

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

## 1 Identification

- **Product identifier**
- **Trade name:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Article number:** 16214, 16216, 16216-10
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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

Flam. Liq. 4 H227 Combustible liquid.

- **Label elements**

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

- **Hazard pictograms**



GHS05



GHS07



GHS08

- **Signal word** Danger

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

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· **Hazard statements**

Combustible liquid.

Harmful if swallowed.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.

Do not breathe dusts or mists.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves / eye protection / face protection.

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

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.

Immediately call a POISON CENTER/doctor.

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

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

Wash contaminated clothing before reuse.

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

If swallowed: Rinse mouth. Do NOT induce vomiting.

In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

111-30-8	Glutaraldehyde	10-25%
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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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## 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.

- **After inhalation:**

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

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

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

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Immediately call a doctor.

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:**

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

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

- **Advice for firefighters**

- **Protective equipment:** 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.

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.

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Protect from heat.
- **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.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

### 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: 0.2 mg/m <sup>3</sup> , 0.05 ppm DSEN;RSEN ;activated or inactivated

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



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>	Fluid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Fruit-like
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

· **Flash point:** 71 °C (160 °F)

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

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Not determined.

· **Explosion limits:**

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

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density at 20 °C (68 °F):** 1.129 g/cm<sup>3</sup> (9.422 lbs/gal)

· **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.

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<b>Kinematic:</b>	Not determined.
<b>· Solvent content:</b>	
<b>Organic solvents:</b>	0.3 %
<b>Water:</b>	74.8 %
<b>VOC content:</b>	0.3 %
	18.1 g/l / 0.15 lb/gl
<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 that are relevant for classification:</b>		
<b>111-30-8 Glutaraldehyde</b>		
Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 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:  
Harmful  
Corrosive  
Irritant  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

<b>· IARC (International Agency for Research on Cancer)</b>
None of the ingredients is listed.
<b>· NTP (National Toxicology Program)</b>
None of the ingredients is listed.

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· **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
- **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
- **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

- |                                  |  |
|----------------------------------|--|
| · <b>UN-Number</b>               |  |
| · <b>DOT, ADR, IMDG, IATA</b>    | UN3265   |
| · <b>UN proper shipping name</b> |  |
| · <b>DOT</b>                     | Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde)                                 |
| · <b>ADR</b>                     | 3265 Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS |
| · <b>IMDG</b>                    | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT               |
| · <b>IATA</b>                    | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)                                 |

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· **Transport hazard class(es)**

· **DOT**



· **Class** 8 Corrosive substances  
 · **Label** 8

· **ADR, IMDG**



· **Class** 8 Corrosive substances  
 · **Label** 8

· **IATA**



· **Class** 8 Corrosive substances  
 · **Label** 8

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

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

· **Marine pollutant:** Symbol (fish and tree)

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

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

· **Danger code (Kemler):** 88

· **EMS Number:** F-A,S-B

· **Segregation groups** Acids

· **Stowage Category** A

· **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: 5 L  
 On cargo aircraft only: 60 L

· **ADR**

· **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

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<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8, III, ENVIRONMENTALLY HAZARDOUS</p>

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- 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 ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

67-56-1 Methyl Alcohol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

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    GHS07    GHS08

- **Signal word** Danger

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

Glutaraldehyde

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· **Hazard statements**

Combustible liquid.  
 Harmful if swallowed.  
 Causes severe skin burns and eye damage.  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.  
 Do not breathe dusts or mists.  
 [In case of inadequate ventilation] wear respiratory protection.  
 Wear protective gloves / eye protection / face protection.  
 Contaminated work clothing must not be allowed out of the workplace.  
 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.  
 Immediately call a POISON CENTER/doctor.  
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Wash contaminated clothing before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Store locked up.  
 Store in a well-ventilated place. Keep cool.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

## 16 Other information

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

· **Date of preparation / last revision** 08/10/2016 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety **Health**  
**TLV: Threshold Limit Value**  
**PEL: Permissible Exposure Limit**  
**REL: Recommended Exposure Limit**  
**Flam. Liq. 4: Flammable liquids – Category 4**  
**Acute Tox. 4: Acute toxicity – Category 4**  
**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**  
**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

*Resp. Sens. 1: Respiratory sensitisation – Category 1*  
*Skin Sens. 1: Skin sensitisation – Category 1*

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US

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

Printing date 10.08.2016

Revision: 10.08.2016

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

- **Product identifier**
- **Trade name:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Article number:** 16214, 16216, 16216-10
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazards identification

- **Classification of the substance or mixture**



GHS08 health hazard

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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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

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AU

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

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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*Flam. Liq. 4 H227 Combustible liquid.*

· **Label elements**

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

· **Hazard pictograms**



GHS05   GHS07   GHS08

· **Signal word** *Danger*

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

*Glutaraldehyde*

· **Hazard statements**

*Combustible liquid.*

*Harmful if swallowed.*

*Causes severe skin burns and eye damage.*

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

*May cause an allergic skin reaction.*

· **Precautionary statements**

*Keep away from flames and hot surfaces. – No smoking.*

*Do not breathe dusts or mists.*

*[In case of inadequate ventilation] wear respiratory protection.*

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

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

*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.*

*Immediately call a POISON CENTER/doctor.*

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

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

*Wash contaminated clothing before reuse.*

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

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

*In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.*

*Store locked up.*

*Store in a well-ventilated place. Keep cool.*

*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	10-25%
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**Safety data sheet**  
according to 1907/2006/EC, Article 31

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

#### 4 First aid measures

· **Description of first aid measures**

· **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.

· **After inhalation:**

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

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Call for a doctor 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:**

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

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

· **Advice for firefighters**

· **Protective equipment:** 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.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

AU

(Contd. on page 4)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.08.2016

Revision: 10.08.2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Protect from heat.
- **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.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

**111-30-8 Glutaraldehyde**

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

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



Protective gloves

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

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

- **Material of gloves**

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

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**Safety data sheet**  
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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 4)

- **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:** Fluid
  - Colour:** According to product specification
- **Odour:** Fruit-like
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range:** Undetermined.
  - Boiling point/Boiling range:** 100 °C
- **Flash point:** 71 °C
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Not determined.
- **Explosion limits:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Vapour pressure at 20 °C:** 23 hPa
- **Density at 20 °C:** 1.129 g/cm<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.3 %

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 5)

<b>Water:</b>	74.8 %
<b>VOC (EC)</b>	0.25 %
<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	2560 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:  
Harmful  
Corrosive  
Irritant  
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

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**Safety data sheet**  
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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 6)

· **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

· **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**· **UN-Number**· **ADG, IMDG, IATA**

UN3265

· **UN proper shipping name**· **ADG**3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS  
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde), MARINE POLLUTANT· **IMDG**· **IATA**CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)· **Transport hazard class(es)**· **ADG, IMDG**· **Class**

8 Corrosive substances.

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances.

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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· <b>Label</b>	8
· <b>Packing group</b> · <b>ADG, IMDG, IATA</b>	III
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADG):</b>	Product contains environmentally hazardous substances: Glutaraldehyde Symbol (fish and tree) Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	Warning: Corrosive substances. 88 F-A,S-B Acids A 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>ADG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	3 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N. O. S. (GLUTARALDEHYDE), 8, III, ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

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

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

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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· **Hazard pictograms**

GHS05   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***Glutaraldehyde*· **Hazard statements***Combustible liquid.**Harmful if swallowed.**Causes severe skin burns and eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.*· **Precautionary statements***Keep away from flames and hot surfaces. – No smoking.**Do not breathe dusts or mists.**[In case of inadequate ventilation] wear respiratory protection.**Wear protective gloves / eye protection / face protection.**Contaminated work clothing should not be allowed out of the workplace.**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.**Immediately call a POISON CENTER/doctor.**If experiencing respiratory symptoms: Call a POISON CENTER/doctor.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**Wash contaminated clothing before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**IF SWALLOWED: rinse mouth. Do NOT induce vomiting.**In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.**Store locked up.**Store in a well-ventilated place. Keep cool.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I Methyl Alcohol**· **Seveso category E1 Hazardous to the Aquatic Environment**· **Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t**· **Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t**· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

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

· **Abbreviations and acronyms:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

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**Safety data sheet**  
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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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*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. 4: Flammable liquids – Category 4**Acute Tox. 4: Acute toxicity – Category 4**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*

AU

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

## 1 Identification

- **Product identifier**
- **Trade name:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Article number:** 16214, 16216, 16216-10
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

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

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.  
Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.  
Flammable Liquids - Category 4 H227 Combustible liquid.

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



GHS05



GHS07



GHS08

- **Signal word** Danger

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acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 1)

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

Glutaraldehyde

· **Hazard statements**

Combustible liquid.

Harmful if swallowed.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

· **Precautionary statements**

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

Do not breathe dust/fume/gas/mist/vapours/spray.

[In case of inadequate ventilation] wear respiratory protection.

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

Wash thoroughly after handling.

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

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

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

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

Continue rinsing.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

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

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

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

Wash contaminated clothing before reuse.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place.

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

· **Hazard description:**

· **WHMIS-symbols:**

B3 - Combustible liquid

D2A - Very toxic material causing other toxic effects

E - Corrosive material



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· **HMIS-ratings (scale 0 - 4)**

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

### 3 Composition/information on ingredients

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

· **Dangerous components:**

111-30-8	Glutaraldehyde	10-30% w/w
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### 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.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Immediately call a doctor.  
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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** 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.

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- 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.  
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.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Protect from heat.
- **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.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

### 111-30-8 Glutaraldehyde

EL	Ceiling limit value: 0.05 ppm
S	
EV	Ceiling limit value: 0.05 ppm activated and inactivated

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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· **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:** Fluid

**Color:** According to product specification

· **Odor:** Fruit-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 100 °C

· **Flash point:** 71 °C

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

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Not determined.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 1.129 g/cm<sup>3</sup>

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· <b>Relative density</b>	Not determined.
· <b>Vapor 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>	0.3 %
<b>Water:</b>	74.8 %
· <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 that are relevant for classification:**

### 111-30-8 Glutaraldehyde

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 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:  
Harmful  
Corrosive  
Irritant  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

(Contd. on page 7)

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 6)

- **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

- **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

- **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, TDG, IMDG, IATA** UN3265

- **UN proper shipping name**

- **DOT** Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde)
- **TDG** 3265 Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS

(Contd. on page 8)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 7)

· **IMDG** *CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT*

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

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

· **Class** *8 Corrosive substances*

· **Label** *8*

· **TDG, IMDG**



· **Class** *8 Corrosive substances*

· **Label** *8*

· **IATA**

· **Class** *8 Corrosive substances*

· **Label** *8*

· **Packing group**· **DOT, TDG, IMDG, IATA** *III*

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

· **Marine pollutant:** *Symbol (fish and tree)*

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

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

· **Danger code (Kemler):** *88*

· **EMS Number:** *F-A,S-B*

· **Segregation groups** *Acids*

· **Stowage Category** *A*

· **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: 5 L  
On cargo aircraft only: 60 L*

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CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 8)

· **TDG**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

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

## 15 Regulatory information

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

· **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 ingredients are listed.

· **Canadian substance listings:**

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

All ingredients are 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).

· **Hazard pictograms**



GHS05

GHS07

GHS08

· **Signal word** Danger

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

Glutaraldehyde

· **Hazard statements**

Combustible liquid.

Harmful if swallowed.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2016

Reviewed on 08/10/2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 9)

· **Precautionary statements**

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

*Do not breathe dust/fume/gas/mist/vapours/spray.*

*[In case of inadequate ventilation] wear respiratory protection.*

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

*Wash thoroughly after handling.*

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

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

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

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

*Continue rinsing.*

*Immediately call a POISON CENTER/doctor.*

*Specific treatment (see on this label).*

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

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

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

*Wash contaminated clothing before reuse.*

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

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

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

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

*Store locked up.*

*Store in a well-ventilated place.*

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

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

## 16 Other information

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

· **Date of preparation / last revision** 08/10/2016 / -

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*WHMIS: Workplace Hazardous Materials Information System (Canada)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

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

Printing date 10.08.2016

Revision: 10.08.2016

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

- **1.1 Product identifier**
- **Trade name:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Article number:** 16214, 16216, 16216-10
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

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



GHS08 health hazard

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.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

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

STOT SE 3 H335 May cause respiratory irritation.

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

(Contd. on page 2)

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.08.2016

Revision: 10.08.2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 1)

· **Hazard pictograms**



· **Signal word** *Danger*

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

*Glutaraldehyde*

· **Hazard statements**

*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.*

· **Precautionary statements**

*P260 Do not breathe dust/fume/gas/mist/vapours/spray.*

*P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.*

*P310 Immediately call a POISON CENTER/doctor.*

*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	Glutaraldehyde	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332;  Skin Sens. 1, H317	

· **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.*

· **After inhalation:**

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

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

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**Safety data sheet**  
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Revision: 10.08.2016

**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 2)

- **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:**  
Call for a doctor 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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** 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.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Protect from heat.
- **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.  
Protect from heat and direct sunlight.

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**Safety data sheet**  
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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 3)

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

### SECTION 8: Exposure controls/personal protection

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

#### · 8.1 Control parameters

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

##### 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	

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

#### · 8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

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

GB

(Contd. on page 5)

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Printing date 10.08.2016

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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 4)

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

Form:	Fluid
Colour:	According to product specification
Odour:	Fruit-like
Odour threshold:	Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C

· Flash point: 71 °C

· Flammability (solid, gaseous): Not applicable.

##### · Ignition temperature:

Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Not determined.

##### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: 23 hPa

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

· Solubility in / Miscibility with water: Fully miscible.

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

##### · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

##### · Solvent content:

Organic solvents:	0.3 %
Water:	74.8 %
VOC (EC)	0.25 %

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions: No dangerous reactions known.

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# Safety data sheet

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

Printing date 10.08.2016

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**Trade name: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 5)

- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

##### 111-30-8 Glutaraldehyde

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 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.
- **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.
- **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
- **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
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Trade name: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Contd. of page 6)

· **12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation**

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

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information**· **14.1 UN-Number**· **ADR, IMDG, IATA**

UN3265

· **14.2 UN proper shipping name**· **ADR**3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS· **IMDG**CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde), MARINE POLLUTANT· **IATA**CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyde)· **14.3 Transport hazard class(es)**· **ADR, IMDG**· **Class**

8 Corrosive substances.

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances.

· **Label**

8

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

III

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

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

88

· **EMS Number:**

F-A,S-B

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**Safety data sheet**  
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· Segregation groups	Acids
· Stowage Category	A
· 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)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8, III, 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 Methyl Alcohol
- Seveso category E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

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

- **Relevant phrases**  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H400 Very toxic to aquatic life.
- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances

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**Safety data sheet**  
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*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**Acute Tox. 4: Acute toxicity – Category 4**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**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

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 2016.08.10

在 2016.08.10 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 EM GRADE 25% AQUEOUS IN SERUM VIAL

· 商品编号: 16214, 16216, 16216-10

· 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。

· 原材料的应用/准备工作进行 实验室化学物

· 安全技术说明书内供应商详细信息

### · 企业名称:

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

· 可获取更多资料的部门: Product safety department

### · 紧急联系电话号码:

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

## 2 危险性概述

### · 紧急情况概述:

根据产品规格, 流体, 可燃液体。吞咽有害。吸入可能有害。引起严重的皮肤灼伤和眼睛损伤。吸入可能引起过敏或哮喘症状或呼吸困难。可能引起皮肤过敏反应。对水生生物毒性非常大。

### · GHS危险性类别



健康危险

敏化(呼吸) 第1类

H334 吸入可能引起过敏或哮喘症状或呼吸困难



腐蚀

皮肤腐蚀/刺激 第1B类

H314 引起严重的皮肤灼伤和眼睛损伤

严重眼睛损伤/眼睛刺激性 第1类 H318 引起严重的眼睛损伤



环境

对水环境的危害(急性) 第1类

H400 对水生生物毒性非常大



急性毒性(经口) 第4类

H302 吞咽有害

敏化(皮肤) 第1类

H317 可能引起皮肤过敏反应

易燃液体 第4类

H227 可燃液体

急性毒性(吸入) 第5类

H333 吸入可能有害

(在 2 页继续)

# 化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2016.08.10

在 2016.08.10 审核

化学品中文(英文)名称, 化学品俗名或商品名: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(在 1 页继续)

## · 标签因素

· 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。

## · 图示



GHS05 GHS07 GHS08 GHS09

## · 名称 危险

## · 标签上辨别危险的成份:

1,5-戊二醛

## · 危险字句

可燃液体  
 吞咽有害  
 吸入可能有害  
 引起严重的皮肤灼伤和眼睛损伤  
 吸入可能引起过敏或哮喘症状或呼吸困难  
 可能引起皮肤过敏反应  
 对水生生物毒性非常大

## · 警戒字句

## · 预防措施

定远离火源和热表面

## · 事故响应

如皮肤(或头发)沾染: 立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴。  
 如进入眼睛: 用水小心冲洗几分钟。如戴隐型眼镜并可方便地取出, 取出隐型眼镜。继续冲洗。  
 立即呼叫解毒中心/医生

## · 安全储存

存放处须加锁。

## · 废弃处置

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

## · 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

## · 危险的成分:

111-30-8	1,5-戊二醛 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;  急性毒性(吸入) 第4类, H332;  敏化(皮肤) 第1类, H317; 易燃液体 第4类, H227	10-25%
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(在 3 页继续)

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(在 2 页继续)

## 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.

#### · 吸入:

供给新鲜空气并且确保会叫医生.

