståndsdelar

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

CAS: 111-30-8 EINECS: 203-856-5	Glutaraldehyd Acute Tox. 3, H301; Acute Tox. 2, H330;  Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Aquatic Chronic 2, H411; Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	metanol Flam. Liq. 2, H225;  STOT SE 1, H370;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

(Fortsättning på sida 3)

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

Datum för utskrift: 10.05.2022

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**Handelsnamn: Glutaraldehyde 70% EM Grade**

(Fortsättning från sida 2)

· <b>SVHC</b>	
111-30-8	Glutaraldehyd
67-56-1	metanol

· **Ytterligare hänvisningar:** De angivna farohänvisningarnas ordalydelse framgår av kapitel 16.

#### AVSNITT 4: Åtgärder vid första hjälpen

· **4.1 Beskrivning av åtgärder vid första hjälpen**

· **Allmänna hänvisningar:**

Klädesplagg som förorenats med produkten skall omedelbart avlägsnas.

Förgiftningssymptom kan uppträda först efter många timmar. Av denna anledning krävs läkarövervakning i minst 48 timmar efter ett olycksfall.

Ta inte bort andningsskyddet förrän förorenade klädesplagg har avlägsnats.

Vid oregelbunden andning eller andningsstillestånd - ge konstgjord andning.

· **Vid inandning:**

Friskluft- eller syretillförsel; tillkalla läkarhjälp.

Vid medvetslöshet lägg och transportera patient stabilt i framstupa sidoläge.

· **Vid kontakt med huden:** Tvätta omedelbart med vatten och tvål och spola därefter noggrant.

· **Vid kontakt med ögonen:** Spola ögonen öppna i flera minuter under rinnande vatten och kontakta läkare.

· **Vid förtäring:**

Framkalla ej kräkning, tillkalla omedelbart läkarhjälp.

Drick rikligt med vatten. Tillför frisk luft. Kontakta läkare omedelbart.

· **4.2 De viktigaste symptomen och effekterna, både akuta och fördröjda**

Ingen ytterligare relevant information finns till förfogande.

· **4.3 Angivande av omedelbar medicinsk behandling och särskild behandling som eventuellt krävs**

Ingen ytterligare relevant information finns till förfogande.

#### AVSNITT 5: Brandbekämpningsåtgärder

· **5.1 Släckmedel**

· **Lämpliga släckningsmedel:** Anpassa brandbekämpningsåtgärderna till omgivningen.

· **5.2 Särskilda faror som ämnet eller blandningen kan medföra**

Ingen ytterligare relevant information finns till förfogande.

· **5.3 Råd till brandbekämpningspersonal**

· **Speciell skyddsutrustning:** Använd andningsskyddsutrustning.

#### AVSNITT 6: Åtgärder vid oavsiktliga utsläpp

· **6.1 Personliga skyddsåtgärder, skyddsutrustning och åtgärder vid nödsituationer**

Använd skyddsutrustning. Håll oskyddade personer på avstånd.

· **6.2 Miljöskyddsåtgärder:**

När produkten kommit in i vattendrag eller avloppsnät, skall vederbörande myndigheter underrättas.

Blanda ut med mycket vatten.

Förhindra produkten att tränga ner i avloppsnät/ytvatten/grundvatten.

· **6.3 Metoder och material för inneslutning och sanering:**

Sug upp med vätskebindande material (sand, kiselgur, syrabindemedel, universalbindemedel, sågspån).

Använd neutraliseringsmedel.

Omhändertaga förorenat material som avfall enligt punkt 13.

Se till att ventilationen är tillräcklig.

(Fortsättning på sida 4)

# Säkerhetsdatablad

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

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(Fortsättning från sida 3)

- **6.4 Hänvisning till andra avsnitt**  
Information beträffande säker hantering se kapitel 7.  
Information beträffande personlig skyddsutrustning se kapitel 8.  
Information beträffande avfallshantering se kapitel 13.

## AVSNITT 7: Hantering och lagring

- **7.1 Försiktighetsmått för säker hantering**  
Sörj för god ventilation/utsug på arbetsplatsen.  
Öppna behållaren försiktigt och hantera den varsamt.  
Undvik bildning av aerosol.
- **Hänvisningar beträffande brand- och explosionsskydd:** Håll andningsskyddsutrustning i beredskap.
- **7.2 Förhållanden för säker lagring, inklusive eventuell oförenlighet**
- **Lagring:**
- **Krav på lagerutrymmen och behållare:** Inga speciella krav.
- **Hänvisningar beträffande sammanlagring:** Erfordras ej.
- **Ytterligare uppgifter till lagringsvillkoren:** Förvara behållaren tätt tillsluten.
- **7.3 Specifik slutanvändning** Ingen ytterligare relevant information finns till förfogande.