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. 然后咨询医生.

#### · 食入:

马上召唤医生.

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: 二氧化碳 (CO<sub>2</sub>)、灭火粉末或洒水. 使用洒水或抗酒精泡沫灭火剂扑灭较大的火种.

### · 特别危险性 无相关详细资料.

### · 特殊灭火方法

### · 消防人员特殊的防护装备: 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.

### · 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.

防止气溶胶的形成.

(在 4 页继续)

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(在 3 页继续)

- **有关火灾及防止爆炸的资料:** 防热.
- **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.
- 免受接触热力和直接受阳光照射.
- **具体的最终用户** 无相关详细资料.

## 8 接触控制和个体防护

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

- **在工作场需要监控的限值成分**

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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- **额外的资料:** 制作期间有效的清单将作为基础来使用.
- **泄漏控制**
- **个人防护设备:**
- **一般保护和卫生措施:**
- 远离食品、饮料和饲料.
- 立即除去所有的不洁的和被污染的衣服.
- 在休息之前和工作完毕后请清洗双手.
- 避免和眼睛接触.
- 避免和眼睛及皮肤接触.
- **呼吸系统防护:**
- 如果曾短暂接触或在低污染的情况下,请使用呼吸过滤装置. 如果曾深入或较长时间接触,请使用独立的呼吸保护装置.
- **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,渗透率和降解参数

- **手套材料**
- 选择合适的手套不单取决于材料,亦取决于质量特征,以及来自哪一间生产厂家,因为该产品是由很多材料配制而成,手套材料的抵抗力并不可预计,所以,必须在使用之前进行检查
- **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

(在 5 页继续)

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(在 4 页继续)

## · 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: 流体  
颜色: 根据产品规格

· 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: 未确定的

· 沸点/初沸点和沸程: 100 °C

· 闪点: 71 °C

· 可燃性(固体、气体): 不适用的

## · 点火温度:

· 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: 未决定.

## · 爆炸极限:

· 较低: 未决定.

· 较高: 未决定.

· 蒸气压 在 20 °C: 23 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.

· 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: 未决定.

· 运动学的: 未决定.

## · 溶剂成份:

· 有机溶剂: 0.3 %

· 水: 74.8 %

(在 6 页继续)

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(在 5 页继续)

· **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	2560 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:  
有害的  
腐蚀性的  
刺激性的  
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
- **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

(在 7 页继续)

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(在 6 页继续)

即使是少量, 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。  
即使是极其少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。

- 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 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5-戊二醛), ENVIRONMENTALLY HAZARDOUS

· IMDG CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT

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

· 运输危险等级

· ADR, IMDG



· 级别

8 腐蚀性物质

· 标签

8

· IATA



· Class

8 腐蚀性物质

· Label

8

(在 8 页继续)

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(在 7 页继续)

· 包装组别 · ADR, IMDG, IATA	III
· 危害环境: · 海运污染物质: · 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) 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 A 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: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "标准规定":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5-戊二醛), 8, III, ENVIRONMENTALLY HAZARDOUS

## 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
- 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。

- 图示



GHS05 GHS07 GHS08 GHS09

- 名称 危险

- 标签上辨别危险的成份:

1,5-戊二醛

(在 9 页继续)



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(在 8 页继续)

**危险字句**

- 可燃液体
- 吞咽有害
- 吸入可能有害
- 引起严重的皮肤灼伤和眼睛损伤
- 吸入可能引起过敏或哮喘症状或呼吸困难
- 可能引起皮肤过敏反应
- 对水生生物毒性非常大

**警戒字句****预防措施**

定远离火源和热表面

**事故响应**

- 如皮肤(或头发)沾染: 立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴。
- 如进入眼睛: 用水小心冲洗几分钟。如戴隐型眼镜并可方便地取出, 取出隐型眼镜。继续冲洗。
- 立即呼叫解毒中心/医生

**安全储存**

存放处须加锁。

**废弃处置**

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

**化学物质安全性评价:** 尚未进行化学物质安全性评价

## 16 其他信息

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

**缩写:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- 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4类: Flammable liquids – Category 4
- 急性毒性(吸入) 第4类: Acute toxicity – Category 4
- 急性毒性(吸入) 第5类: Acute toxicity – Category 5
- 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
- 对水环境的危害(急性) 第1类: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

# Bezpečnostní list

## podle 1907/2006/ES, Článek 31

Datum vydání: 10.08.2016

Revize: 10.08.2016

### ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Číslo výrobku:** 16214, 16216, 16216-10
- **1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití**  
Další relevantní informace nejsou k dispozici.
- **Použití látky / přípravku** Laboratorní chemikálie
- **1.3 Podrobné údaje o dodavateli bezpečnostního listu**
- **Identifikace výrobce/dovozce:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Obor poskytující informace:** Product safety department
- **1.4 Telefonní číslo pro naléhavé situace:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ODDÍL 2: Identifikace nebezpečnosti

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



GHS08 nebezpečnost pro zdraví

Resp. Sens. 1 H334 Při vdechování může vyvolat příznaky alergie nebo astmatu nebo dýchací potíže.



GHS05 korozivita

Skin Corr. 1B H314 Způsobuje těžké poleptání kůže a poškození očí.

Eye Dam. 1 H318 Způsobuje vážné poškození očí.



GHS09 životní prostředí

Aquatic Acute 1 H400 Vysoce toxický pro vodní organismy.



GHS07

Skin Sens. 1 H317 Může vyvolat alergickou kožní reakci.

STOT SE 3 H335 Může způsobit podráždění dýchacích cest.

- **2.2 Prvky označení**
- **Označování v souladu s nařízením (ES) č. 1272/2008** Produkt je klasifikován a označen podle nařízení CLP.

(pokračování na straně 2)

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(pokračování strany 1)

### · Výstražné symboly nebezpečnosti



GHS05 GHS07 GHS08 GHS09

### · Signální slovo Nebezpečí

### · Nebezpečné komponenty k etiketování:

Glutaraldehyd

### · Standardní věty o nebezpečnosti

H314 Způsobuje těžké poleptání kůže a poškození očí.

H334 Při vdechování může vyvolat příznaky alergie nebo astmatu nebo dýchací potíže.

H317 Může vyvolat alergickou kožní reakci.

H335 Může způsobit podráždění dýchacích cest.

H400 Vysoce toxický pro vodní organismy.

### · Pokyny pro bezpečné zacházení

P260 Nevdechujte prach/dým/plyn/mlhu/páry/aerosoly.

P303+P361+P353 PŘI STYKU S KŮŽÍ (nebo s vlasy): Veškeré kontaminované části oděvu okamžitě svlékněte. Opláchněte kůži vodou/osprchujte.

P305+P351+P338 PŘI ZASAŽENÍ OČÍ: Několik minut opatrně vyplachujte vodou. Vyjměte kontaktní čočky, jsou-li nasazeny a pokud je lze vyjmout snadno. Pokračujte ve vyplachování.

P310 Okamžitě volejte TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO/lékaře.

P405 Skladujte uzamčené.

P501 Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.

### · 2.3 Další nebezpečnost

#### · Výsledky posouzení PBT a vPvB

· **PBT:** Nedá se použít.· **vPvB:** Nedá se použít.

## ODDÍL 3: Složení/informace o složkách

### · 3.2 Chemická charakteristika: Směsi

· **Popis:** Směs obsahuje následné látky bez nebezpečných příměsí.

### · Výrobek obsahuje tyto nebezpečné látky:

CAS: 111-30-8	Glutaraldehyd	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· **Dodatečná upozornění:** Znění uvedených údajů o nebezpečnosti látky je uvedeno v kapitole 16.

## ODDÍL 4: Pokyny pro první pomoc

### · 4.1 Popis první pomoci

#### · Všeobecné pokyny:

Neprodlene odstranit části oděvu znečištěné produktem.

Příznaky otravy se mohou projevit až po mnoha hodinách, proto je nutný lékařský dohled nejméně 48 hodin po nehodě.

#### · Při nadýchání:

Bohatý přívod čerstvého vzduchu a pro jistotu vyhledat lékaře.

Při bezvědomí uložit a přepravit ve stabilní poloze na boku.

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- **Při styku s kůží:** Ihned omýt vodou a mýdlem a dobře opláchnout.
- **Při zasažení očí:** Otevřené oči po více minut oplachovat pod tekoucí vodou a poradit se s lékařem.
- **Při požití:**  
Ihned vyhledat lékaře.  
Bohatě zapíjet vodou a dýchat čerstvý vzduch. Neprodleně vyhledat lékaře.
- **4.2 Nejdůležitější akutní a opožděné symptomy a účinky** Další relevantní informace nejsou k dispozici.
- **4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření**  
Další relevantní informace nejsou k dispozici.

### ODDÍL 5: Opatření pro hašení požáru

- **5.1 Hasiva**
- **Vhodná hasiva:**  
CO<sub>2</sub>, hasící prášek nebo rozestříkované vodní paprsky. Větší ohně zdolat rozestříkovanými vodními paprsky nebo pěnou odolnou vůči alkoholu.
- **5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** Další relevantní informace nejsou k dispozici.
- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** Použít ochranný dýchací přístroj.

### ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy**  
Nosit ochrannou výstroj. Nechráněné osoby se nesmí přibližovat.
- **6.2 Opatření na ochranu životního prostředí:**  
Při vniknutí do kanalizace nebo vodního toku informovat příslušné orgány.  
Zředit velkým množstvím vody.  
Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**  
Sebrat s materiály, vázícími kapaliny (písek, šterkový písek, pojidla kyselin, universální pojidla, piliny).  
Použít neutralizační prostředky.  
Kontaminovaný materiál odstranit jako odpad podle bodu 13.  
Zajistit dostatečné větrání.
- **6.4 Odkaz na jiné oddíly**  
Informace o bezpečnému zacházení viz kapitola 7.  
Informace o osobní ochranné výstroji viz kapitola 8.  
Informace k odstranění viz kapitola 13.

### ODDÍL 7: Zacházení a skladování

- **7.1 Opatření pro bezpečné zacházení**  
Na pracovišti zabezpečit dobré větrání a odsávání.  
Zamezit vytváření aerosolů.
- **Upozornění k ochraně před ohněm a explozí:** Chránit před horkem.
- **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**
- **Pokyny pro skladování:**
- **Požadavky na skladovací prostory a nádoby:** Žádné zvláštní požadavky.
- **Upozornění k hromadnému skladování:** Není nutné.
- **Další údaje k podmínkám skladování:**  
Nádrž držet neprodyšně uzavřenou.  
Chránit před horkem a přímým slunečním světlem.

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· 7.3 **Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici. (pokračování strany 3)

### ODDÍL 8: Omezování expozice / osobní ochranné prostředky

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

#### · 8.1 Kontrolní parametry

· **Kontrolní parametry:**

#### 111-30-8 Glutaraldehyd

NPK	Krátkodobá hodnota: 0,4 mg/m <sup>3</sup> Dlouhodobá hodnota: 0,2 mg/m <sup>3</sup> I, S
-----	--

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

#### · 8.2 Omezování expozice

· **Osobní ochranné prostředky:**

· **Všeobecná ochranná a hygienická opatření:**

Zdržovat od potravin, nápojů a krmiv.

Zašpiněné, nasáknuté šaty ihned vysvléci.

Před přestávkami a po práci umýt ruce.

Zamezit styku se zrakem.

Zamezit styku s pokožkou a zrakem.

· **Ochrana dýchacích orgánů:**

Při krátkodobém nebo nízkém zatížení použít dýchací přístroj s filtrem, při intenzivním nebo delším zatížení se musí použít dýchací přístroj nezávislý na okolním vzduchu.

· **Ochrana rukou:**



Ochranné rukavice

Materiál rukavic musí být nepropustný a odolný proti produktu / látce / směsi.

Vzhledem k tomu, že chybí testy, není možné doporučit materiál rukavic pro produkt / přípravek / chemickou směs.

Výběr materiálu rukavic proveďte podle času průniku, permeability a degradace.

· **Materiál rukavic**

Správný výběr rukavic nezávisí jen na materiálu, ale také na dalších kritériích, která se liší podle výrobce. Protože je výrobek směs více látek, nelze materiál rukavic předem vypočítat a je nutno udělat před použitím zkoušku.

· **Doba průniku materiálem rukavic**

Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.

· **Ochrana očí:**



Uzavřené ochranné brýle

### ODDÍL 9: Fyzikální a chemické vlastnosti

· **9.1 Informace o základních fyzikálních a chemických vlastnostech**

· **Všeobecné údaje**

· **Vzhled:**

Skupenství:

Kapalná

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<b>Barva:</b>	Podle označení produktu
· <b>Zápach (vůně):</b>	Po plodech
· <b>Prahová hodnota zápachu:</b>	Není určeno.
· <b>Hodnota pH:</b>	Není určeno.
· <b>Změna stavu</b>	
<b>Teplota (rozsah teplot) tání:</b>	Není určeno.
<b>Teplota (rozsah teplot) varu:</b>	100 °C
· <b>Bod vzplanutí:</b>	71 °C
· <b>Zápalnost (tuhé, plynné skupenství):</b>	Nedá se použít.
· <b>Zápalná teplota:</b>	
<b>Teplota rozkladu:</b>	Není určeno.
· <b>Samozápalnost:</b>	Produkt není samozápalný.
· <b>Nebezpečí exploze:</b>	Není určeno.
· <b>Meze výbušnosti:</b>	
<b>Dolní mez:</b>	Není určeno.
<b>Horní mez:</b>	Není určeno.
· <b>Tenze par při 20 °C:</b>	23 hPa
· <b>Hustota při 20 °C:</b>	1,129 g/cm <sup>3</sup>
· <b>Relativní hustota</b>	Není určeno.
· <b>Hustota par</b>	Není určeno.
· <b>Rychlost odpařování</b>	Není určeno.
· <b>Rozpuštěnost ve / směšitelnost s vodě:</b>	Úplně mísitelná.
· <b>Rozdělovací koeficient n-oktanol/voda:</b>	Není určeno.
· <b>Viskozita:</b>	
<b>Dynamicky:</b>	Není určeno.
<b>Kinematicky:</b>	Není určeno.
· <b>Obsah ředidel:</b>	
<b>Organická ředidla:</b>	0,3 %
<b>Voda:</b>	74,8 %
<b>VOC (EC)</b>	0,25 %
· <b>9.2 Další informace</b>	Další relevantní informace nejsou k dispozici.

### ODDÍL 10: Stálost a reaktivita

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

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· **10.6 Nebezpečné produkty rozkladu:** Nejsou známy žádné nebezpečné produkty při rozkladu.

### ODDÍL 11: Toxikologické informace

- **11.1 Informace o toxikologických účincích**
- **Akutní toxicita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

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

#### 111-30-8 Glutaraldehyd

Orálně	LD50	134 mg/kg (rat)
Pokožkou	LD50	2560 mg/kg (rabbit)

- **Primární dráždivé účinky:**
- **Žíravost/dráždivost pro kůži**  
Způsobuje těžké poleptání kůže a poškození očí.
- **Vážné poškození očí / podráždění očí**  
Způsobuje vážné poškození očí.
- **Senzibilizace dýchacích cest / senzibilizace kůže**  
Při vdechování může vyvolat příznaky alergie nebo astmatu nebo dýchací potíže.  
Může vyvolat alergickou kožní reakci.
- **Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)**
- **Mutagenita v zárodečných buňkách** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Karcinogenita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro reprodukci** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro specifické cílové orgány – jednorázová expozice**  
Může způsobit podráždění dýchacích cest.
- **Toxicita pro specifické cílové orgány – opakovaná expozice**  
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Nebezpečnost při vdechnutí** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

### ODDÍL 12: Ekologické informace

- **12.1 Toxicita**
- **Aquatická toxicita:** Další relevantní informace nejsou k dispozici.
- **12.2 Perzistence a rozložitelnost** Další relevantní informace nejsou k dispozici.
- **12.3 Bioakumulační potenciál** Další relevantní informace nejsou k dispozici.
- **12.4 Mobilita v půdě** Další relevantní informace nejsou k dispozici.
- **Ekotoxické účinky:**
- **Poznámka:** Velmi jedovatý pro ryby.
- **Další ekologické údaje:**
- **Všeobecná upozornění:**  
Třída ohrožení vody 3 (Samozářazení): silně ohrožuje vodu  
Nesmí vniknout do spodní vody, povodí nebo do kanalizace, ani v malých množstvích.  
Nesmí nezředito nebo nezneutralizováno proniknout do odpadních vod nebo jímek.  
Ohrožuje pitnou vodu už při proniknutí nepatrného množství do zeminy.  
V povodích je také jedovatá pro ryby a plankton.  
velmi jedovatá pro vodní organismy
- **12.5 Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.
- **12.6 Jiné nepříznivé účinky** Další relevantní informace nejsou k dispozici.

CZ

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### ODDÍL 13: Pokyny pro odstraňování

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

### ODDÍL 14: Informace pro přepravu

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN číslo</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | UN3265  |
| <ul style="list-style-type: none"> <li>· <b>14.2 Oficiální (OSN) pojmenování pro přepravu</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>   | 3265 LÁTKA ŽÍRAVÁ, KAPALNÁ, KYSELÁ, ORGANICKÁ, J.N. (Glutaraldehyd), OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ<br>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde), MARINE POLLUTANT<br>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.<br>(Glutaraldehyde)   |
| <ul style="list-style-type: none"> <li>· <b>14.3 Třída/třídy nebezpečnosti pro přepravu</b></li> <li>· <b>ADR, IMDG</b></li> </ul>   | <div style="display: flex; align-items: center;">   </div> <ul style="list-style-type: none"> <li>· <b>třída</b></li> <li>· <b>Etiketa</b></li> </ul> |
| <ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>  | <div style="display: flex; align-items: center;">  </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>14.4 Obalová skupina</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | III   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Nebezpečnost pro životní prostředí:</b></li> <li>· <b>Látka znečišťující moře:</b></li> <li>· <b>Zvláštní označení (ADR):</b></li> </ul>  | Produkt obsahuje látky ohrožující životní prostředí:<br>Glutaraldehyd<br>Symbol (ryba a strom)<br>Symbol (ryba a strom)   |
| <ul style="list-style-type: none"> <li>· <b>14.6 Zvláštní bezpečnostní opatření pro uživatele</b></li> <li>· <b>Kemlerovo číslo:</b></li> <li>· <b>EMS-skupina:</b></li> <li>· <b>Segregation groups</b></li> <li>· <b>Stowage Category</b></li> </ul> | Varování: Žíravé látky<br>88<br>F-A,S-B<br>Acids<br>A   |

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· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC</b>	Nedá se použít.
· <b>Přeprava/další údaje:</b>	
· <b>ADR</b>	
· <b>Omezené množství (LQ)</b>	5L
· <b>Vyňatá množství (EQ)</b>	Kód: E1 Nejvyšší čisté množství na vnitřní obal: 30 ml Nejvyšší čisté množství na vnější obal: 1000 ml
· <b>Přepavní kategorie</b>	3
· <b>Kód omezení pro tunely:</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 LÁTKA ŽÍRAVÁ, KAPALNÁ, KYSELÁ, ORGANICKÁ, J.N. (GLUTARALDEHYD), 8, III, OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ

### ODDÍL 15: Informace o předpisech

- **15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi**
- **Rady 2012/18/EU**
- **Nebezpečné látky jmenovitě uvedené - PŘÍLOHA I methanol**
- **Kategorie Seveso E1 Nebezpečnost pro vodní prostředí**
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 100 t**
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 200 t**
- **Rady (ES) č. 1907/2006 PŘÍLOHA XVII Omezující podmínky: 3**
- **15.2 Posouzení chemické bezpečnosti: Posouzení chemické bezpečnosti nebylo provedeno.**

### ODDÍL 16: Další informace

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

#### · **Relevantní věty**

H314 Způsobuje těžké poleptání kůže a poškození očí.

H317 Může vyvolat alergickou kožní reakci.

H332 Zdraví škodlivý při vdechování.

H334 Při vdechování může vyvolat příznaky alergie nebo astmatu nebo dýchací potíže.

H400 Vysoce toxický pro vodní organismy.

#### · **Zkratky a akronymy:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

(pokračování na straně 9)

**Bezpečnostní list**  
**podle 1907/2006/ES, Článek 31**

Datum vydání: 10.08.2016

Revize: 10.08.2016

**Obchodní označení: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

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

Acute Tox. 4: Akutní toxicita – Kategorie 4

Skin Corr. 1B: Žíravost/dráždivost pro kůži – Kategorie 1B

Eye Dam. 1: Vážné poškození očí / podráždění očí – Kategorie 1

Resp. Sens. 1: Senzibilizace dýchacích cest – Kategorie 1

Skin Sens. 1: Senzibilizace kůže – Kategorie 1

STOT SE 3: Toxicita pro specifické cílové orgány (jednorázová expozice) – Kategorie 3

Aquatic Acute 1: Nebezpečnost pro vodní prostředí - akutní nebezpečnost pro vodní prostředí – Kategorie 1

(pokračování strany 8)

CZ

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 10.08.2016

Herziening van: 10.08.2016

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

- **1.1 Productidentificatie**
- **Handelsnaam:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Artikelnummer:** 16214, 16216, 16216-10
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

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



GHS08 gezondheidsgevaar

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.



GHS09 milieu

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



GHS07

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 10.08.2016

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**Handelsnaam: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Vervolg van blz. 1)

*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 GHS07 GHS08 GHS09

#### · Signaalwoord Gevaar

#### · Gevaaraanduidende componenten voor de etikettering:

*Glutaaraldehyd*

#### · Gevarenaanduidingen

*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.*

#### · Veiligheidsaanbevelingen

*P260 Stof/rook/gas/nevel/damp/spuitnevel niet inademen.*

*P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen/afdouchen.*

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

*P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.*

*P405 Achter slot bewaren.*

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

#### · 2.3 Andere gevaren

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

· **PBT:** Niet bruikbaar.

· **zPzB:** Niet bruikbaar.

## RUBRIEK 3: Samenstelling en informatie over de bestanddelen

### · 3.2 Chemische karakterisering: Mengsels

· **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

#### · Gevaarlijke inhoudstoffen:

CAS: 111-30-8	Glutaaraldehyd	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Acute Tox. 4, H332; Skin Sens. 1, H317	

#### · Aanvullende gegevens:

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

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

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(Vervolg van blz. 2)

### 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.

· **Na het inademen:**

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

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

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

· **Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.

· **Na inslikken:**

Onmiddellijk arts 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:**

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

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

Geen verdere relevante informatie verkrijgbaar.

· **5.3 Advies voor brandweelieden**

· **Speciale beschermende kleding:** Ademhalingsstoestel aantrekken.

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

· **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**

Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.

· **6.2 Milieuvoorzorgsmaatregelen:**

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 terechtkomen.

· **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.

NE  
(Vervolg op blz. 4)

# Veiligheidsinformatieblad

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(Vervolg van blz. 3)

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.  
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Beschermen tegen hitte.
- **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.  
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

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

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**  
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Aanraking met de ogen vermijden.  
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**  
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.
- **Handbescherming:**



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.

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

· **Oogbescherming:**



Nauw aansluitende veiligheidsbril

## RUBRIEK 9: Fysische en chemische eigenschappen

· **9.1 Informatie over fysische en chemische basiseigenschappen**

· **Algemene gegevens**

· **Voorkomen:**

· <b>Vorm:</b>	Vloeibaar
· <b>Kleur:</b>	Volgens de produktbeschrijving
· <b>Reuk:</b>	Vruchtachtig
· <b>Geurdrempelwaarde:</b>	Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

· <b>Smeltpunt/smeltbereik:</b>	Niet bepaald.
· <b>Kookpunt/kookpuntbereik:</b>	100 °C

· **Vlampunt:** 71 °C

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

· **Ontstekingstemperatuur:**

· **Ontbindingstemperatuur:** Niet bepaald.

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

· **Ontploffingsgevaar:** Niet bepaald.

· **Ontploffingsgrenzen:**

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

· **Dampspanning bij 20 °C:** 23 hPa

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

· **Relatieve dichtheid:** Niet bepaald.

· **Dampdichtheid:** Niet bepaald.

· **Verdampingsnelheid:** Niet bepaald.

· **Oplosbaarheid in/mengbaarheid met**

· **Water:** Volledig mengbaar.

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

· **Viscositeit**

· **Dynamisch:** Niet bepaald.

· **Kinematisch:** Niet bepaald.

· **Oplosmiddelgehalte:**

· <b>Organisch oplosmiddel:</b>	0,3 %
· <b>Water:</b>	74,8 %
· <b>VOC (EG)</b>	0,25 %

(Vervolg op blz. 6)







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(Vervolg van blz. 6)

- 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
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
  - **PBT:** Niet bruikbaar.
  - **zPzB:** Niet bruikbaar.
  - **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 13: Instructies voor verwijdering

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

## RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN3265
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 3265 BIJTENDE ZURE ORGANISCHE VLOEISTOF, N.E.G. (Glutaaraldehyd), MILIEUGEVAARLIJK
- **IMDG** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT
- **IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
- **14.3 Transportgevarenklasse(n)**
- **ADR, IMDG**
- 
- **klasse** 8 Bijtende stoffen
- **Etiket** 8
- **IATA**
- 
- **Class** 8 Bijtende stoffen
- **Label** 8
- **14.4 Verpakkingsgroep:**
- **ADR, IMDG, IATA** III

(Vervolg op blz. 8)

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(Vervolg van blz. 7)

· <b>14.5 Milieugevaren:</b>	Produkt bevat milieugevaarlijke stoffen: Glutaaraldehyd
· <b>Marine pollutant:</b>	Symbool (vis en boom)
· <b>Bijzondere kenmerking (ADR):</b>	Symbool (vis en boom)
· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b>	Waarschuwing: Bijtende stoffen
· <b>Kemler-getal:</b>	88
· <b>EMS-nummer:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>	Niet bruikbaar.
· <b>Transport/verdere gegevens:</b>	
· <b>ADR</b>	
· <b>Beperkte hoeveelheden (LQ)</b>	5L
· <b>Uitgezonderde hoeveelheden (EQ)</b>	Code: E1 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 1000 ml
· <b>Vervoerscategorie</b>	3
· <b>Tunnelbeperkingscode</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>VN "Model Regulation":</b>	UN 3265 BIJTENDE ZURE ORGANISCHE VLOEISTOF, N.E.G. (GLUTAARALDEHYD), 8, III, 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

67-56-1 | methanol

1B

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

geen der bestanddelen staat op de lijst.

#### · Richtlijn 2012/18/EU

#### · Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I methanol

#### · Seveso-categorie E1 Gevaar voor het aquatisch milieu

#### · Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 100 t

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

(Vervolg op blz. 9)

# Veiligheidsinformatieblad

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(Vervolg van blz. 8)

- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3
- **Nationale voorschriften:**
- **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 5: Saneringsinspanning B
- **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

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H317 Kan een allergische huidreactie veroorzaken.

H332 Schadelijk bij inademing.

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

H400 Zeer giftig voor in het water levende organismen.

#### · Afkortingen en acroniemen:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxiciteit – Categorie 4

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

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

Resp. Sens. 1: Sensibilisatie van de luchtwegen – Categorie 1

Skin Sens. 1: Sensibilisatie van de huid – 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

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 10.08.2016

Révision: 10.08.2016

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

- **1.1 Identificateur de produit**
- **Nom du produit:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Code du produit:** 16214, 16216, 16216-10
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

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



GHS08 danger pour la santé

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 des brûlures de la peau et des lésions oculaires graves.

Eye Dam. 1 H318 Provoque des lésions oculaires graves.



GHS09 environnement

Aquatic Acute 1 H400 Très toxique pour les organismes aquatiques.



GHS07

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 H335 Peut irriter les voies respiratoires.

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

(suite page 2)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 10.08.2016

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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 1)

### · Pictogrammes de danger



GHS05   GHS07   GHS08   GHS09

### · Mention d'avertissement Danger

#### · Composants dangereux déterminants pour l'étiquetage:

glutaral

#### · Mentions de danger

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

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.

#### · Conseils de prudence

P260 Ne pas respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau/Se doucher.

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.

P310 Appeler immédiatement un CENTRE ANTIPOISON/un médecin.

P405 Garder sous clef.

P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

#### · 2.3 Autres dangers

#### · Résultats des évaluations PBT et vPvB

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

## RUBRIQUE 3: Composition/informations sur les composants

### · 3.2 Caractérisation chimique: Mélanges

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

#### · Composants dangereux:

CAS: 111-30-8	glutaral	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· **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.

#### · Après inhalation:

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

(suite page 3)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 2)

- 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:**  
Consulter immédiatement un médecin.  
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:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** 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.
- **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.  
Évacuer 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.  
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Tenir à l'abri de la chaleur.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.

(suite page 4)

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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 3)

- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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

- **Indications complémentaires pour l'agencement des installations techniques:**  
Sans autre indication, voir point 7.

#### · 8.1 Paramètres de contrôle

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

#### 111-30-8 glutaral

VME	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

- **Remarques supplémentaires:**

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

#### · 8.2 Contrôles de l'exposition

- **Equipement de protection individuel:**

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

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

Retirer immédiatement les vêtements souillés ou humectés.

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

Eviter tout contact avec les yeux.

Eviter tout contact avec les yeux et avec la peau.

- **Protection respiratoire:**

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

- **Protection des mains:**



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.

(suite page 5)



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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 4)

· **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>	Selon désignation produit
<b>Odeur:</b>	Fruitée
<b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

<b>Point de fusion:</b>	Non déterminé.
<b>Point d'ébullition:</b>	100 °C

· **Point d'éclair** 71 °C

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

· **Température d'inflammation:**

**Température de décomposition:** Non déterminé.

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

· **Danger d'explosion:** Non déterminé.

· **Limites d'explosion:**

<b>Inférieure:</b>	Non déterminé.
<b>Supérieure:</b>	Non déterminé.

· **Pression de vapeur à 20 °C:** 23 hPa

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

· **Densité relative** Non déterminé.

· **Densité de vapeur.** Non déterminé.

· **Vitesse d'évaporation** Non déterminé.

· **Solubilité dans/miscibilité avec l'eau:**

Entièrement miscible

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

· **Viscosité:**

<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.

· **Teneur en solvants:**

<b>Solvants organiques:</b>	0,3 %
<b>Eau:</b>	74,8 %
<b>VOC (CE)</b>	0,25 %

(suite page 6)



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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 5)

· **9.2 Autres informations** Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

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

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

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

#### 111-30-8 glutaral

Oral	LD50	134 mg/kg (rat)
Dermique	LD50	2560 mg/kg (lapin)

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque des brûlures de la peau et des lésions oculaires graves.
- **Lésions oculaires graves/irritation oculaire**  
Provoque des lésions oculaires graves.
- **Sensibilisation respiratoire ou cutanée**  
Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.  
Peut provoquer une allergie cutanée.
- **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.

(suite page 7)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 6)

· **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.

· **12.5 Résultats des évaluations PBT et VPVB**

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

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

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

· **13.1 Méthodes de traitement des déchets**

· **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.

· **Emballages non nettoyés:**

· **Recommandation:** Evacuation conformément aux prescriptions légales.

· **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

### RUBRIQUE 14: Informations relatives au transport

· **14.1 Numéro ONU**

· **ADR, IMDG, IATA**

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**

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

· **IATA**

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

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

· **ADR, IMDG**



· **Classe**

8 Matières corrosives.

· **Étiquette**

8

· **IATA**



· **Class**

8 Matières corrosives.

(suite page 8)

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

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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 7)

· <b>Label</b>	8
· <b>14.4 Groupe d'emballage</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Dangers pour l'environnement:</b>  · <b>Marine Pollutant:</b> · <b>Marquage spécial (ADR):</b>	<i>Le produit contient matières dangereuses pour l'environnement : glutaral</i> <i>Signe conventionnel (poisson et arbre)</i> <i>Signe conventionnel (poisson et arbre)</i>
· <b>14.6 Précautions particulières à prendre par l'utilisateur</b> · <b>Indice Kemler:</b> · <b>No EMS:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	<i>Attention: Matières corrosives.</i> 88 F-A,S-B Acids A SW2 Clear of living quarters.
· <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b>	<i>Non applicable.</i>
· <b>Indications complémentaires de transport:</b>	
· <b>ADR</b> · <b>Quantités limitées (LQ)</b> · <b>Quantités exceptées (EQ)</b>  · <b>Catégorie de transport</b> · <b>Code de restriction en tunnels</b>	5L Code: E1 <i>Quantité maximale nette par emballage intérieur: 30 ml</i> <i>Quantité maximale nette par emballage extérieur: 1000 ml</i> 3 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 1000 ml</i>
· <b>"Règlement type" de l'ONU:</b>	<i>UN 3265 LIQUIDE ORGANIQUE CORROSIF, ACIDE, N.S.A. (GLUTARAL), 8, III, DANGEREUX POUR L'ENVIRONNEMENT</i>

### **RUBRIQUE 15: Informations relatives à la réglementation**

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
  - **Directive 2012/18/UE**
  - **Substances dangereuses désignées - ANNEXE I méthanol**
  - **Catégorie SEVESO E1** Danger pour l'environnement aquatique
  - **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 100 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
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

FR

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**Fiche de données de sécurité**  
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**Nom du produit: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(suite de la page 8)

### **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**

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

H317 Peut provoquer une allergie cutanée.