## AVSNITT 8: Begränsning av exponeringen/personligt skydd

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

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

### 111-30-8 Glutaraldehyd

OEL	Korttidsvärde: 0,4 mg/m <sup>3</sup> , 0,1 ppm
S	

### 67-56-1 metanol

OEL	Korttidsvärde: 350 mg/m <sup>3</sup> , 250 ppm
	Nivågränsvärde: 250 mg/m <sup>3</sup> , 200 ppm
H, V	

- **Ytterligare hänvisningar:** De vid framställningen gällande listorna har använts som utgångspunkt.
- **8.2 Begränsning av exponeringen**
- **Personlig skyddsutrustning:**
- **Allmänna skydds- och hygienåtgärder:**  
Undvik kontakt med livsmedel, drycker och fodermedel.  
Nedsmutsade, indränkta klädesplagg skall omedelbart tas av.  
Tvätta händerna före raster och efter arbetet.  
Skyddsdräkter förvaras separat.  
Undvik kontakt med ögonen.  
Undvik kontakt med ögonen och huden.
- **Andningsskydd:**  
Vid kortvarig eller ringa belastning - använd andningsfilterutrustning; vid intensiv resp. längre exponering - använd andningsskyddsutrustning som är oberoende av omgivningsluften.
- **Handskydd:**



Skyddshandskar

(Fortsättning på sida 5)

**Säkerhetsdatablad**  
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(Fortsättning från sida 4)

Handskmaterialet måste vara tätt och beständigt mot produkt/ämne/tillredning.

Handskmaterialrekommendationer kan inte ges för produkt/tillredning/kemikalielösning, då inga tester genomförts.

Val av handskmaterial beaktande penetrationstider, permeationskvoter och degradation.

· **Handskmaterial**

Val av lämplig handske är inte enbart beroende av material utan även av andra kvalitetskriterier och varierar från en tillverkare till nästa. Då produkten bereds av flera material, kan handskmaterialets beständighet inte förutses och måste därför kontrolleras före användningen.

· **Handskmaterialets penetreringstid**

Exakt penetrationstid fastställs av skyddshandskarnas tillverkare och skall beaktas.

· **Ögonskydd:**



Tättslutande skyddsglasögon

### AVSNITT 9: Fysikaliska och kemiska egenskaper

· **9.1 Information om grundläggande fysikaliska och kemiska egenskaper**

· **Allmänna uppgifter**

· **Utseende:**

Form: Vätska

Färg: Genomskinlig

· **Lukt:** Fruktaktig

· **Lukttröskel:** Ej bestämd.

· **pH-värde:** Ej bestämd.

· **Tillståndändring**

Smältpunkt/frys punkt: -21 °C

Initial kokpunkt och kokpunktsintervall: 100,5 °C

· **Flampunkt:** Ej användbar.

· **Brandfarlighet (fast form, gas):** Ej användbar.

· **Sönderfallstemperatur:** Ej bestämd.

· **Självantändningstemperatur:** Produkten är ej självantändande.

· **Explosiva egenskaper:** Produkten är ej explosiv.

· **Explosionsgränser:**

Nedre: Ej bestämd.

Övre: Ej bestämd.

· **Ångtryck vid 20 °C:** 0,3 hPa

· **Densitet vid 20 °C:** 1,129 g/cm<sup>3</sup>

· **Relativ densitet:** Ej bestämd.

· **Ångdensitet:** Ej bestämd.

· **Avdunstningshastighet:** Ej bestämd.

· **Löslighet i / blandbarhet med**

Vatten: Fullständigt blandbar.

· **Fördelningskoefficient: n-oktanol/vatten:** Ej bestämd.

(Fortsättning på sida 6)

**Säkerhetsdatablad**  
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**Handelsnamn: Glutaraldehyde 70% EM Grade**

(Fortsättning från sida 5)

· <b>Viskositet:</b>	
<b>Dynamisk:</b>	Ej bestämd.
<b>Kinematisk:</b>	Ej bestämd.
· <b>Lösningsmedelhalt:</b>	
<b>Organiska lösningsmedel:</b>	0,5 %
<b>Vatten:</b>	29,5 %
<b>VOC (EG)</b>	0,50 %
<b>Andel av fasta partiklar:</b>	0,0 %
· <b>9.2 Annan information</b>	Ingen ytterligare relevant information finns till förfogande.

### AVSNITT 10: Stabilitet och reaktivitet

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

### AVSNITT 11: Tokikologisk information

- **11.1 Information om de toxikologiska effekterna**
- **Akut toxicitet**  
Giftigt vid förtäring.  
Dödligt vid inandning.

- **Klassificeringsrelevanta LD/LC50-värden:**

#### 111-30-8 Glutaraldehyd

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2.560 mg/kg (rabbit)

- **Primär retningseffekt:**
- **Frätande/irriterande på huden**  
Orsakar allvarliga frätskador på hud och ögon.
- **Allvarlig ögonskada/ögonirritation**  
Orsakar allvarliga ögonskador.
- **Luftvägs-/hudsensibilisering**  
Kan orsaka allergi- eller astmasymtom eller andningssvårigheter vid inandning.  
Kan orsaka allergisk hudreaktion.
- **Ytterligare toxikologiska hänvisningar:**
- **CMR-effekter (cancerframkallande, mutagena och reproduktionstoxiska egenskaper)**
- **Mutagenitet i könsceller**  
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Cancerogenitet** Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Reproduktionstoxicitet**  
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Specifik organtoxicitet – enstaka exponering**  
Kan orsaka irritation i luftvägarna.

(Fortsättning på sida 7)



**Säkerhetsdatablad**  
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(Fortsättning från sida 6)

- **Specifik organtocitet – upprepad exponering**  
Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.
- **Fara vid aspiration** Kriterierna för klassificering kan på grundval av tillgängliga data inte anses vara uppfyllda.