H332 Nocif par inhalation.

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

H400 Très toxique pour les organismes aquatiques.

· **Acronymes et abréviations:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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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

Acute Tox. 4: Toxicité aiguë – Catégorie 4

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

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

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 10.08.2016

überarbeitet am: 10.08.2016

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

- **1.1 Produktidentifikator**
- **Handelsname:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Artikelnummer:** 16214, 16216, 16216-10
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
24h Giftnotruf Munchen: +49 (0)89 19240  
Toxikologische Abteilung der II. Medizinischen Klinik  
rechts der Isar, Munchen. - www.toxinfo.org
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

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



GHS08 Gesundheitsgefahr

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



GHS05 Ätzwirkung

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.

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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 GHS07 GHS08 GHS09

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Glutaral

#### · Gefahrenhinweise

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.

#### · Sicherheitshinweise

P260 Staub/Rauch/Gas/Nebel/Dampf/Aerosol nicht einatmen.

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

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

P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.

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.

· **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	Glutaral	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

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### 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.

##### · Nach Einatmen:

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.

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

##### · Nach Augenkontakt:

Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.

##### · Nach Verschlucken:

Sofort Arzt aufsuchen.

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:

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

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

Keine weiteren relevanten Informationen verfügbar.

#### · 5.3 Hinweise für die Brandbekämpfung

##### · Besondere Schutzausrüstung: 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.

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### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Vor Hitze schützen.
- **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.  
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

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

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

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

#### 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
-----	--

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



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

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

- **Handschuhmaterial**

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

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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:**

<b>Form:</b>	Flüssig
<b>Farbe:</b>	Gemäß Produktbezeichnung
<b>Geruch:</b>	Fruchtartig
<b>Geruchsschwelle:</b>	Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.

· **Zustandsänderung**

<b>Schmelzpunkt/Schmelzbereich:</b>	Nicht bestimmt.
<b>Siedepunkt/Siedebereich:</b>	100 °C

· **Flammpunkt:** 71 °C

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

· **Zündtemperatur:**

**Zersetzungstemperatur:** Nicht bestimmt.

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

· **Explosionsgefahr:** Nicht bestimmt.

· **Explosionsgrenzen:**

<b>Untere:</b>	Nicht bestimmt.
<b>Obere:</b>	Nicht bestimmt.

· **Dampfdruck bei 20 °C:** 23 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.

· **Löslichkeit in / Mischbarkeit mit**

**Wasser:** Vollständig mischbar.

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

· **Viskosität:**

<b>Dynamisch:</b>	Nicht bestimmt.
<b>Kinematisch:</b>	Nicht bestimmt.

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<b>· Lösemittelgehalt:</b>	
<b>Organische Lösemittel:</b>	0,3 %
<b>Wasser:</b>	74,8 %
<b>VOC (EU)</b>	0,25 %
<b>· 9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

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

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

**· Einstufungsrelevante LD/LC50-Werte:**
**111-30-8 Glutaral**

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 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.
- **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.

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- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Ökotoxische Wirkungen:**
- **Bemerkung:** Sehr 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
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

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

### ABSCHNITT 14: Angaben zum Transport

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | UN3265  |
| <ul style="list-style-type: none"> <li>· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | 3265 ÄTZENDER SAURER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (Glutaral), UMWELTGEFÄHRDEND CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde) |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR, IMDG</b></li> </ul>   | 8 Ätzende Stoffe<br>8   |



- **Klasse**
- **Gefahrzettel**

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**· IATA**


· **Class** 8 Ätzende Stoffe  
 · **Label** 8

· **14.4 Verpackungsgruppe**  
 · **ADR, IMDG, IATA** III

· **14.5 Umweltgefahren:** Das Produkt enthält umweltgefährdende Stoffe: Glutaral  
 · **Marine pollutant:** Symbol (Fisch und Baum)  
 · **Besondere Kennzeichnung (ADR):** Symbol (Fisch und Baum)

· **14.6 Besondere Vorsichtsmaßnahmen für den Verwender** Achtung: Ätzende Stoffe  
 · **Kemler-Zahl:** 88  
 · **EMS-Nummer:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** A  
 · **Stowage Code** SW2 Clear of living quarters.

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

**· Transport/weitere Angaben:**

· **ADR**  
 · **Begrenzte Menge (LQ)** 5L  
 · **Freigestellte Mengen (EQ)** Code: E1  
 Höchste Nettomenge je Innenverpackung: 30 ml  
 Höchste Nettomenge je Außenverpackung: 1000 ml  
 · **Beförderungskategorie** 3  
 · **Tunnelbeschränkungscode** E

· **IMDG**  
 · **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 3265 ÄTZENDER SAURER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (GLUTARAL), 8, III, 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 Methanol**
- **Seveso-Kategorie E1** Gewässergefährdend
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 100 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t

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

· **Nationale Vorschriften:**

· **Technische Anleitung Luft:**

Klasse	Anteil in %
Wasser	74,8
I	25,3

· **Wassergefährdungsklasse:** WGK 3 (Selbsteinstufung): stark wassergefährdend.

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

### ABSCHNITT 16: Sonstige Angaben

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

· **Relevante Sätze**

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H317 Kann allergische Hautreaktionen verursachen.

H332 Gesundheitsschädlich bei Einatmen.

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

H400 Sehr giftig für Wasserorganismen.

· **Abkürzungen und Akronyme:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Akute Toxizität – Kategorie 4

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

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

Aquatic Acute 1: Gewässergefährdend - akut gewässergefährdend – Kategorie 1

# Biztonsági adatlap

## 1907/2006/EK, 31. cikk szerint

A nyomtatás kelte 10.08.2016

Felülvizsgálat 10.08.2016

### 1. SZAKASZ: Az anyag/keverék és a vállalat/vállalkozás azonosítása

- **1.1 Termékazonosító**
- **Kereskedelmi megnevezés:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Cikkszám:** 16214, 16216, 16216-10
- **1.2 Az anyag vagy keverék lényeges azonosított felhasználásai, illetve ellenjavallt felhasználásai**  
További lényeges információk nem állnak rendelkezésre.
- **Anyag/készítmény használata** Laboratóriumi vegyületek
- **1.3 A biztonsági adatlap szállítójának adatai**
- **Gyártó/szállító:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcek@aol.com  
www.emsdiasum.com
- **Információt nyújtó terület:** Product safety department
- **1.4 Sürgősségi telefonszám:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2. SZAKASZ: A veszély azonosítása

- **2.1 Az anyag vagy keverék besorolása**
- **Az 1272/2008/EK rendelet szerinti osztályozás**



GHS08 egészségi veszély

Resp. Sens. 1 H334 Belélegezve allergiás és asztmás tüneteket, és nehéz légzést okozhat.



GHS05 maró anyagok

Skin Corr. 1B H314 Súlyos égési sérülést és szemkárosodást okoz.

Eye Dam. 1 H318 Súlyos szemkárosodást okoz.



GHS09 környezet

Aquatic Acute 1 H400 Nagyon mérgező a vízi élővilágra.



GHS07

Skin Sens. 1 H317 Allergiás bőrreakciót válthat ki.

STOT SE 3 H335 Légúti irritációt okozhat.

- **2.2 Címkézési elemek**

- **Az 1272/2008/EK rendelet szerinti címkézés**

A termék a CLP-rendelet (Anyagok és Keverékek Osztályozásáról, Címkzéséről és Csomagolásáról szóló rendelet) szerint osztályozva és címkézve.

(folytatás a 2. oldalon)

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(folytatás az 1. oldalról)

· **Veszélyt jelző piktogramok**



GHS05   GHS07   GHS08   GHS09

· **Figyelmeztetés Veszély**

· **Veszélyt meghatározó komponensek a címkézéshez:**

Glutaral

· **Figyelmeztető mondatok**

H314 Súlyos égési sérülést és szemkárosodást okoz.

H334 Belélegezve allergiás és asztmás tüneteket, és nehéz légzést okozhat.

H317 Allergiás bőrreakciót válthat ki.

H335 Légúti irritációt okozhat.

H400 Nagyon mérgező a vízi élővilágra.

· **Óvintézkedésre vonatkozó mondatok**

P260 A por/füst/gáz/köd/gőzök/permet belélegzése tilos.

P303+P361+P353 HA BŐRRE (vagy hajra) KERÜL: Az összes szennyezett ruhadarabot azonnal le kell vetni. A bőrt le kell öblíteni vízzel/zuhanyozás.

P305+P351+P338 SZEMBE KERÜLÉS esetén: Több percig tartó óvatos öblítés vízzel. Adott esetben a kontaktlencsék eltávolítása, ha könnyen megoldható. Az öblítés folytatása.

P310 Azonnal forduljon TOXIKOLÓGIAI KÖZPONTHOZ/orvoshoz.

P405 Elzárva tárolandó.

P501 Az edény tartalmát / a tartályt a helyi/regionális/nemzeti/nemzetközi szabályozásoknak megfelelően kell hulladékként elhelyezni.

· **2.3 Egyéb veszélyek**

· **A PBT- és a vPvB-értékelés eredményei**

· **PBT:** Nem alkalmazható

· **vPvB:** Nem alkalmazható

### 3. SZAKASZ: Összetétel vagy az összetevőkre vonatkozó adatok

· **3.2 Kémiai jellemzés: Keverékek**

· **Leírás:** Az alábbi anyagokból álló, veszélytelen adalékokat tartalmazó keverék.

· **Veszélyes alkotórészek:**

111-30-8	Glutaral	10-25%
<p>⚠ Resp. Sens. 1, H334; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317</p>		

· **További információk:** A megadott veszélyességi utalások szövege a 16. fejezetben található.

### 4. SZAKASZ: Elsősegély-nyújtási intézkedések

· **4.1 Az elsősegély-nyújtási intézkedések ismertetése**

· **Általános információk:**

A termék által szennyezett ruhadarabokat haladéktalanul távolítsuk el.

A mérgezési tünetek csak több óra elteltevel lépnek fel, ezért orvosi felügyelet szükséges a baleset bekövetkeztétől számított 8 órán keresztül.

· **Belélegzés után:**

Gondoskodjunk bőéges friss levegőről és a biztonság okából keressük fel az orvost.

Eszméletvesztés esetén a fektetés és szállítás stabil, oldalra fektetett helyzetben történjék.

(folytatás a 3. oldalon)



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(folytatás a 2. oldalról)

- **Bőrrel való érintkezés után:** Azonnal mossuk le vízzel és szappannal és jól öblítsük le.
- **A szemmel való érintkezés után:**  
A szemet folyó víz alatt néhány percen át öblítsük le, miközben a szemhéjat nyitva tartjuk és kérjünk orvosi tanácsot.
- **Lenyelés után:**  
Azonnal keressük fel az orvost.  
Itasunk sok vizet és gondoskodjunk friss levegőről. Azonnal hívjunk orvost.
- **4.2 A legfontosabb - akut és késleltetett - tünetek és hatások**  
További lényeges információk nem állnak rendelkezésre.
- **4.3 A sükségés azonnali orvosi ellátás és különleges ellátás jelzése**  
További lényeges információk nem állnak rendelkezésre.

### 5. SZAKASZ: Tűzoltási intézkedések

- **5.1 Oltóanyag**
- **Megfelelő tűzoltószerek:**  
CO<sub>2</sub>, poroltó vagy vízszugár. A nagyobb tüzeket vízszugárral vagy alkoholnak ellenálló habbal oltjuk.
- **5.2 Az anyaghoz vagy a keverékhez társuló különleges veszélyek**  
További lényeges információk nem állnak rendelkezésre.
- **5.3 Tűzoltóknak szóló javaslat**
- **Különleges védőfelszerelés:** Használjunk védőálcot.

### 6. SZAKASZ: Intézkedések véletlenszerű környezetbe jutás esetén

- **6.1 Személyi óvintézkedések, egyéni védőeszközök és vészhelyzeti eljárások**  
Viseljünk védőfelszerelést. Távolítsuk el a védtelen személyeket.
- **6.2 Környezetvédelmi óvintézkedések:**  
A környezeti vizekbe vagy csatornába való behatolás esetén értesítsük az illetékes hatóságokat.  
Hígítsuk fel sok vízzel.  
Ne hagyjuk bekerülni a csatornába/felszíni vizekbe/talajvízbe.
- **6.3 A területi elhatárolás és a szennyezésmentesítés módszerei és anyagai:**  
Folyadékot megkötő anyaggal (homok, kovaföld, savmegkötő anyag, univerzális megkötő anyag) itassuk fel.  
Használjunk semlegesítő szereket.  
A szennyezett anyagot, mint hulladékot a 13. pont szerint távolítsuk el.  
Gondoskodjunk megfelelő szellőztetésről.
- **6.4 Hivatkozás más szakaszokra**  
A biztonságos kezeléshez lásd a 7. Fejezetben közölt információkat.  
A személyes védőfelszereléshez lásd a 8. Fejezetben közölt információkat.  
Az eltávolítással kapcsolatban lásd a 13. Fejezetben közölt információkat.

### 7. SZAKASZ: Kezelés és tárolás

- **7.1 A biztonságos kezelésre irányuló óvintézkedések**  
Gondoskodjunk a munkahelyen megfelelő szellőzésről és elszívásról.  
Kerüljük az aerosol képződést.
- **Tűz- és robbanásvédelmi információk:** Hő ellen védjük.
- **7.2 A biztonságos tárolás feltételei, az esetleges összeférhetlenséggel együtt**
- **Raktározás:**
- **A raktárhelyiségekkel és tartályokkal szemben támasztott követelmény:** Nincsenek különleges követelmények.
- **Együttes tárolással kapcsolatos információk:** Nem szükséges.

(folytatás a 4. oldalon)



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- **További adatok a raktározási körülményekkel kapcsolatban:**  
Az edényeket jól lezárt állapotban tartjuk.  
Hőtől és közvetlen napsugárzástól védjük.
- **7.3 Meghatározott végfelhasználás (végfelhasználások)** További lényeges információk nem állnak rendelkezésre.

## 8. SZAKASZ: Az expozíció elleni védekezés/egyéni védelem

- **Pótlólagos információ a műszaki berendezés kialakításához:** További adatok nincsenek; lásd 7. pontot.
- **8.1 Ellenőrzési paraméterek**
- **Alkotórészek munkahelyre vonatkoztatott, felügyelet tárgyát képező határértékekkel:**  
A termék nem tartalmaz olyan releváns anyagmennyiségeket, amelyek munkahelyre vonatkoztatott, ellenőrizendő határértékekkel rendelkeznek.
- **Pótlólagos információk:** A létrehozásnál érvényes listák képezték a kiindulópontot.
- **8.2 Az expozíció elleni védekezés**
- **Személyes védőfelszerelés:**
- **Általános védekezési és higiéniai intézkedések:**  
Tartsuk távol élelmiszerektől, italoktól és takarmányoktól.  
A szennyezett folyadékkal átitatott ruházatot azonnal vegyük le.  
Munkahelyi szünetek előtt és a munka befejezésekor mossunk kezet.  
Kerüljük a szembe való bejutást.  
Kerüljük a szemmel és bőrrel való érintkezést.
- **Légzésvédelem:**  
Rövid ideig tartó vagy csekély terhelés esetén légzési szűrőkészüléket alkalmazunk, intenzív vagy hosszú ideig tartó expozíció esetén környezeti levegőtől független védőálarc szükséges.
- **Kézvédelem:**



Védőkesztyű.

A kesztyű anyagának át nem eresztő képességűnek és a termékkel/anyaggal/készítménnyel szemben ellenállónak kell lennie.

Megfelelő vizsgálatok hiányában a termékre/készítményre/vegyszerkeverékre nem lehet alkalmas kesztyűanyagot javasolni.

A kesztyű anyagának kiválasztása az áttörési idő, permeációs sebesség és a bomlás figyelembevételével történt.

- **Kesztyűanyag**

A vízben oldhatatlan anyag/termék/készítmény használata előtt vízdékony bőrvédő szert (zsírmentes réteggépzőt vagy olaj/víz-emulziót) használjunk. Mivel a termék több anyagból összeállított készítményt jelent, a kesztyű anyagának tartóssága előre nem számítható ki, ezért a használat előtt ezt ellenőrizni kell.

- **Áthatolási idő a kesztyűanyagon**

A pontos behatolási időt a kesztyű gyártójától kell megkérdezni és azt be is kell tartani.

- **Szemvédelem:**



Jól záró védőszemüveg.

HU

(folytatás az 5. oldalon)

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(folytatás a 4. oldalról)

### 9. SZAKASZ: Fizikai és kémiai tulajdonságok

· **9.1 Az alapvető fizikai és kémiai tulajdonságokra vonatkozó információk**

· **Általános adatok**

· **Külső jellemzők:**

Forma:

Folyékony

Szín:

a termék megjelölés szerint.