### AVSNITT 12: Ekologisk information

- **12.1 Toxicitet**
- **Akvatisk toxicitet:** Ingen ytterligare relevant information finns till förfogande.
- **12.2 Persistens och nedbrytbarhet** Ingen ytterligare relevant information finns till förfogande.
- **12.3 Bioackumuleringsförmåga** Ingen ytterligare relevant information finns till förfogande.
- **12.4 Rörlighet i jord** Ingen ytterligare relevant information finns till förfogande.
- **Ekotoxiska effekter:**
- **Kommentar:**  
Mycket giftig för fisk.  
Giftig för fisk.
- **Ytterligare ekologiska hänvisningar:**
- **Allmänna hänvisningar:**  
Vattenföroreningsklass 3 (Självutvärdering): stor risk för vattenförorening.  
Låt ej tränga ner i grundvatten, vattendrag eller avloppsnätet, inte ens i små mängder.  
Får ej hamna i avloppsvatten eller uppsamlingsdike i outspätt resp. oneutraliserat tillstånd.  
Risk för förorening av dricksvattnet redan när mycket små mängder tränger ner i marken.  
I vattendrag även giftig för fisk och plankton.  
Mycket giftig för vattenorganismer  
Giftig för vattenorganismer
- **12.5 Resultat av PBT- och vPvB-bedömningen**
- **PBT:** Ej användbar.
- **vPvB:** Ej användbar.
- **12.6 Andra skadliga effekter** Ingen ytterligare relevant information finns till förfogande.

### AVSNITT 13: Avfallshantering

- **13.1 Avfallsbehandlingsmetoder**
- **Rekommendation:** Får inte deponeras ihop med hushållsavfall. Får inte tömmas i avloppsnätet.
- **Ej rengjorda förpackningar:**
- **Rekommendation:** Avfallshanteras enligt myndigheters föreskrifter.
- **Rekommenderat rengöringsmedel:** Vatten, eventuellt med tillsats av rengöringsmedel.

### AVSNITT 14: Transportinformation

- |  |  |
|--|--|
| · <b>14.1 UN-nummer</b>                    |  |
| · <b>ADR, IMDG, IATA</b>                   | UN3265   |
| · <b>14.2 Officiell transportbenämning</b> |  |
| · <b>ADR</b>                               | 3265 FRÄTANDE SUR ORGANISK VÄTSKA, N.O.S.<br>(Glutaraldehyd), MILJÖFARLIGT |
| · <b>IMDG, IATA</b>                        | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde)              |

(Fortsättning på sida 8)

**Säkerhetsdatablad**  
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(Fortsättning från sida 7)

· **14.3 Faroklass för transport**· **ADR**

· **Klass** 8 Frätande ämnen  
· **Etikett** 8+6.1

· **IMDG**

· **Class** 8 Frätande ämnen  
· **Label** 8/6.1

· **IATA**

· **Class** 8 Frätande ämnen  
· **Label** 8 (6.1)

· **14.4 Förpackningsgrupp**

· **ADR, IMDG, IATA** II

· **14.5 Miljöfaror:** Produkten innehåller miljöfarliga ämnen: Glutaraldehyd  
· **Särskild märkning (ADR):** Symbol (fisk och träd)

· **14.6 Särskilda skyddsåtgärder** Varning: Frätande ämnen  
· **Farlighetsnummer (Kemler-tal):** 88  
· **EMS-nummer:** F-A,S-B  
· **Segregation groups** Acids  
· **Stowage Category** B  
· **Stowage Code** SW2 Clear of living quarters.

· **14.7 Bulktransport enligt bilaga II till Marpol 73/78 och IBC-koden** Ej användbar.

· **Transport / ytterligare uppgifter:**

· **ADR**  
· **Begränsade mängder (LQ)** 1L  
· **Reducerade mängder (EQ)** Kod: E2  
Högsta nettomängd per innerförpackning: 30 ml  
Högsta nettomängd per ytterförpackning: 500 ml  
· **Transportkategori** 2  
· **Tunnelrestriktionskod** E

· **IMDG**  
· **Limited quantities (LQ)** 1L

(Fortsättning på sida 9)

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Omarbetad: 10.05.2022

**Handelsnamn: Glutaraldehyde 70% EM Grade**

(Fortsättning från sida 8)

· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 3265 FRÅTANDE SUR ORGANISK VÄTSKA, N.O.S. (GLUTARALDEHYD), 8 (6.1), II, MILJÖFARLIGT

**AVSNITT 15: Gällande föreskrifter**· **15.1 Föreskrifter/lagstiftning om ämnet eller blandningen när det gäller säkerhet, hälsa och miljö**

- **Direktiv 2012/18/EU**
- **Namngivna farliga ämnen - BILAGA I** Inga beståndsdelar är listade.
- **Seveso-kategorier**  
H2 AKUT TOXICITET  
E1 Farligt för vattenmiljön
- **Tröskelvärden (i ton) för tillämpning av krav för lägre nivå 50 t**
- **Tröskelvärden (i ton) för tillämpning av krav för övre nivå 200 t**
- **Förordning (EG) nr 1907/2006 BILAGA XVII Villkor: 3**

· **Direktiv 2011/65/EU om begränsning av användning av vissa farliga ämnen i elektrisk och elektronisk utrustning - Bilaga II**

Inga beståndsdelar är listade.

· **FÖRORDNING (EU) 2019/1148**· **Bilaga I - SPRÄNGÄMNESPREKURSORER SOM OMFATTAS AV RESTRIKTIONER (Övre gränsvärde för beviljande av tillstånd enligt artikel 5.3)**

Inga beståndsdelar är listade.