· **Szag:**

gyümölcsszerű

· **Szagküszöbérték:**

Nincs meghatározva.

· **pH-érték:**

Nincs meghatározva.

· **Állapotváltozás**

Olvadáspont/olvadási tartomány:

nem meghatározható

Forráspont/forrási tartomány:

100 °C

· **Lobbanáspont:**

71 °C

· **Gyúlékonyság (szilárd, gázhalmozott állapotú):** Nem alkalmazható

· **Gyulladás hőmérséklet:**

Bomlási hőmérséklet:

Nincs meghatározva.

· **Öngyulladás:**

Az anyag magától nem gyullad.

· **Robbanásveszély:**

Nincs meghatározva.

· **Robbanási határok:**

Alsó:

Nincs meghatározva.

Felső:

Nincs meghatározva.

· **Gőznyomás 20 °C-nál:**

23 hPa

· **Sűrűség 20 °C-nál:**

1,129 g/cm<sup>3</sup>

· **Relatív sűrűség**

Nincs meghatározva.

· **Gőzsűrűség**

Nincs meghatározva.

· **Párolgási sebesség**

Nincs meghatározva.

· **Oldhatóság/keverhetőség az alábbiakkal:**

Víz:

Teljes mértékben keverhető.

· **Eloszlási együttható (n-Oktanól/víz):**

Nincs meghatározva.

· **Viszkozitás:**

dinamikai:

Nincs meghatározva.

kinematikai:

Nincs meghatározva.

· **Oldószer tartalom:**

Szerves oldószerek:

0,3 %

Víz:

74,8 %

VOC (EC)

0,25 %

· **9.2 Egyéb információk**

További lényeges információk nem állnak rendelkezésre.

### 10. SZAKASZ: Stabilitás és reakciókészség

· **10.1 Reakciókészség** További lényeges információk nem állnak rendelkezésre.

· **10.2 Kémiai stabilitás**

· **Termikus bomlás/kerülő feltételek:** Rendeltetésszerű használat esetén nincs bomlás.

· **10.3 A veszélyes reakciók lehetősége** Veszélyes reakciók nem ismeretesek.

(folytatás a 6. oldalon)

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- **10.4 Kerülendő körülmények** További lényeges információk nem állnak rendelkezésre.
- **10.5 Nem összeférhető anyagok:** További lényeges információk nem állnak rendelkezésre.
- **10.6 Veszélyes bomlástermékek:** Veszélyes bomlástermékek nem ismeretesek.

### 11. SZAKASZ: Toxikológiai adatok

- **11.1 A toxikológiai hatásokra vonatkozó információ**
- **Akut toxicitás** A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.

· **Besorolás releváns LD/LC50-értékek:**

#### 111-30-8 Glutaral

Szájon át	LD50	134 mg/kg (rat)
Bőrön át	LD50	2560 mg/kg (rabbit)

- **Primer ingerhatás:**
- **Bőrkorrózió/bőrirritáció**  
Súlyos égési sérülést és szemkárosodást okoz.
- **Súlyos szemkárosodás/szemirritáció**  
Súlyos szemkárosodást okoz.
- **Légzőszervi vagy bőrszenzibilizáció**  
Belélegezve allergiás és asztmás tüneteket, és nehéz légzést okozhat.  
Allergiás bőrreakciót válthat ki.
- **CMR hatások (rákkeltő, mutagén és teratogén hatás)**
- **Csírasejt-mutagenitás** A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.
- **Rákkeltő hatás** A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.
- **Reprodukciós toxicitás** A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.
- **Egyetlen expozíció utáni célszervi toxicitás (STOT)**  
Légúti irritációt okozhat.
- **Ismétlődő expozíció utáni célszervi toxicitás (STOT)**  
A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.
- **Aspirációs veszély** A rendelkezésre álló adatok alapján az osztályozás kritériumai nem teljesülnek.

### 12. SZAKASZ: Ökológiai adatok

- **12.1 Toxicitás**
- **Akvatikus toxicitás:** További lényeges információk nem állnak rendelkezésre.
- **12.2 Perzisztencia és lebonthatóság** További lényeges információk nem állnak rendelkezésre.
- **12.3 Bioakkumulációs képesség** További lényeges információk nem állnak rendelkezésre.
- **12.4 A talajban való mobilitás** További lényeges információk nem állnak rendelkezésre.
- **Ökotoxikus hatások:**
- **Megjegyzés:** Halakra fokozottan mérgező hatása.
- **További ökológiai információk:**
- **Általános információk:**  
3 (Saját besorolás) Vízveszélyeztetési osztály: a vizeket erősen veszélyezteti.  
Ne engedjük bele a talajvízbe, a környezeti vizekbe, vagy a csatornarendszerbe, még kis mennyiségben sem.  
Higítatlan, illetve semlegesítetlen állapotban nem engedhető bele a szennyvízbe, illetve a befogadóba.  
A legcsekélyebb mennyiségek talajbakerülése is veszélyezteti az ivóvizet.  
A vizekben mérgező hatást fejt ki a halakra és planktonokra is.  
vízi élőlényekre erősen mérgező
- **12.5 A PBT- és a vPvB-értékelés eredményei**
- **PBT:** Nem alkalmazható
- **vPvB:** Nem alkalmazható

(folytatás a 7. oldalon)

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(folytatás a 6. oldalról)

· **12.6 Egyéb káros hatások** További lényeges információk nem állnak rendelkezésre.

### 13. SZAKASZ: Ártalmatlanítási szempontok

- **13.1 Hulladékkezelési módszerek**
- **Ajánlás:** Nem keverhető hozzá a háztartási hulladékhoz. Ne engedjük bele a csatornahálózatba.
- **Tisztítatlan csomagolások:**
- **Ajánlás:** A kezelés módját a hatósági előírások szabják meg.
- **Ajánlott tisztítószer:** Víz, adott esetben tisztítószerekkel együtt.

### 14. SZAKASZ: Szállításra vonatkozó információk

- **14.1 UN-szám**
- **ADR, IMDG, IATA** UN3265
- **14.2 Az ENSZ szerinti megfelelő szállítási megnevezés**
- **ADR** 3265 MARÓ, FOLYÉKONY, SAVAS SZERVES ANYAG, M.N.N. (Glutaral), KÖRNYEZETRE VESZÉLYES
- **IMDG** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT
- **IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
- **14.3 Szállítási veszélyességi osztály(ok)**
- **ADR, IMDG**
- 
- **osztály** 8 Maró anyagok
- **Bárcák** 8
- **IATA**
- 
- **Class** 8 Maró anyagok
- **Label** 8
- **14.4 Csomagolási csoport**
- **ADR, IMDG, IATA** III
- **14.5 Környezeti veszélyek:** A termék tartalmaz környezetre veszélyes anyagok:
- **Marine pollutant:** Jelkép (hal és fa)
- **Különleges jelölésére (ADR):** Jelkép (hal és fa)
- **14.6 A felhasználót érintő különleges óvintézkedések** Figyelem: Maró anyagok
- **Kemler-szám:** 88
- **EMS-szám:** F-A,S-B
- **Segregation groups** Acids

(folytatás a 8. oldalon)

**Biztonsági adatlap**  
1907/2006/EK, 31. cikk szerint

A nyomtatás kelte 10.08.2016

Felülvizsgálat 10.08.2016

**Kereskedelmi megnevezés: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(folytatás a 7. oldalról)

· <i>Stowage Category</i>	A
· <i>Stowage Code</i>	SW2 Clear of living quarters.
· <b>14.7 A MARPOL-egyezmény II. melléklete és az IBC szabályzat szerinti ömlesztett szállítás</b>	Nem alkalmazható
· <b>Szállítási/egyéb adatok:</b>	
· <b>ADR</b>	
· <b>Korlátozott mennyiség (LQ)</b>	5L
· <b>Engedményes mennyiség (EQ)</b>	Kód: E1 Legnagyobb nettó mennyiség belső csomagolásonként: 30 ml Legnagyobb nettó mennyiség külső csomagolásonként: 1000 ml
· <b>Szállítási kategória</b>	3
· <b>Alagútkorlátozási kód:</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 MARÓ, FOLYÉKONY, SAVAS SZERVES ANYAG, M.N.N. (GLUTARAL), 8, III, KÖRNYEZETRE VESZÉLYES

### 15. SZAKASZ: Szabályozással kapcsolatos információk

- **15.1 Az adott anyaggal vagy keverékkel kapcsolatos biztonsági, egészségügyi és környezetvédelmi előírások/jogszabályok**
- **Irányelv 2012/18/EU**
- **Megnevezett veszélyes anyagok - I. MELLÉKLET Metanol**
- **Seveso-kategóriát E1 A vízi környezetre veszélyes**
- **Küszöbértékek (tonna): Alsó küszöbérték 100 t**
- **Küszöbértékek (tonna): Felső küszöbérték 200 t**
- **Tanács 1907/2006/EK rendelete XVII. MELLÉKLET A korlátozás feltételei: 3**
- **15.2 Kémiai biztonsági értékelés: A kémiai biztonsági értékelést nem végezték.**

### 16. SZAKASZ: Egyéb információk

Az adatok jelenlegi ismeretinkre támaszkodnak, azonban nem jelentik a termék tulajdonságainak garanciáját és nem alapoznak meg szerződéses jogviszonyt.

- **Lényeges mondatok**
- H314 Súlyos égési sérülést és szemkárosodást okoz.
- H317 Allergiás bőrreakciót válthat ki.
- H332 Belélegezve ártalmatlan.
- H334 Belélegezve allergiás és asztmás tüneteket, és nehéz légzést okozhat.
- H400 Nagyon mérgező a vízi élővilágra.
- **Rövidítések és mozaikszavak:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods

(folytatás a 9. oldalon)

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(folytatás a 8. oldalról)

*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*

*Acute Tox. 4: Akut toxicitás – 4. kategória*

*Skin Corr. 1B: Bőrmarás/bőrirritáció – 1B. kategória*

*Eye Dam. 1: Súlyos szemkárosodás/szemirritáció – 1. kategória*

*Resp. Sens. 1: Légzőszervi szenzibilizáció – 1. kategória*

*Skin Sens. 1: Bőrszenzibilizáció – 1. kategória*

*STOT SE 3: Céliszervi toxicitás (egyszeri expozíció) – 3. kategória*

*Aquatic Acute 1: A vízi környezetre veszélyes - akut vízi toxicitási veszély – 1. kategória*

HU

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

Stampato il: 10.08.2016

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

· **Articolo numero:** 16214, 16216, 16216-10

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

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

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

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkcck@aol.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

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

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

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

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



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

Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.



GHS07

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

STOT SE 3 H335 Può irritare le vie respiratorie.

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**Denominazione commerciale: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Segue da pagina 1)

· **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   GHS07   GHS08   GHS09

· **Avvertenza Pericolo**

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

glutarale

· **Indicazioni di pericolo**

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.

· **Consigli di prudenza**

P260 Non respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.

P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.

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.

P310

Contattare immediatamente un CENTRO ANTIVELENI/un medico.

P405

Conservare sotto chiave.

P501

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

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

**SEZIONE 3: Composizione/informazioni sugli ingredienti**

· **3.2 Caratteristiche chimiche: Miscela**

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

· **Sostanze pericolose:**

CAS: 111-30-8	glutarale	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· **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.

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- **Inalazione:**  
Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.  
Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
- **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- **Contatto con gli occhi:**  
Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte e consultare il medico.
- **Ingestione:**  
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:**  
CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** 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.  
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.  
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Proteggere dal calore.
- **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.

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- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**  
Mantenere i recipienti ermeticamente chiusi.  
Proteggere dal calore e dai raggi diretti del sole.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

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

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

#### · 8.1 Parametri di controllo

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

#### 111-30-8 glutarale

TWA	Limite Ceiling: 0,2 mg/m <sup>3</sup> , 0,05 ppm sen, A4
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- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

#### · 8.2 Controlli dell'esposizione

##### · Mezzi protettivi individuali:

##### · Norme generali protettive e di igiene del lavoro:

- Tenere lontano da cibo, bevande e foraggi.
- Togliere immediatamente gli abiti contaminati.
- Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- Evitare il contatto con gli occhi.
- Evitare il contatto con gli occhi e la pelle.

##### · Maschera protettiva:

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

##### · Guanti protettivi:



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

##### · Materiale dei guanti

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego

##### · Tempo di permeazione del materiale dei guanti

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

##### · Occhiali protettivi:



Occhiali protettivi a tenuta

IT

(continua a pagina 5)

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### SEZIONE 9: Proprietà fisiche e chimiche

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

· **Indicazioni generali**

· **Aspetto:**

**Forma:**

Liquido

**Colore:**

In conformità con la denominazione del prodotto

· **Odore:**

Simile a frutto

· **Soglia olfattiva:**

Non definito.

· **valori di pH:**

Non definito.

· **Cambiamento di stato**

**Temperatura di fusione/ambito di fusione:**

Non definito.

**Temperatura di ebollizione/ambito di ebollizione:** 100 °C

· **Punto di infiammabilità:**

71 °C

· **Infiammabilità (solido, gassoso):**

Non applicabile.

· **Temperatura di accensione:**

**Temperatura di decomposizione:**

Non definito.

· **Autoaccensione:**

Prodotto non autoinfiammabile.

· **Pericolo di esplosione:**

Non definito.

· **Limiti di infiammabilità:**

**Inferiore:**

Non definito.

**Superiore:**

Non definito.

· **Tensione di vapore a 20 °C:**

23 hPa

· **Densità a 20 °C:**

1,129 g/cm<sup>3</sup>

· **Densità relativa**

Non definito.

· **Densità del vapore**

Non definito.

· **Velocità di evaporazione**

Non definito.

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

Completamente miscibile.

· **Coefficiente di distribuzione (n-Octanol/acqua):**

Non definito.

· **Viscosità:**

**Dinamica:**

Non definito.

**Cinematica:**

Non definito.

· **Tenore del solvente:**

**Solventi organici:**

0,3 %

**Acqua:**

74,8 %

**VOC (CE)**

0,25 %

· **9.2 Altre informazioni**

Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

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

· **10.2 Stabilità chimica**

· **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.

· **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.

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- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

### SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

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

#### 111-30-8 glutarale

Orale	LD50	134 mg/kg (rat)
Cutaneo	LD50	2560 mg/kg (rabbit)

- **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.
- **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.
- **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
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

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· **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

### SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

· <b>14.1 Numero ONU</b> · <b>ADR, IMDG, IATA</b>	UN3265
· <b>14.2 Nome di spedizione dell'ONU</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	3265 LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S. (glutarale), PERICOLOSO PER L'AMBIENTE CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
· <b>14.3 Classi di pericolo connesso al trasporto</b> · <b>ADR, IMDG</b>	
 	
· <b>Classe</b> · <b>Etichetta</b>	8 Materie corrosive 8
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	8 Materie corrosive 8
· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Pericoli per l'ambiente:</b>  · <b>Marine pollutant:</b> · <b>Marcatura speciali (ADR):</b>	Il prodotto contiene materie pericolose per l'ambiente: glutarale Simbolo (pesce e albero) Simbolo (pesce e albero)
· <b>14.6 Precauzioni speciali per gli utilizzatori</b> · <b>Numero Kemler:</b> · <b>Numero EMS:</b> · <b>Segregation groups</b>	Attenzione: Materie corrosive 88 F-A,S-B Acids

(continua a pagina 8)

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

Stampato il: 10.08.2016

Revisione: 10.08.2016

**Denominazione commerciale: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Segue da pagina 7)

· <b>Stowage Category</b>	A
· <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>	5L
· <b>Quantità esenti (EQ)</b>	Codice: E1 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 1000 ml
· <b>Categoria di trasporto</b>	3
· <b>Codice di restrizione in galleria</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S. (GLUTARALE), 8, III, 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 metanolo**
- **Categoria Seveso E1 Pericoloso per l'ambiente acquatico**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 100 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII Restrizioni: 3**

· **Disposizioni nazionali:**

· **Istruzione tecnica aria:**

Classe	quota in %
NC	0,3

- **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.

· **Frase rilevanti**

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H332 Nocivo se inalato.

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

H400 Molto tossico per gli organismi acquatici.