· **Bilaga II - SPRÄNGÄMNESPREKURSORER SOM OMFATTAS AV RAPPORTERINGSKRAV**

Inga beståndsdelar är listade.

· **Förordning (EG) nr 273/2004 om narkotikaprekursorer**

Inga beståndsdelar är listade.

· **Förordning (EG) nr 111/2005 om regler för övervakning av handeln med narkotikaprekursorer mellan gemenskapen och tredjeländer**

Inga beståndsdelar är listade.

· **Nationella föreskrifter:**· **Övriga föreskrifter, begränsningar och förbudsbestämmelser**· **Ämnen som inger mycket stora betänkligheter (SVHC) enligt REACH, artikel 57**

111-30-8 | Glutaraldehyd

67-56-1 | metanol

· **15.2 Kemikaliesäkerhetsbedömning: En kemikaliesäkerhetsbedömning har ej gjorts.****AVSNITT 16: Annan information**

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

· **Relevanta fraser**

H225 Mycket brandfarlig vätska och ånga.

H301 Giftigt vid förtäring.

(Fortsättning på sida 10)

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

Datum för utskrift: 10.05.2022

Omarbetad: 10.05.2022

**Handelsnamn: Glutaraldehyde 70% EM Grade**

(Fortsättning från sida 9)

*H302 Skadligt vid förtäring.**H312 Skadligt vid hudkontakt.**H314 Orsakar allvarliga frätskador på hud och ögon.**H317 Kan orsaka allergisk hudreaktion.**H330 Dödligt vid inandning.**H332 Skadligt vid inandning.**H334 Kan orsaka allergi- eller astmasymtom eller andningssvårigheter vid inandning.**H335 Kan orsaka irritation i luftvägarna.**H370 Orsakar organskador.**H400 Mycket giftigt för vattenlevande organismer.**H411 Giftigt för vattenlevande organismer med långtidseffekter.***Förkortningar och akronymer:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**ELINCS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Brandfarliga vätskor – Kategori 2**Acute Tox. 3: Akut toxicitet – Kategori 3**Acute Tox. 4: Akut toxicitet – Kategori 4**Acute Tox. 2: Akut toxicitet – Kategori 2**Skin Corr. 1B: Frätande eller irriterande på huden – Kategori 1B**Eye Dam. 1: Allvarlig ögonskada eller ögonirritation – Kategori 1**Resp. Sens. 1: Luftvägssensibilisering – Kategori 1**Skin Sens. 1: Hudsensibilisering – Kategori 1**Skin Sens. 1A: Hudsensibilisering – Kategori 1A**STOT SE 1: Specifik organtoxicitet (enstaka exponering) – Kategori 1**STOT SE 3: Specifik organtoxicitet (enstaka exponering) – Kategori 3**Aquatic Acute 1: Farligt för vattenmiljön - akut fara – Kategori 1**Aquatic Chronic 2: Farligt för vattenmiljön - fara för skadliga långtidseffekter – Kategori 2*

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### 1 การบ่งชี้สารเดี่ยวหรือสารผสม และผู้ผลิต

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **Glutaraldehyde 70% EM Grade**
- เลขที่รายชื่อ 16350, 16360-SP, 16360, 16365
- 1.2 สารหรือสารผสมที่เกี่ยวข้องที่ระบุให้ใช้และที่ไม่ควรให้ใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- การประยุกต์ใช้สาร/ การทำ เคมีภัณฑ์ห้องทดลอง
- 1.3 รายละเอียดของผู้จัดหาข้อมูลด้านความปลอดภัย
- ผู้ผลิต/ ผู้จัดหา  
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
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 การบ่งชี้ความเป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับ (จีซี) เลขที่ 1272/2008



หัวกระโหลกและกระดูกไขว้

Acute Tox. 3      H301 มีพิษหากกลืนเข้าไป  
Acute Tox. 2      H330 เป็นอันตรายถึงชีวิตหากสูดหายใจเข้า



สิ่งอันตรายต่อสุขภาพ

Resp. Sens. 1      H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า



การกัดกร่อน

Skin Corr. 1      H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา  
Eye Dam. 1      H318 เป็นสาเหตุให้เกิดอันตรายต่อดวงตาอย่างสาหัส



สิ่งแวดล้อม

Aquatic Acute 1      H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ  
Aquatic Chronic 2      H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบต่อระบบนิเวศ



Skin Sens. 1      H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

(ต่อหน้า 2)

**แผนข้อมูลความปลอดภัย**  
**ตาม GHS**

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

**ชื่อทางการค้า Glutaraldehyde 70% EM Grade**

(ต่อหน้า 1)

STOT SE 3      H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ

- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 ผลิตภัณฑ์ได้รับการจัดประเภทและติดฉลากตามข้อบังคับของ CLP
- ภาพสัญลักษณ์ที่เป็นอันตราย