(continua a pagina 9)

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

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(Segue da pagina 8)

**· Abbreviazioni e acronimi:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

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

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Tossicità acuta – Categoria 4*

*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*

*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*

IT

# 물질안전보건자료 GHS에 따라

기압점: 2016.08.10

개정: 2016.08.10

## 1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **상품번호:** 16214, 16216, 16216-10
- **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도** 추가적인 정보가 존재하지 않습니다.
- **제품의 권고 용도와 사용상의 제한:** 실험실화학품
- **안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보**
- **제조사/수입자/유통업자 정보:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Samchang Commercial Co., Ltd.**  
 Yeo Eui Do  
 PO Box 1110  
 Seoul, Korea  
 Tel: 82 2 703 3040  
 Fax: 82 2 717 3298
- **추가적인 정보 획득 가능:** Product safety department
- **비상연락 전화번호:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

## 2 유해성·위험성

· **순물질 또는 혼합물의 분류**



건강에 위험

호흡기 과민성 - 구분 1                      H334 흡입시 알레르기성 반응, 천식 또는 호흡 곤란을 일으킬 수 있음



부식

피부 부식성/피부 자극성 - 구분 1 H314 피부에 심한 화상과 눈 손상을 일으킴  
 심한 눈 손상성/눈 자극성 - 구분 1 H318 눈에 심한 손상을 일으킴



환경

수생환경 유해성 - 급성 1                      H400 수생생물에 매우 유독함



급성 독성 - 경구 - 구분 4                      H302 삼키면 유해함  
 피부 과민성 - 구분 1                          H317 알레르기성 피부 반응을 일으킬 수 있음

(2 쪽에 계속)



# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

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**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(1 쪽부터계속)

- 라벨표기 요소
- GHS 라벨 요소
- 그림문자



GHS05   GHS07   GHS08   GHS09

- 신호어 위험
- **상표상에명확히위험성이표시된성분:**

Glutaraldehyde

- **유해.위험 분구**

삼키면 유해함  
 피부에 심한 화상과 눈 손상을 일으킴  
 흡입시 알레르기성 반응, 천식 또는 호흡 곤란을 일으킬 수 있음  
 알레르기성 피부 반응을 일으킬 수 있음  
 수생생물에 매우 유독함

- **예방조치 문구**

열·스파크·화염·고열로부터 멀리하시오 - 금연  
 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으시오. 피부를 물로 씻으시오/샤워하시오.  
 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.  
 즉시 독성물질센터/병원 연락 필요.  
 잠금장치가 있는 저장장소에 저장하시오.  
 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

- **기타 유해성**

- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

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

- **위험 요소:**

111-30-8	Glutaraldehyde ⚠ 호흡기 과민성 - 구분 1, H334; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 수생환경 유해성 - 급성 1, H400; ⚠ 급성 독성 - 흡입 - 구분 4, H332; 피부 과민성 - 구분 1, H317	10-25%
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### 4 응급조치 요령

- **응급조치요령 내용**

- **일반적 정보:**

이제품에 의해 오염된 의상은 즉시 제거한다.  
 중독 증상은 몇 시간 이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.

- **흡입했을 때:**

신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.  
 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

(3 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

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**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(2 쪽부터계속)

- **피부에 접촉했을 때:** 즉시물과비누로씻고잘헹군다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇분동안 씻어내고나서, 의사와 상담한 다
- **먹었을 때:**  
즉 시 의사의 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:**  
이산화탄소, 진화용석회가루 또는 물방사를 사용하고, 더 큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 호흡보호장비설치.

### 6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 안전장비 착용하고, 무방비의 사람은 격리시킨다.
- **환경 관련 예방조치:**  
하천이나하수로유입되었을경우해당관청에보고한다.  
많은 물로 희석 시킨다.  
하수도망/해수면위의물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:**  
액체가 혼합된 물질(모래, 규조토, 산성결합물, 일반결합물, 톱밥)에 흡입되도록 한다.  
중성제를사용한다.  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.
- **타 섹션 참조**  
안전관리에 대한 정보는 제7장을 참고하십시오.  
개인보호장비에 대한 정보는 제8장을 참고하십시오.  
쓰레기처리에 대한 정보는 제13장을 참고하십시오.

### 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.  
연무질이형성되는것을피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 열로부터보호한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특 별 한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요없음
- **보 관 조 건 에 관 한 추가적인 정보:**  
용기를새지않게밀폐한채보관한다.  
열이나직사광선으로부터보호한다.

(4 쪽에계속)

# 물질안전보건자료 GHS에 따라

기압점: 2016.08.10

개정: 2016.08.10

**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(3 쪽부터계속)

· **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

## 8 노출방지 및 개인보호구

· **첨단시설 디자인에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시 오.

· **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

### 111-30-8 Glutaraldehyde

TLV (KR)	최고노출기준: 0.2 mg/m <sup>3</sup> , 0.05 ppm
REL (US)	최고노출기준: 0.8 mg/m <sup>3</sup> , 0.2 ppm See Pocket Guide App. C
TLV (US)	최고노출기준: 0.2 mg/m <sup>3</sup> , 0.05 ppm DSEN;RSEN ;activated or inactivated

· **추 가 정보:** 제 조 할 당시에 유 효 한 목 록을 기 초로 사용했다.

· **노출 통제**

· **개인 보호구**

· **일반적보호조치및위생조치:**

· 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.

· 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.

· 휴식 전이나 작업이 끝날때마다 손을 씻는다.

· 눈과의 접촉을 피한다.

· 눈과 피부와의 접촉은 피한다.

· **호흡기 보호:**

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

· **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.

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

· 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑의재료**

· 적합한장갑의선택은재질차이뿐만아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

· **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

· **눈 보호:**



확조이는보안경

KR

(5 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

개정: 2016.08.10

**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(4 쪽부터계속)

### 9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보	
· 일반정보	
· 외형	
· 물리적 상태:	액체의
· 색:	제 품 표 시 에 따름
· 냄새:	과일종류의
· 후각역치	알맞지않다.
· pH:	알맞지않다.
· 상태변화	
· 녹는점/어는점:	맞지않는
· 초기 끓는점과 끓는점 범위:	100 °C
· 인화점:	71 °C
· 인화성(고체, 기체):	해당사항 없음.
· 점화온도:	
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	알맞지않다.
· 인화 또는 폭발 범위의 상한/하한	
· 아래로:	알맞지않다.
· 위로:	알맞지않다.
· 증기압 의경우 20 °C:	23 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:	알맞지않다.
· 동점성:	알맞지않다.
· 용매내용물	
· 유기용매:	0.3 %
· 물:	74.8 %
· VOC (EU)	0.25 %
· 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.

(6 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

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**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(5 쪽부터계속)

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

### 11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- **급성 독성:**

· **LD/LC50-수치에 따른 분류:**

**111-30-8 Glutaraldehyde**

구강의	LD50	134 mg/kg (rat)
피부의	LD50	2560 mg/kg (rabbit)

- **일차적 자극 효과:**
- **피부 부식성 또는 자극성:** 피부와점막에강한부식작용.
- **심한 눈 손상 또는 자극성:**  
강한부식작용  
심각한안구상처의위험이있는강한자극
- **감각화:**  
호흡을통한감각화가가능성이있다.  
피부접촉을통하여감각화가가능성이있다.
- **추 가 적 인 독성 에 관 한 정 보:**  
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.  
건강에해로운  
부식작용의  
자극적인  
삼킬경우식도나위등의내장기관벽에상처를주는위험과마찬가지로입주변이나구강에강한부식작용을한다

### 12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환 경 시 스템 에 서 의 행 동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **생태독성:**
- **의견:** 어류 에 매우 독성임
- **추가적인 생태학 정보:**
- **일반 특징:**  
수질오염등급 3 (자체등급분류): 심하게수질오염이된  
지하수나, 하천으로또는하수도망에도달하지않게한다. 역시극소수의양이라도안된다.  
회석시키지않은채또는중화시키지않은채하수도나배수로에도달하지않게해야한다.  
지하수로아주미세한양이유입되었을경우엔이미식수오염상태이다  
하천에서는역시물고기나플랑크톤게는독성이있다.  
물속의유기체에아주독이되는것
- **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.

(7 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

개정: 2016.08.10

**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**



· 기타 부작용 추가적인 정보가 존재하지 않습니다.

(6 쪽부터계속)

### 13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.
- 추천 세정제: 경우에따라서세제가첨가된물

### 14 운송에 필요한 정보

<ul style="list-style-type: none"> <li>· 유엔 번호</li> <li>· ADR, IMDG, IATA</li> </ul>	UN3265
<ul style="list-style-type: none"> <li>· UN 적정 선적명</li> <li>· ADR</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p>3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS</p> <p>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT</p> <p>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)</p>
<ul style="list-style-type: none"> <li>· 교통 위험 클래스</li> <li>· ADR, IMDG</li> </ul> <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> <li>· 등급</li> <li>· 위험물 라벨</li> </ul> <p>8 부식작용하는물질 8</p>
<ul style="list-style-type: none"> <li>· IATA</li> </ul> <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul> <p>8 부식작용하는물질 8</p>
<ul style="list-style-type: none"> <li>· 용기등급</li> <li>· ADR, IMDG, IATA</li> </ul>	III
<ul style="list-style-type: none"> <li>· 환경적 유해물질:</li> <li>· 해양오염물질:</li> <li>· 특수 마킹 (ADR):</li> </ul>	<p>이물질은환경오염물질을함유하고있다: Glutaraldehyde</p> <p>심벌 (물고기와 나무)</p> <p>심벌 (물고기와 나무)</p>
<ul style="list-style-type: none"> <li>· 이용자 특별 예방조치</li> <li>· 위험 코드:</li> <li>· EMS-번호:</li> <li>· Segregation groups</li> </ul>	<p>경고: 부식작용하는물질</p> <p>88</p> <p>F-A,S-B</p> <p>Acids</p>

(8 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

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(7 쪽부터계속)

· Stowage Category · Stowage Code	A SW2 Clear of living quarters.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· 운송/추가 정보:	
· ADR · 한정 수량 (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· 운송 구분 · 터널 제한 코드	3 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "모범 규제":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8, III, ENVIRONMENTALLY HAZARDOUS

### 15 법적 규제현황

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory		
111-30-8	Glutaraldehyde	KE-27969
67-56-1	Methyl Alcohol	KE-23193
7732-18-5	water, distilled, conductivity or of similar purity	KE-35400

· 화학물질관리법

· 사고대비물질		
67-56-1	Methyl Alcohol	

· 금지물질

어떠한내용물도목록화되어있지않다
------------------

· 제한물질

어떠한내용물도목록화되어있지않다
------------------

· 유독물질

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

· 허가물질

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

· GHS 라벨 요소

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

(9 쪽에계속)



# 물질안전보건자료

## GHS에 따라

기압점: 2016.08.10

개정: 2016.08.10

**제품명: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(8 쪽부터계속)

**· 그림문자**



GHS05    GHS07    GHS08    GHS09

**· 신호어 위험**

**· 상표상에명확히위험성이표시된성분:**

Glutaraldehyde

**· 유해.위험 문구**

삼키면 유해함

피부에 심한 화상과 눈 손상을 일으킴

흡입시 알레르기성 반응, 천식 또는 호흡 곤란을 일으킬 수 있음

알레르기성 피부 반응을 일으킬 수 있음

수생생물에 매우 유독함

**· 예방조치 문구**

열·스파크·화염·고열로부터 멀리하십시오 - 금연

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으시오. 피부를 물로 씻으시오/샤워하십시오.

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으시오.

즉시 독성물질센터/병원 연락 필요.

잠금장치가 있는 저장장소에 저장하십시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

**· 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

· **최초 작성일자:** 2016.08.10

· **개정 횟수 및 최종 개정일자:** 1 / 2016.08.10

**· 약어와 두문자어:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

# Risalah Data Keselamatan Bahan

## Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

### 1 Pengenalpastian bahan/sediaan dan syarikat

- **Pengenal pasti produk**
- **Nama dagang:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Nombor artikel:** 16214, 16216, 16216-10
- **Kegunaan berkaitan yang dikenal pasti bagi bahan atau campuran dan penggunaan**  
Tiada maklumat lanjut yang diperolehi.
- **Penggunaan bahan/sediaan** Bahan kimia makmal
- **Perincian pembekal risalah data keselamatan**
- **Pengilang/Pembekal:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Maklumat lanjut dapat diperolehi daripada:** Product safety department
- **Nombor telefon kecemasan:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Pengenalpastian bahaya

- **Pengelasan bahan atau campuran**



Bahaya kesihatan

Pem. Naf. 1 H334 Boleh menyebabkan gejala alahan atau asma atau kesukaran bernafas jika tersedut.



Kakisan

Kks. Kulit 1B H314 Menyebabkan lecuran kulit dan kerosakan mata yang teruk.

Kros. Mata 1 H318 Menyebabkan kerosakan mata yang serius.



Alam sekitar

Akuatik Akut 1 H400 Sangat toksik kepada hidupan akuatik.



Toks. Akut 4 H302 Memudatkan jika tertelan.

Pem. Kulit 1 H317 Boleh menyebabkan tindak balas alahan kulit.

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

(Bersambung ke halaman 2)

# Risalah Data Keselamatan Bahan

## Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 1)

· **Piktogram hazard**



GHS05   GHS07   GHS08   GHS09

· **Perkataan isyarat Bahaya**

· **Komponen pelabelan yang menentukan bahaya:**

1,5-pentanedial

· **Pernyataan hazard**

Memudaratkan jika tertelan.

Menyebabkan lecuran kulit dan kerosakan mata yang teruk.

Boleh menyebabkan gejala alahan atau asma atau kesukaran bernafas jika tersedut.

Boleh menyebabkan tindak balas alahan kulit.

Sangat toksik kepada hidupan akuatik.

· **Pernyataan langkah perlindungan**

Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas - Dilarang merokok.

**JIKA TERKENA KULIT (atau rambut):** Tanggalkan semua pakaian yang tercemar dengan segera. Basuh kulit dengan air/pancuran.

**JIKA TERKENA MATA:** Bilas berhati-hati dengan air selama beberapa minit. Tanggalkan kanta lekap, jika ada dan dapat dilakukan dengan mudah. Teruskan membilas.

Segera hubungi PUSAT RACUN/doktor.

Simpan di tempat berkunci.

Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.

· **Bahaya lain**

· **Keputusan penilaian PBT dan vPvB**

· **PBT:** Tidak berkenaan

· **vPvB:** Tidak berkenaan

### 3 Komposisi/maklumat ramuan

· **Ciri kimia: Campuran**

· **Keterangan:** Campuran bahan disenaraikan di bawah bersama dengan bahan tambah tidak berbahaya.

· **Komponen berbahaya :**

111-30-8	1,5-pentanedial ⚠ Pem. Naf. 1, H334; ⚠ Kks. Kulit 1B, H314; ⚠ Akuatik Akut 1, H400; ⚠ Toks. Akut 4, H332; Pem. Kulit 1, H317	10-25%
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### 4 Langkah pertolongan cemas

· **Keterangan langkah pertolongan cemas**

· **Maklumat am:**

Segera tanggalkan mana-mana pakaian yang terkena produk.

Gejala keracunan boleh berlaku selepas beberapa jam, maka rawatan perubatan hendaklah diberikan sekurang-kurangnya 48 jam selepas kemalangan.

· **Jika tersedut:**

Berikan udara bersih dan pastikan rawatan doktor diperoleh.

Jika mangsa tidak sedarkan diri, letakkan pesakit dengan stabil dalam kedudukan mengiring untuk diangkat.

· **Jika terkena kulit:** Segera basuh dengan air dan sabun serta bilas bersih-bersih.

(Bersambung ke halaman 3)

## Risalah Data Keselamatan Bahan Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 2)

- **Jika terkena mata:**  
Bilas mata sambil membukanya di bawah air yang mengalir selama beberapa minit. Kemudian hubungi doktor.
- **Jika tertelan:**  
Segera hubungi doctor.  
Minum air yang banyak dan berikan udara bersih. Segera hubungi doktor.
- **Maklumat untuk doktor:**
- **Gejala dan kesan paling penting, akut dan lewat** Tiadak maklumat lanjut yang diperoleh.
- **Arahan bagi apa-apa rawatan perubatan dan rawatan khas yang diperlukan**  
Tiadak maklumat lanjut yang diperoleh.

### 5 Langkah memadam kebakaran

- **Bahan pemadam api**
- **Agen pemadam yang sesuai:**  
CO<sub>2</sub>, serbuk atau semburan air. Padam kebakaran besar dengan semburan air atau busa rintangan alkohol.
- **Bahaya khusus yang timbul daripada bahan atau campuran** Tiadak maklumat lanjut yang diperoleh.
- **Panduan kepada pemadam kebakaran**
- **Kelengkapan perlindungan:** Peralatan perlindungan pernafasan mulut.

### 6 Langkah menangani pelepasan yang tidak disengajakan

- **Langkah perlindungan diri, kelengkapan pelindung dan prosedur kecemasan**  
Pakai kelengkapan perlindungan. Jauhkan mereka yang tidak dilindung dari kawasan tercemar.
- **Langkah perlindungan alam sekitar:**  
Hubungi pihak berkuasa berkaitan jika berlaku peresapan masuk ke dalam saluran air atau sistem pembetungan.  
Cairkan dengan air yang banyak.  
Jangan biarkannya memasuki pembentung/air permukaan atau tanah.
- **Kaedah dan bahan untuk pembendungan dan pembersihan:**  
Serap dengan bahan cecair pengikat (pasir, diatomit, pengikat asid, pengikat semesta, habuk papan)  
Gunakan agen peneutralan.  
Lupuskan bahan tercemar sebagai sisa mengikut perkara 13.  
Pastikan pengalihudaraan mencukupi.
- **Rujukan ke bahagian lain**  
Lihat Bahagian 7 untuk maklumat pengendalian yang selamat.  
Lihat Bahagian 8 untuk maklumat kelengkapan perlindungan diri.  
Lihat Bahagian 13 untuk maklumat pelupusan.