GHS05    GHS06    GHS08    GHS09

- สัญลักษณ์คำ อันตราย
- ส่วนประกอบที่ระบุอันตรายบนฉลาก  
กลูตารัลดีไฮด์
- ประกาศสิ่งที่เป็นอันตราย  
H301 มีพิษหากกลืนเข้าไป  
H330 เป็นอันตรายถึงชีวิตหากสูดหายใจเข้า  
H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา  
H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า  
H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้  
H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ  
H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ  
H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบต่อระยะยาว
- ประกาศการป้องกันระดับร้ายแรง  
P301+P310 หากกลืนลงไป: โทรศัพทถึงศูนย์พิษวิทยา/แพทย์ ทันที  
P303+P361+P353 หากสัมผัสผิวหนัง (หรือเส้นผม) ถอดเสื้อผ้าที่เปื้อนทั้งหมดทันที ล้างผิวหนังด้วยน้ำ/อาบน้ำ  
P305+P351+P338 หากเข้าตา: ชะล้างด้วยน้ำอย่างระมัดระวังเป็นเวลาหลายๆ นาที ถอดคอนแทกซ์เลนส์ถ้ายังอยู่ที่เดิมและสะดวกที่จะทำก็ให้ชะล้างต่อไป  
P320 การบำบัดรักษาเฉพาะอย่างเร่งด่วน (ดูฉลาก)  
P362+P364 ถอดเสื้อผ้าที่เปื้อนและซักก่อนที่จะนำกลับมาใช้ใหม่  
P405 เก็บในที่ใส่กุญแจปิด  
P501 ทั้งสิ่งที่บรรจุ/ภาชนะที่บรรจุตามกฎหมายของท้องถิ่น/แคว้น/ในประเทศ/ระหว่างประเทศ
- 2.3 อันตรายอื่นๆ
- ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้

**3 องค์ประกอบและข้อมูลเกี่ยวกับส่วนผสม**

- 3.2 คุณลักษณะทางเคมี: ส่วนผสม
- คำอธิบาย ส่วนผสมของสารในรายการข้างล่างพร้อมสารเติมแต่งที่ไม่เป็นอันตราย

• ส่วนประกอบที่มีอันตราย		
CAS: 111-30-8 EINECS: 203-856-5	กลูตารัลดีไฮด์ Acute Tox. 3, H301; Acute Tox. 2, H330; Resp. Sens. 1, H334; Skin Corr. 1, H314; Aquatic Acute 1, H400; Aquatic Chronic 2, H411; Skin Sens. 1A, H317; STOT SE 3, H335	>50-≤100%
CAS: 67-56-1 EINECS: 200-659-6	เมทานอล Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2.5%

- ข้อมูลรายละเอียดเสริม สำหรับข้อความที่ระบุในรายการความเสี่ยงที่อ้างอิงถึงในส่วนที่ 16

TH

(ต่อหน้า 3)

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### ชื่อทางการค้า Glutaraldehyde 70% EM Grade

(ต่อหน้า 2)

#### 4 มาตรการปฐมพยาบาล

- 4.1 คำอธิบายถึงมาตรการปฐมพยาบาล
- ข้อมูลรายละเอียดทั่วไป  
ให้ถอดเสื้อผ้าที่เปื้อนหรือเปื้อนผลิตภัณฑ์ออกทันที  
อาการจากพิษอาจเกิดขึ้นหลังจากนั้นหลายชั่วโมงดังนั้นจะต้องเฝ้าติดตามอาการทางการแพทย์อย่างน้อย 48 ชั่วโมงหลังจากอุบัติเหตุ  
ให้ถอดอุปกรณ์ช่วยหายใจออกหลังจากที่ถอดเสื้อผ้าที่เปื้อนออกเรียบร้อยแล้วเท่านั้น  
ในกรณีที่หายใจผิดปกติหรือการหายใจหยุดชะงักให้ใช้อุปกรณ์ช่วยหายใจ
- หลังจากการสูดหายใจเข้าไป  
หาบริเวณที่มีอากาศบริสุทธิ์หรือให้ออกซิเจนติดต่อแพทย์  
ในกรณีที่คนไข้ไม่รู้สึกตัวให้ขนย้ายคนไข้อย่างมั่นคงในท่าตะแคงด้านข้าง
- หลังจากการสัมผัสผิวหนัง ล้างด้วยน้ำและสบู่แล้วฟอกให้ทั่วทันที
- หลังจากการสัมผัสตา ชะตาที่เปิดอยู่ใต้น้ำที่กำลังไหลเป็นเวลาหลายนาที่จากนั้นให้ปรึกษาแพทย์
- หลังจากการกลืนเข้าไป:  
อย่าพยายามทำให้อาเจียรขอความช่วยเหลือทางการแพทย์ทันที  
ดื่มน้ำมากๆและให้สูดอากาศบริสุทธิ์พบแพทย์โดยทันที
- 4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### 5 มาตรการผจญเพลิง

- 5.1 สารที่ใช้ดับเพลิง
- สารดับเพลิงที่เหมาะสม ใช้วิธีดับเพลิงที่เหมาะสมกับสภาพแวดล้อม
- 5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 5.3 คำแนะนำสำหรับพนักงานดับเพลิง
- อุปกรณ์ป้องกันภัย อุปกรณ์ป้องกันซึ่งเหมาะสำหรับการหายใจทางปาก

#### 6 มาตรการจัดการเมื่อมีการหกรั่วไหลของสาร

- 6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน  
สวมอุปกรณ์ป้องกันภัยแก่คนที่ไม่ใช่ผู้ปฏิบัติงานออกไป
- 6.2 การให้ความคุ้มครองสิ่งแวดล้อมล่วงหน้า:  
แจ้งผู้มีอำนาจที่เกี่ยวข้องในกรณีที่เกิดการไหลซึมเข้าสู่น้ำหรือระบบระบายน้ำ  
ทำให้เจือจางด้วยน้ำมากๆ  
อย่าปล่อยให้เข้าไปในท่อน้ำทิ้ง/ น้ำบนดินหรือใต้ดิน
- 6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจุและการทำความสะอาด:  
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ (ทรายไดอะโตไมท์ตัวยึดเกาะกรดตัวยึดทั่วไปซีลีอัม)  
ใช้สารทำให้เป็นกลาง  
ทิ้งวัสดุที่ปนเปื้อนเป็นของเสียตามรายการในบัญชี 13  
ตรวจให้แน่ใจว่ามีการระบายอากาศที่ดีพอ
- 6.4 การอ้างอิงถึงส่วนอื่น  
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7  
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8  
ดูข้อมูลรายละเอียดเรื่องการจัดจากส่วนที่ 13

#### 7 การขนถ่าย เคลื่อนย้าย ใช้งาน และเก็บรักษา

- 7.1 การป้องกันล่วงหน้าสำหรับการจัดการด้านความปลอดภัย  
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ ใ้อากาศดี  
เปิดและถือภาชนะรองรับอย่างระมัดระวัง  
ป้องกันการเกิดละอองสารฟุ้ง

(ต่อหน้า 4)

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### ชื่อทางการค้า Glutaraldehyde 70% EM Grade

(ต่อหน้า 3)

- ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด เก็บอุปกรณ์ป้องกันสำหรับการช่วยหายใจให้พร้อมใช้งาน
- 7.2 เสนอไขในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ
- การจัดเก็บ
- ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ ไม่มีข้อกำหนดพิเศษ
- ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม ไม่ได้กำหนด
- ข้อมูลรายละเอียดเพิ่มเติมด้านสภาพการจัดเก็บ เก็บโดยปิดผนึกอย่างแน่นหนา
- 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวช้องนอกเหนือจากนี้

## 8 การควบคุมการสัมผัสและการป้องกันส่วนบุคคล

- 8.1 การควบคุมตัวแปร
- ข้อมูลรายละเอียดเสริมสำหรับการออกแบบสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7

· ส่วนผสมพร้อมค่าขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน

### 111-30-8 กลูตารัลดีไฮด์

REL (US) Ceiling limit value: 0.8 mg/m<sup>3</sup>, 0.2 ppm

See Pocket Guide App. C

TLV (US) Ceiling limit value: 0.05 ppm

DSEN;RSEN ;activated or inactivated, A4

### 67-56-1 เมทานอล

PEL (US) ค่าระยะยาว: 260 mg/m<sup>3</sup>, 200 ppm

REL (US) ค่าระยะสั้น: 325 mg/m<sup>3</sup>, 250 ppm

ค่าระยะยาว: 260 mg/m<sup>3</sup>, 200 ppm

Skin

TLV (US) ค่าระยะสั้น: 250 ppm

ค่าระยะยาว: 200 ppm

Skin; BEI

· ส่วนประกอบต่างๆ ที่มีค่าขีดจำกัดทางชีวภาพ:

### 67-56-1 เมทานอล

BEI (US) 15 mg/L

Medium: urine

Time: end of shift

Parameter: Methanol (background, nonspecific)

· ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการใช้งานเป็นหลัก

- 8.2 การควบคุมการสัมผัส
- อุปกรณ์ป้องกันส่วนบุคคล
- มาตรการการป้องกันและสุขอนามัยทั่วไป

เก็บให้ห่างจากสิ่งของที่เป็นอาหาร เครื่องดื่ม และอาหารสัตว์

ให้ถอดเสื้อผ้าที่เปื้อนและเจือปนออกทันที

ล้างมือก่อนที่จะหยุดพักและเมื่อสิ้นสุดเวลาทำงาน

เก็บชุดป้องกันแยกต่างหาก

หลีกเลี่ยงการสัมผัสถูกตา

หลีกเลี่ยงการสัมผัสถูกตาและผิวหนัง

- การป้องกันการสูดหายใจเข้าไป

ในกรณีที่อยู่เป็นเวลานานหรืออากาศเป็นพิษระดับต่ำ ใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรืออยู่เป็นเวลานานให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว

(ต่อหน้า 5)



## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### ชื่อทางการค้า Glutaraldehyde 70% EM Grade

(ต่อหน้า 4)

#### · การป้องกันมือ



ถุงมือป้องกัน

วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถุงมือสำหรับผลิตภัณฑ์/ การผลิต/ ของผสมเคมี เลือกรวัสดุสำหรับถุงมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม

#### · วัสดุที่ใช้ทำถุงมือ

การเลือกใช้ถุงมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพและข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่งโดยที่ผลิตภัณฑ์เตรียมมาจากสารหลายชนิดความทนทานของวัสดุถุงมือไม่สามารถที่จะคำนวณล่วงหน้าดังนั้นจึงต้องตรวจสอบกับการใช้งาน

#### · เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถุงมือ

ผู้ผลิตถุงมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม

#### · การป้องกันตา



แว่นตาที่ขอบปิดสนิท

## 9 คุณสมบัติทางกายภาพและทางเคมี

### · 9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี

#### · ข้อมูลรายละเอียดทั่วไป

##### · ลักษณะ :

รูปสีฐาน  
สี

ของเหลว

โปร่งใส

##### · กลิ่น

คล้ายผลไม้

##### · เกณฑ์กลิ่น :

ไม่ได้กำหนดไว้.