### 7 Pengendalian dan penyimpanan

- **Pengendalian:**
- **Langkah perlindungan untuk pengendalian selamat**  
Pastikan pengalihudaraan/ekzos yang mencukupi di tempat kerja.  
Elakkan pembentukan aerosol.
- **Maklumat kebakaran dan perlindungan daripada letupan:** Lindungi daripada haba.
- **Keadaan untuk penyimpanan selamat, termasuk apa-apa ketakserasian**
- **Penyimpanan:**
- **Keperluan yang mesti dipenuhi oleh bilik stor dan ruang simpanan.** Tiada keperluan khusus.
- **Maklumat penyimpanan di dalam satu tempat penyimpanan yang biasa:** Tidak diperlukan.
- **Maklumat lanjut tentang syarat penyimpanan:**  
Pastikan bekas sentiasa bertutup rapat.  
Lindungi daripada haba dan pancaran terus cahaya matahari.

(Bersambung ke halaman 4)

## Risalah Data Keselamatan Bahan Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 3)

· **Kegunaan akhir yang khusus** Tiada maklumat lanjut yang diperolehi.

### 8 Kawalan pendedahan/perlindungan diri

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

· **Parameter kawalan**

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

**111-30-8 1,5-pentanedial**

PEL had siling: 0,21 mg/m<sup>3</sup>, 0,05 ppm

· **Maklumat tambahan:** Senarai yang sah semasa pembuatan digunakan sebagai asas.

· **Kawalan pendedahan**

· **Kelengkapan perlindungan diri:**

· **Langkah perlindungan dan kebersihan am:**

Jauhkan daripada makanan, minuman dan makanan haiwan.

Segera tanggalkan semua pakaian yang tercemar dan kotor.

Basuh tangan sebelum berhenti rehat dan apabila kerja selesai.

Elakkan daripada terkena mata.

Elakkan daripada terkena mata dan kulit.

· **Perlindungan pernafasan:**

Jika berlaku pendedahan sekejap atau sedikit pencemaran, gunakan alat penapis pernafasan. Jika berlaku pendedahan yang intensif atau berpanjangan, gunakan alat pernafasan perlindungan serba lengkap.

· **Perlindungan tangan:**



Sarung tangan pelindung.

Bahan sarung tangan hendaklah telus dan kalis terhadap produk/bahan/sediaan.

Oleh sebab tiada ujian yang dijalankan, maka tiada syor bagi bahan sarung tangan yang boleh diberikan untuk produk/sediaan/campuran kimia.

Pemilihan bahan sarung tangan berdasarkan waktu penembusan, kadar pembauran dan degradasi.

· **Bahan sarung tangan**

Pemilihan sarung tangan yang sesuai bukan hanya bergantung pada bahannya, tetapi juga tanda kualiti lainnya serta perbezaannya daripada satu pengeluar dengan pengeluar yang lain. Memandangkan produk merupakan suatu sediaan daripada beberapa bahan, ketahanan bahan sarung tangan tidak boleh dipastikan terlebih dahulu, oleh itu sarung tangan hendaklah diperiksa sebelum digunakan.

· **Jangka masa penyerapan bahan sarung tangan**

Waktu kemunculan yang tepat hendaklah diperolehi pengeluar sarung tangan pelindung dan hendaklah dipatuhi.

· **Perlindungan mata:**



Gogal bertutup rapat

MY

(Bersambung ke halaman 5)

## Risalah Data Keselamatan Bahan Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

Nama dagang: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 4)

### 9 Ciri fizik dan kimia

<ul style="list-style-type: none"> <li>· Maklumat tentang ciri fizik dan kimia</li> <li>· Maklumat Am</li> <li>· Rupa: <ul style="list-style-type: none"> <li>Bentuk: Bendalir</li> <li>Warna: Mengikut spesifikasi produk</li> </ul> </li> <li>· Bau: Seperti buah</li> <li>· Had ambang bau: Tidak ditentukan.</li> </ul>	
· Nilai pH:	Tidak ditentukan.
· Perubahan pada keadaan	
Takat lebur/Julat lebur:	Tidak ditentukan.
Takat didih/Julat didih:	100 °C
· Takat kilat:	71 °C
· Kemudahbakaran (pepejal, gas)	Tidak berkenaan
· Suhu pencucuhan:	
Suhu penguraian:	Tidak ditentukan.
· Pencucuhan sendiri	Produk tidak tercucuh sendiri
· Bahaya letupan:	Tidak ditentukan.
· Had letupan :	
Bawah:	Tidak ditentukan.
Atas:	Tidak ditentukan.
· Tekanan wap pada 20 °C:	23 hPa
· Ketumpatan pada 20 °C:	1,129 g/cm <sup>3</sup>
· Ketumpatan relatif	Tidak ditentukan.
· Ketumpatan wap	Tidak ditentukan.
· Kadar penyejatan	Tidak ditentukan.
· Keterlarutan dalam / Keterlarutcampuran dengan	
Air:	Terlarut campur sepenuhnya.
· Pekali pengasingan (n-oktanol/air)	Tidak ditentukan.
· Kelikatan:	
Dinamik:	Tidak ditentukan.
Kinematik:	Tidak ditentukan.
· Kandungan pelarut:	
Pelarut organik:	0,3 %
Air:	74,8 %
· Maklumat lain	Tiada maklumat lanjut yang diperoleh.

### 10 Kestabilan dan kereaktifan

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

(Bersambung ke halaman 6)

# Risalah Data Keselamatan Bahan

## Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 5)

- **Bahan tidak serasi:** Tiada maklumat lanjut yang diperoleh.
- **Produk penguraian yang berbahaya:** Tiada produk penguraian berbahaya yang diketahui.

### 11 Maklumat toksikologi

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

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

**111-30-8 1,5-pentanedial**

Oral	LD50	134 mg/kg (rat)
Derma	LD50	2560 mg/kg (rabbit)

- **Kesan kerengsaan primer:**
- **pada kulit:** Kesan kaustik yang kuat pada kulit dan mukus membran.
- **pada mata**  
Kesan kaustik yang kuat.  
Perengsa yang kuat dengan bahaya kecederaan mata yang teruk.
- **Pemekaan:**  
Pemekaan mungkin berlaku melalui penyedutan.  
Pemekaan mungkin berlaku jika terkena kulit.
- **Maklumat tambahan toksikologi:**  
Produk menunjukkan bahaya berikut mengikut kaedah pengiraan Garis Panduan Pengelasan Am EU bagi Sediaan seperti yang dikeluarkan dalam versi terbaru:  
Memudaratkan  
Mengakis  
Perengsa  
Tertelan akan menyebabkan kesan kaustik yang kuat pada mulut dan tekak serta bahaya perliangan esofagus dan perut.

### 12 Maklumat ekologi

- **Ketoksikan**
- **Ketoksikan akuatik:** Tiada maklumat lanjut yang diperoleh.
- **Keterusan dan keterdegradasikan** Tiada maklumat lanjut yang diperoleh.
- **Kelakuan dalam sistem alam sekitar:**
- **Potensi bioakumulatif** Tiada maklumat lanjut yang diperoleh.
- **Mobiliiti di dalam tanah** Tiada maklumat lanjut yang diperoleh.
- **Kesan ekotoksik:**
- **Catatan:** Sangat toksik kepada ikan
- **Maklumat tambahan ekologi:**
- **Nota am:**  
Bahaya air kelas 3 (Peraturan Jerman) (Penilaian sendiri): amat berbahaya kepada air  
Jangan biarkan produk memasuki air tanah, saluran air atau sistem pembetulan, walaupun sedikit.  
Tidak boleh memasuki air pembetulan atau parit saluran tanpa dicairkan atau dineutralkan.  
Bahaya kepada air minuman walaupun dalam amat sedikit produk kebocoran yang memasuki tanah  
Juga beracun kepada ikan dan plankton dalam jasad air  
Sangat toksik kepada organisma akuatik
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan

(Bersambung ke halaman 7)



## Risalah Data Keselamatan Bahan Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**




(Sambungan halaman 6)

· **Kesan buruk yang lain** Tiada maklumat lanjut yang diperolehi.

### 13 Maklumat pelupusan

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

### 14 Maklumat pengangkutan

<ul style="list-style-type: none"> <li>· <b>Nombor UN</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3265
<ul style="list-style-type: none"> <li>· <b>Nama penghantaran UN yang betul</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5-Pentanadial), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
<ul style="list-style-type: none"> <li>· <b>pengangkutan kelas bahaya</b></li> <li>· <b>ADR, IMDG</b></li> </ul>	
 	
<ul style="list-style-type: none"> <li>· <b>Kelas</b></li> <li>· <b>Label</b></li> </ul>	8 Bahan mengakis. 8
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Bahan mengakis. 8
<ul style="list-style-type: none"> <li>· <b>Kumpulan pembungkusan</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>Hazard persekitaran:</b></li> <li>· <b>Bahan cemar marin:</b></li> <li>· <b>Pelabelan khas (ADR):</b></li> </ul>	Produk mengandungi bahan yang berbahaya kepada alam sekitar: 1,5-Pentanadial Tanda (ikan dan pokok) Tanda (ikan dan pokok)
<ul style="list-style-type: none"> <li>· <b>Langkah perlindungan khas untuk pengguna</b></li> <li>· <b>Kod bahaya (Kemler):</b></li> </ul>	Amaran: Bahan mengakis. 88

(Bersambung ke halaman 8)

## Risalah Data Keselamatan Bahan Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 7)

· <b>Nombor EMS:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Pengangkutan dalam pukal menurut Lampiran II MARPOL73/78 dan Kod IBC</b>	Tidak berkenaan
· <b>Pengangkutan/Maklumat Tambahan:</b>	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>"Peraturan Model" UN:</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5-PENTANADIAL), 8, III, ENVIRONMENTALLY HAZARDOUS

### 15 Maklumat Pengawalan

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



GHS05 GHS07 GHS08 GHS09

- **Perkataan isyarat Bahaya**
- **Komponen pelabelan yang menentukan bahaya:**  
1,5-pentanedial
- **Pernyataan hazard**  
Memudaratkan jika tertelan.  
Menyebabkan lecuran kulit dan kerosakan mata yang teruk.  
Boleh menyebabkan gejala alahan atau asma atau kesukaran bernafas jika tersedut.  
Boleh menyebabkan tindak balas alahan kulit.  
Sangat toksik kepada hidupan akuatik.
- **Pernyataan langkah perlindungan**  
Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas - Dilarang merokok.  
JIKA TERKENA KULIT (atau rambut): Tanggalkan semua pakaian yang tercemar dengan segera. Basuh kulit dengan air/pancuran.  
JIKA TERKENA MATA: Bilas berhati-hati dengan air selama beberapa minit. Tanggalkan kanta lekap, jika ada dan dapat dilakukan dengan mudah. Teruskan membilas.  
Segera hubungi PUSAT RACUN/doktor.  
Simpan di tempat berkunci.

(Bersambung ke halaman 9)

# Risalah Data Keselamatan Bahan

## Menurut 91/155 EC

Tarikh cetak 10.08.2016

Disemak semula pada 10.08.2016

**Nama dagang: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(Sambungan halaman 8)

Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.  
 · **Penilaian keselamatan bahan kimia:** Penilaian Keselamatan Bahan Kimia belum dilakukan.

### 16 Maklumat lain

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

· **Singkatan dan akronim:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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

Toks. Akut 4: Acute toxicity – Category 4

Kks. Kulit 1B: Skin corrosion/irritation – Category 1B

Kros. Mata 1: Serious eye damage/eye irritation – Category 1

Pem. Naf. 1: Respiratory sensitisation – Category 1

Pem. Kulit 1: Skin sensitisation – Category 1

Akuatik Akut 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

# 物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2016.08.10

在 2016.08.10 審核

## 1 化學品及企業標識

- 產品識別者
- 化學品中文(英文)名稱, 化學品俗名或商品名: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- 商品編號: 16214, 16216, 16216-10
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 原材料的應用/準備工作進行 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 危險性概述

### · 緊急情況概述:

根據產品規格, 流體, 可燃液體。 吞嚥有害。 吸入可能有害。 引起嚴重的皮膚灼傷和眼睛損傷。 吸入可能引起過敏或哮喘症狀或呼吸困難。 可能引起皮膚過敏性反應。

### · GHS危險性類別



健康危險

呼吸道過敏物質 第1級 H334 吸入可能引起過敏或哮喘症狀或呼吸困難



腐蝕

腐蝕/刺激皮膚物質 第1B級 H314 引起嚴重的皮膚灼傷和眼睛損傷  
嚴重損傷/刺激眼睛物質 第1級 H318 引起嚴重的眼睛損傷



急毒性物質(吞食) 第4級 H302 吞嚥有害  
皮膚過敏物質 第1級 H317 可能引起皮膚過敏性反應

易燃液體 第4級 H227 可燃液體  
急毒性物質(吸入) 第5級 H333 吸入可能有害

### · 標籤因素

- 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。

(在 2 頁繼續)

## 物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2016.08.10

在 2016.08.10 審核

化學品中文(英文)名稱, 化學品俗名或商品名: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(在 1 頁繼續)

## 圖示



GHS05 GHS07 GHS08

## 名稱 危險

## 標籤上辨別危險的成份:

1,5- 戊二醛

## 危險字句

可燃液體

吞咽有害

吸入可能有害

引起嚴重的皮膚灼傷和眼睛損傷

吸入可能引起過敏或哮喘症狀或呼吸困難

可能引起皮膚過敏性反應

## 警戒字句

## 預防措施

遠離熱源/火花/明火/熱表面。—禁止吸煙。

## 事故響應

如皮膚(或頭髮)沾染: 立即脫掉所有沾染的衣服。用水清洗皮膚/淋浴。

如進入眼睛: 用水小心沖洗幾分鐘。如戴隱型眼鏡並可方便地取出, 取出隱型眼鏡。繼續沖洗。

立即呼叫解毒中心/醫生

## 安全貯存

存放處須加鎖。

## 廢棄處置

按照本地 / 地區 / 國家 / 國際規例處理內含物 / 容器。

## 其他有害性

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

PBT(殘留性、生物濃縮性、毒性物質) 不適用的

vPvB(高殘留性、高生物濃縮性物質): 不適用的

## 3 成分/組成資訊

## 混合物

描述: 由以下含有無害添加劑的成分組成的混合物

## 危險的成分:

111-30-8	1,5- 戊二醛 ⚠ 呼吸道過敏物質 第1級, H334; ⚠ 腐蝕/刺激皮膚物質 第1B級, H314; ⚠ 急毒性物質(吸入) 第4級, H332; 皮膚過敏物質 第1級, H317; 易燃液體 第4級, H227	10-25%
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## 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。

## 吸入:

供給新鮮空氣並且確保會叫醫生。

(在 3 頁繼續)

# 物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2016.08.10

在 2016.08.10 審核

**化學品中文(英文)名稱, 化學品俗名或商品名:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(在 2 頁繼續)

- 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:**  
馬上召喚醫生.  
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 消防措施

- **滅火方法**
- **滅火的方法和滅火劑:** 二氧化碳 (CO<sub>2</sub>)、滅火粉末或灑水. 使用灑水或抗酒精泡沫滅火劑撲滅較大的火種.
- **特別危險性** 無相關詳細資料。
- **特殊滅火方法**
- **消防人員特殊的防護裝備:** 口腔呼吸保護裝置.

## 6 洩漏應急處理

- **保護措施** 帶上保護儀器. 讓未受到保護的人們遠離.
- **環境保護措施:**  
如果滲入了水源或污水系統,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.  
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 操作處置與儲存

- **操作處置**
- **儲存**  
確保工作間有良好的通風/排氣裝置.  
防止氣溶膠的形成.
- **有關火災及防止爆炸的資料:** 防熱.
- **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.  
免受接觸熱力和直接受陽光照射.