##### · ค่า pH

ไม่ได้กำหนดไว้.

##### · การเปลี่ยนสภาวะ

จุดหลอมเหลว/ ขอบเขตการหลอมละลาย

-21 °C

จุดเดือด/ ขอบเขตการเดือด

100.5 °C

##### · จุดวาบไฟ

ไม่สามารถใช้ได้

##### · ความสามารถติดไฟ (ของแข็งแก๊ส)

ไม่สามารถใช้ได้

##### · อุณหภูมิสลายตัว

ไม่ได้กำหนดไว้.

##### · การเผาไหม้ด้วยตัวเอง

ผลิตภัณฑ์ไม่เป็นสารจุดไฟติดด้วยตัวเอง

##### · อันตรายนจากการระเบิด

ผลิตภัณฑ์ไม่ได้มีอันตรายนจากการระเบิด

##### · ขอบเขตการระเบิด

ชั้นต่ำ

ไม่ได้กำหนดไว้.

ชั้นสูง

ไม่ได้กำหนดไว้.

##### · ความดันไอ ที่ 20 °C

0.3 hPa

##### · ความหนาแน่น ที่ 20 °C

1.129 g/cm<sup>3</sup>

##### · ความหนาแน่นสัมพัทธ์

ไม่ได้กำหนดไว้.

##### · ความหนาแน่นของไอ

ไม่ได้กำหนดไว้.

##### · อัตราการระเหย

ไม่ได้กำหนดไว้.

(ต่อหน้า 6)

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### ชื่อทางการค้า Glutaraldehyde 70% EM Grade

(ต่อหน้า 5)

· ความสามารถในการละลายใน ความสามารถผสมเป็นสารละลายเนื้อเดียวทุกส่วนผสมกับ น้ำ	/ ผสมกันได้อย่างเต็มที่
· สมบัติการแยกตัว (เอ็น-ออกทานอล/น้ำ)	ไม่ได้กำหนดไว้.
· ความหนืด (ไดนามิค) พลศาสตร์ (คินเมติก) จลนศาสตร์	ไม่ได้กำหนดไว้. ไม่ได้กำหนดไว้.
· ปริมาณส่วนประกอบตัวทำละลาย ตัวทำละลายอินทรีย์ น้ำ VOC (EC)	0.5 % 29.5 % 0.50 %
· ส่วนประกอบที่เป็นของแข็ง	0.0 %
· 9.2 ข้อมูลอื่นๆ	ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 10 ความเสถียรและการเกิดปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เงื่อนไขที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้
- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย ไม่มีปฏิกิริยาเป็นอันตรายที่รู้จัก
- 10.4 เงื่อนไขเพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

### 11 ข้อมูลด้านพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา

· ความเป็นพิษอย่างสาหัส:

มีพิษหากกลืนเข้าไป

เป็นอันตรายถึงชีวิตหากสูดหายใจเข้า

· การจัดแบ่งตามค่า LD/LC50

**111-30-8 กลูตารัลดีไฮด์**

ทางปาก	LD50	134 mg/kg (rat)
ทางผิวหนัง	LD50	2,560 mg/kg (rabbit)

· อาการระคายเคืองเบื้องต้น

· บนผิวหนัง

เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา

· ที่ดวงตา

เป็นสาเหตุให้เกิดอันตรายต่อดวงตาอย่างสาหัส

· การทำให้แพ้

อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า

อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

· ข้อมูลรายละเอียดเสริมเกี่ยวกับพิษวิทยา

· ผลกระทบ CMR (การทำให้เกิดมะเร็งการผ่าเหล่าและพิษต่อการสืบพันธุ์)

· การผ่าเหล่าในเซลล์สืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

· การกระตุ้นให้เกิดมะเร็ง Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

· พิษต่อระบบสืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

(ต่อหน้า 7)

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

### ชื่อทางการค้า Glutaraldehyde 70% EM Grade

(ต่อหน้า 6)

- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสในครี้อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ
- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสซ้ำหาลา Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- อันตรายต่อระบบหายใจ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

### 12 ข้อมูลด้านนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวข้องกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- ผลกระทบด้านพิษต่อระบบนิเวศน์
- ข้อสังเกต
  - เป็นพิษมากสำหรับปลา
  - เป็นพิษสำหรับปลา
- ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา
- หมายเหตุทั่วไป
 

เป็นอันตรายต่อน้ำชั้น 3 (กฎข้อบังคับของเยอรมัน)(การประเมินค่าด้วยตัวเอง):เป็นอันตรายสูงสุดกับน้ำ

อย่าปล่อยให้ผลิตภัณฑ์ไปถึงน้ำผิวดินเส้นทางน้ำหรือระบบระบายน้ำเสียแม้ว่าจะเป็นปริมาณเล็กน้อยเท่านั้น

ผลิตภัณฑ์ที่ยังไม่ได้เจือจางหรือยังไม่ได้ทำให้เป็นกลางต้องไม่ไปสู่น้ำเสียหรือคูระบายน้ำ

เป็นอันตรายต่อน้ำดื่มแม้จะรั่วลงในพื้นดินเป็นปริมาณที่น้อยมากก็ตาม

เป็นพิษกับปลาและแพลงค์ตอนในผิวน้ำ

มีพิษมากต่อสิ่งมีชีวิตในน้ำ

มีพิษต่อสิ่งมีชีวิตในน้ำ
- 12.5 ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้
- 12.6 ผลข้างเคียงอื่นๆ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 13 ข้อพิจารณาในการกำจัด

- 13.1 วิธีการกำจัดของเสีย
- คำแนะนำ ต้องไม่ทิ้งไปพร้อมกับขยะจากบ้านเรือนอย่าปล่อยให้ผลิตภัณฑ์เข้าสู่ระบบระบายน้ำเสีย
- ภาชนะบรรจุที่ยังไม่ได้ล้างทำความสะอาด
- คำแนะนำ การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ
- สารทำความสะอาดที่แนะนำ น้ำถ้าจำเป็นใช้คู่กับสารทำความสะอาด

### 14 ข้อมูลการขนส่ง

- 14.1 เลขที่ UN
- ADR, IMDG, IATA UN3265
- 14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN
- ADR 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (กลูตารัลดีไฮด์), ENVIRONMENTALLY HAZARDOUS
- IMDG, IATA CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)

(ต่อหน้า 8)

**แผนข้อมูลความปลอดภัย**  
**ตาม GHS**

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

**ชื่อทางการค้า Glutaraldehyde 70% EM Grade**

(ต่อหน้า 7)

· 14.3 ชั้นเรียนอันตรายจากการขนส่ง

· ADR



- ประเภท 8 สารกัดกร่อน  
· ฉลากสิ่งที่เป็นอันตราย 8+6.1

· IMDG



- Class 8 สารกัดกร่อน  
· Label 8/6.1

· IATA



- Class 8 สารกัดกร่อน  
· Label 8 (6.1)

· 14.4 กลุ่มของภาชนะบรรจุ

- ADR, IMDG, IATA II

- 14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม  
· เฉพาะการติดฉลาก (ADR): ผลิตภัณฑ์ประกอบด้วยวัสดุที่เป็นอันตรายต่อสภาพแวดล้อม: กลูตารัลดีไฮด์  
สัญลักษณ์ (ปลาและต้นไม้)

- 14.6 การป้องกันพิเศษสำหรับผู้ใช้ คำเตือน !: สารกัดกร่อน  
· รหัสความอันตราย: 88  
· หมายเลข EMS F-A,S-B  
· Segregation groups Acids  
· Stowage Category B  
· Stowage Code SW2 Clear of living quarters.

- 14.7 การขนส่งขนาดใหญ่ตามภาคผนวก 2 ของ  
MARPOL73/78 และรหัส IBC ไม่สามารถใช้ได้

· การขนส่ง/ข้อมูลรายละเอียดเสริม

- ADR  
· ปริมาณที่จำกัด (LQ) 1L  
· Excepted quantities (EQ) Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml  
· หมวดหมู่การขนส่ง 2  
· รหัสควบคุมการผ่านอุโมงค์ E

- IMDG  
· Limited quantities (LQ) 1L

(ต่อหน้า 9)

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**แผนข้อมูลความปลอดภัย**  
**ตาม GHS**

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

**ชื่อทางการค้า Glutaraldehyde 70% EM Grade**

(ต่อหน้า 8)

· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· “กฎระเบียบต้นแบบ” ของ UN	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (กลูตารัลดีไฮด์), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

**15 ข้อมูลด้านกฎข้อบังคับ**

- 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- บัญชีรายชื่อวัตถุอันตราย

· **กรมวิชาการเกษตร**

ไม่มีส่วนผสมอยู่ในรายการ

· **กรมประมง**

111-30-8 กลูตารัลดีไฮด์

ชนิดที่ 3

· **กรมปศุสัตว์**

ไม่มีส่วนผสมอยู่ในรายการ

· **อาหารและยา**

111-30-8 กลูตารัลดีไฮด์

ชนิดที่ 3

67-56-1 เมทานอล

ชนิดที่ 4

· **กรมโรงงานอุตสาหกรรม**

67-56-1 เมทานอล

ชนิดที่ 1

· **กรมธุรกิจพลังงาน**

ไม่มีส่วนผสมอยู่ในรายการ

· **ทำเนียบสารเคมีที่มีอยู่แล้วของประเทศไทย (กรมโรงงานอุตสาหกรรม)**

67-56-1 เมทานอล

- 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

**16 ข้อมูลอื่นๆ**

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

· **วลีที่เกี่ยวข้องกับ**

H225 ของเหลวและไอที่ไวไฟสูง

H301 มีพิษหากกลืนเข้าไป

H302 เป็นอันตรายหากกลืนเข้าไป

H312 เป็นอันตรายหากสัมผัสกับผิวหนัง

H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา

H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

H330 เป็นอันตรายถึงชีวิตหากสูดหายใจเข้า

H332 ให้โทษหากสูดหายใจเข้า

H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า

H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ

H370 เป็นสาเหตุทำให้อวัยวะเสียหาย

H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ

H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบต่อระยะยาว

(ต่อหน้า 10)

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แผนข้อมูลความปลอดภัย  
ตาม GHS

วันที่พิมพ์ 2022.05.10

การปรับปรุงใหม่ : 2022.05.10

ชื่อทางการค้า **Glutaraldehyde 70% EM Grade**

(ต่อหน้า 9)

· คำย่อและชื่อย่อที่พบบ่อย

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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids – Category 2  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Corr. 1: Skin corrosion/irritation – Category 1  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Resp. Sens. 1: Respiratory sensitisation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1A: Skin sensitisation – Category 1A  
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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