(在 4 頁繼續)

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(在 3 頁繼續)

· 具體的最終用戶 無相關詳細資料。

## 8 接觸控制和個體防護

· 工程控制方法: 沒有進一步數據, 見第 7 項。

· 控制變數

· 在工作場需要監控的限值成分

111-30-8 1,5- 戊二 醛

PEL (TW) | PC-TWA: 0.82 mg/m<sup>3</sup>, 0.2 ppm

· 額外的資料: 制作期間有效的清單將作為基礎來使用。

· 遺漏控制

· 個人防護設備:

· 一般保護和衛生措施:

遠離食品、飲料和飼料。

立即除去所有的不潔的和被污染的衣服。

在休息之前和工作完畢後請清洗雙手。

避免和眼睛接觸。

避免和眼睛及皮膚接觸。

· 呼吸系統防護:

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

· 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 理化特性

· 有關基本物理及化學特性的資訊

· 一般說明

· 外觀:

形狀: 流體

顏色: 根據產品規格

· 氣味: 類似水果

(在 5 頁繼續)



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(在 4 頁繼續)

· 嗅覺閾限	未決定.
· pH值:	未決定.
· 條件的更改	
熔點:	未確定的
沸點/初沸點和沸程:	100 °C
· 閃點:	71 °C
· 可燃性(固體、氣體):	不適用的
· 點火溫度:	
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:	未決定.
· 爆炸極限:	
較低:	未決定.
較高:	未決定.
· 蒸氣壓 在 20 °C:	23 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.
· 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:	0.3 %
水:	74.8 %
· 其他資訊	無相關詳細資料。

## 10 穩定性和反應性

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

TW

(在 6 頁繼續)

## 物質安全資料表

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(在 5 頁繼續)

## 11 毒理學資訊

## · 對毒性學影響的資訊

## · 急性毒性:

## · 與分類相關的 LD/LC50 值:

## 111-30-8 1,5- 戊二醛

口腔	LD50	134 mg/kg (rat)
皮膚	LD50	2560 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:

根據有關配製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:

有害的

腐蝕性的

刺激性的

吞嚥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 生態學資訊

## · 生態毒性

· 水生毒性: 無相關詳細資料。

· 持久性和降解性 無相關詳細資料。

## · 環境系統習性:

· 潛在的生物累積性 無相關詳細資料。

· 土壤內移動性 無相關詳細資料。

## · 生態毒性的影響:

· 備注: 對魚類有劇毒

## · 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.

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

· PBT(殘留性、生物濃縮性、毒性物質) 不適用的

· vPvB(高殘留性、高生物濃縮性物質): 不適用的

· 其他副作用 無相關詳細資料。

-TW-

(在 7 頁繼續)

## 物質安全資料表

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(在 6 頁繼續)

## 13 廢棄處置

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

## 14 運輸資訊

· 聯合國危險貨物編號(UN號)	UN3265
· ADR, IMDG, IATA	
· UN適當裝船名	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5- 戊二 醛), ENVIRONMENTALLY HAZARDOUS
· ADR	
· IMDG	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT
· IATA	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
· 運輸危險等級	
· ADR, IATA	
· 級別	8 腐蝕性物質
· 標籤	8
· IMDG	
· Class	8 腐蝕性物質
· Label	8
· 包裝組別	
· ADR, IMDG, IATA	III
· 危害環境:	該產品含有對環境有害的原料: 1,5- 戊二 醛
· 海運汙染物質:	象徵符號 (魚和樹)
· 用戶特別預防措施	警告: 腐蝕性物質
· 危險編碼:	88
· EMS 號碼:	F-A,S-B
· Segregation groups	Acids
· Stowage Category	A

(在 8 頁繼續)

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(在 7 頁繼續)

· Stowage Code	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: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "標準規定":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1,5- 戊二 醛), 8, III, ENVIRONMENTALLY HAZARDOUS

## 15 法規資訊

· 對相應純物質或者混合物的安全、保健及環境法規/法律

· 中國現有化學物質名錄

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。

· 圖示



GHS05 GHS07 GHS08

· 名稱 危險

· 標籤上辨別危險的成份:

1,5- 戊二 醛

· 危險字句

可燃液體

吞咽有害

吸入可能有害

引起嚴重的皮膚灼傷和眼睛損傷

吸入可能引起過敏或哮喘症狀或呼吸困難

可能引起皮膚過敏性反應

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 — 禁止吸煙。

· 事故響應

如皮膚(或頭髮)沾染: 立即脫掉所有沾染的衣服。用水清洗皮膚/淋浴。

如進入眼睛: 用水小心沖洗幾分鐘。如戴隱型眼鏡並可方便地取出, 取出隱型眼鏡。繼續沖洗。

立即呼叫解毒中心/醫生

(在 9 頁繼續)

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(在 8 頁繼續)

- **安全貯存**  
存放處須加鎖。
- **廢棄處置**  
按照本地 / 地區 / 國家 / 國際規例處理內含物 / 容器。
- **化學物質安全性評價**: 尚未進行化學物質安全性評價

## 16 其他資訊

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

### 縮寫:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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4級: Flammable liquids – Category 4

急毒性物質(吸入) 第4級: Acute toxicity – Category 4

急毒性物質(吸入) 第5級: Acute toxicity – Category 5

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

TW

# Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 10.08.2016

revidert den: 10.08.2016

## Avsnitt 1: Identifikasjon av kjemikaliyet og ansvarlig firma

- **1.1 Produktidentifikator**
- **Handelsnavn:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Artikkelnummer:** 16214, 16216, 16216-10
- **1.2 Relevante, identifiserte anvendelser av stoffet eller stoffblandingen, samt anvendelser som frarådes**  
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Enkeltopplysninger om foretaket som leverer sikkerhetsdatabladet**
- **Produsent/leverandør:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkck@aol.com  
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## Avsnitt 2: Viktigste faremomenter

- **2.1 Klassifisering av stoff eller stoffblanding**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



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.



GHS07

Skin Sens. 1 H317 Kan utløse en allergisk hudreaksjon.

STOT SE 3 H335 Kan forårsake irritasjon av luftveiene.

- **2.2 Etikettelelementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008**  
Produktet er klassifisert og merket i henhold til CLP-forordningen.

(fortsatt på side 2)

NO

# Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 10.08.2016

revidert den: 10.08.2016

**Handelsnavn: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(fortsatt fra side 1)

**Farepiktogrammer**


GHS05 GHS07 GHS08 GHS09

**Varselord Fare**
**Farebestemmende komponenter ved etikettering:**

glutaraldehyd

**Faresetninger**

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.

**Sikkerhetssetninger**

P260 Ikke innånd støv/røyk/gass/tåke/damp/aerosoler.

P303+P361+P353 VED HUDKONTAKT (eller håret): Tilsølte klær må fjernes straks. Skyll/dusj huden med vann.

P305+P351+P338 VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.

P310 Kontakt umiddelbart et GIFTINFORMASJONSSENTER/en lege.

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: Stoffblandingers sammensetning og stoffenes klassifisering

**3.2 Kjemisk karakterisering: Blandinger**
**Beskrivelse:** Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.

**Farlige innholdsstoffer:**

CAS: 111-30-8	glutaraldehyd	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

**Ytterligere informasjoner:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.

## Avsnitt 4: Førstehjelpstiltak

**4.1 Beskrivelse av førstehjelpstiltak**
**Generelle informasjoner:**

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.

**Etter innånding:**

Rikelig frisklufttilførsel, søk legehjelp for sikkerhets skyld.

Ved bevisstløshet lagring og transport i stabil sidestilling.

**Etter hudkontakt:** Vask straks med vann og sepe og skyll godt etterpå.

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- **Etter øyekontakt:** Skyll øynene med åpne øyenlokk i flere minutter under rennende vann og tilkall lege.
- **Etter svelging:**  
Søk lege straks.  
Drikk rikelig med vann og sørg for frisk luft. Tilkall lege omgående.
- **4.2 De viktigste symptomer og effekter, både akutt og forsinket** Ikke noe mer relevant informasjon tilgjengelig.
- **4.3 Indikasjon på omgående medisinsk hjelp eller påkrevet spesialbehandling**  
Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 5: Tiltak ved brannslukning

- **5.1 Slokkemiddel**
- **Egnede slukningsmidler:**  
CO<sub>2</sub>, slukningspulver eller vann i spredt stråle. Større branner bekjempes med vann i spredt stråle eller med skum som er motstandsdyktig mot alkohol.
- **5.2 Spesielle farer som oppstår pga. substanser eller blandinger** Ikke noe mer relevant informasjon tilgjengelig.
- **5.3 Informasjon vedr. brannbekjempelse**
- **Spesielt verneutstyr:** Ta på egnet åndedrettsbeskyttelse.

### Avsnitt 6: Tiltak ved utilsiktet utslipp

- **6.1 Personlige vernetiltak, verneutstyr og prosedyrer ved nødsituasjoner**  
Ta på beskyttelsesdrakt. Hold ubeskyttede personer borte.
- **6.2 Miljøverntiltak:**  
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 materiale for oppsamling og opprensing:**  
Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).  
Bruk nøytraliseringsmiddel.  
Bortskaff kontaminert matereriale som avfall i.h.t. punkt 13.  
Sørg for tilstrekkelig ventilasjon.
- **6.4 Henvisning til andre avsnitt**  
Informasjoner om sikker håndtering, se kapittel 7.  
Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.  
Informasjoner om bortskaffelse/deponering, se kapittel 13.

### Avsnitt 7: Håndtering og oppbevaring

- **7.1 Forholdsregler for sikker håndtering**  
Sørg for god ventilasjon/avsugning på arbeidsplassen.  
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:** Beskytt mot varme.
- **7.2 Vilkår for sikker lagring, inkl. eventuelle inkompatibiliteter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:**  
Hold beholderne tett tillukket.  
Beskyttes mot varme og direkte solpåvirkning.

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· **7.3 Spesiell sluttbruk** Ikke noe mer relevant informasjon tilgjengelig.

## Avsnitt 8: Eksponeringskontroll og personlig verneutstyr

· **Ytterligere informasjon om utforming av tekniske anlegg:** Ingen ytterligere informasjon, se punkt 7.

### · 8.1 Kontrollparametere

· **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

· **Ytterligere informasjon:** Basis: listene som var gyldige ved oppstillingen.

### · 8.2 Begrensning og kontroll av eksponering

#### · Personlig verneutstyr:

##### · Generelle verne- og hygienetiltak:

Holdes adskilt fra næringsmidler, drikkevarer og fôrstoffer.

Fjern omgående forurensede, gjennomvætede klær.

Vask hendene før arbeidspauser og ved arbeidets slutt.

Unngå berøring med øynene.

Unngå berøring med øyne og hud.

##### · Åndedrettsvern:

Ved korttidig 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/kjemikalieblanding.

Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

##### · **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenner og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsregnes, og denne må testes før bruk.

##### · **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

##### · Øyevern:



Tettsittende vernebrille

NO

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### Avsnitt 9: Fysiske og kjemiske egenskaper

· **9.1 Informasjon om grunnleggende fysiske og kjemiske egenskaper**

· **alminnelige opplysninger**

· **Utseende:**

· **Form:** Flytende  
· **Farge:** i.h.t. produktbetegnelse

· **Lukt:** Fruktlignende

· **Luktterskel:** Ikke bestemt.

· **pH-verdi:** Ikke bestemt.

· **Tilstandsending**

· **Smeltepunkt/smelteområde:** Ikke bestemt.

· **Kokepunkt/kokeområde:** 100 °C

· **Flammepunkt:** 71 °C

· **Antennelighet (fast, gassformet):** Ikke brukbar.

· **Antennelsestemperatur:**

· **Spaltningstemperatur:** Ikke bestemt.

· **Selvantennelighet:** Produktet er ikke selvantennelig.

· **Eksplisjonsfare:** Ikke bestemt.

· **Eksplisjonsgrenser:**

· **Nedre:** Ikke bestemt.

· **Øvre:** Ikke bestemt.

· **Damptrykk ved 20 °C:** 23 hPa

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

· **relativt tetthet:** Ikke bestemt.

· **damptetthet:** Ikke bestemt.

· **fordampningshastighet:** Ikke bestemt.

· **Løslighet i / blandbarhet med vann:**

Fullstendig blandbar.

· **Fordelingskoeffisient (n-oktanol/vann):** Ikke bestemt.

· **Viskositet:**

· **Dynamisk:** Ikke bestemt.

· **Kinematisk:** Ikke bestemt.

· **Løsningsmiddelandel:**

· **Organiske løsningsmidler:** 0,3 %

· **Vann:** 74,8 %

· **VOC (EF):** 0,25 %

· **9.2 Annen informasjon:** Ikke noe mer relevant informasjon tilgjengelig.

### 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 Mulighet for farlige reaksjoner:** Det kjennes ingen farlige reaksjoner.

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- **10.4 Forhold som bør unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Inkompatible materialer:** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytningsprodukter:** Ingen farlige spaltningsprodukter kjente.

### Avsnitt 11: Opplysninger om helsefare

- **11.1 Informasjon om toksikologiske virkninger**
- **Akutt giftighet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

- **Klassifiseringsrelevante LD/LC50-verdier:**

#### 111-30-8 glutaraldehyd

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 mg/kg (rabbit)

- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon**  
Gir alvorlige etseskader på hud og øyne.
- **Alvorlig øyeskade/øyeirritasjon**  
Gir alvorlig øyeskade.
- **Sensibiliserende ved innånding eller hudkontakt**  
Kan gi allergi eller astmasymptomer eller pustevansker ved innånding.  
Kan utløse en allergisk hudreaksjon.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Skader på arvestoffet i kjønnsceller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Kreftframkallende 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.

### Avsnitt 12: Miljøopplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumulasjonspotensial** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Økotoksiske virkninger:**
- **Bemerkning:** meget 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 ufortynnet eller uøytralisert 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
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.

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NO

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· **12.6 Andre skadelige virkninger** Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 13: Fjerning av kjemikalieavfall

· **13.1 Metoder for avfallsbehandling**

· **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: Opplysninger om transport

· **14.1 UN-nummer:**

· **ADR, IMDG, IATA**

UN3265

· **14.2 Korrekt UN-forsendelsesbetegnelse**

· **ADR**

3265 ETSENDE VÆSKE, SUR, ORGANISK, N.O.S.  
(glutaraldehyd), MILJØSKADELG STOFF

· **IMDG**

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
(Glutaraldehyd), MARINE POLLUTANT

· **IATA**

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

· **14.3 transport fareklasser**

· **ADR, IMDG**



· **klasse**

8 Etsende stoffer

· **Fareseddel**

8

· **IATA**



· **Class**

8 Etsende stoffer

· **Label**

8

· **14.4 Emballasjegruppe:**

· **ADR, IMDG, IATA**

III

· **14.5 Miljøfarer:**

Produktet inneholder miljøskadelige stoffer:  
glutaraldehyd

· **Marine pollutant:**

Symbol (fisk og treet)

· **Spesielle merking (ADR):**

Symbol (fisk og treet)

· **14.6 Særskilte forholdsregler for bruker**

Advarsel: Etsende stoffer

· **Kemler-tall:**

88

· **EMS-nummer:**

F-A,S-B

· **Segregation groups**

Acids

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· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Transport i bulk iht. annekts II til MARPOL 73/78 og til IBC-koden</b>	Ikke brukbar.
· <b>Transport/ytterligere informasjoner:</b>	
· <b>ADR</b>	
· <b>Begrenset mengde (LQ)</b>	5L
· <b>Unntatte mengder (EQ)</b>	Kode: E1 Maksimal nettovekt per inneremballasje: 30 ml Maksimal nettovekt per ytteremballasje: 1000 ml
· <b>Transportkategori</b>	3
· <b>Tunnel restriksjonskode</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Kode: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 ETSENDE VÆSKE, SUR, ORGANISK, N.O.S. (GLUTARALDEHYD), 8, III, MILJØSKADELG STOFF

### Avsnitt 15: Opplysninger om lover og forskrifter

- **15.1 Helse-, sikkerhets- og miljøforskrifter/lovgivning som gjelder spesielt for stoffet eller stoffblandingen**  
Ikke noe mer relevant informasjon tilgjengelig.
- **15.2 Kjemisk sikkerhetsvurdering:** En kjemisk sikkerhetsvurdering er ikke utført.

### Avsnitt 16: Andre opplysninger av betydning for helse, miljø og sikkerhet

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produkttegenskaper og er ikke grunnlag for noe kontraktmessig rettsforhold.

· **Relevante satser**

H314 Gir alvorlige etseskader på hud og øyne.

H317 Kan utløse en allergisk hudreaksjon.

H332 Farlig ved innånding.

H334 Kan gi allergi eller astmasymptomer eller pustevansker ved innånding.

H400 Meget giftig for liv i vann.

· **Forkortelser og akronymer:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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*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**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

NO

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

data da impressão 10.08.2016

Revisão: 10.08.2016

### SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL
- **Código do produto:** 16214, 16216, 16216-10
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
 Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



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.



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.

( continuação na página 2 )

# Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 10.08.2016

Revisão: 10.08.2016

Nome comercial: **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

(continuação da página 1)

· **Pictogramas de perigo**

GHS05 GHS07 GHS08 GHS09

· **Palavra-sinal Perigo**· **Componentes determinantes para os perigos constantes do rótulo:**

glutaral

· **Advertências de perigo**

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.

· **Recomendações de prudência**

P260 Não respirar as poeiras/fumos/gases/névoas/vapores/aerossóis.

P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.

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. Continuar a enxaguar.

P310 Contacte imediatamente um CENTRO DE INFORMAÇÃO ANTIVENENOS/médico.

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.· **Substâncias perigosas:**

CAS: 111-30-8	glutaral	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· **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.

· **Em caso de inalação:**

Assegurar uma boa entrada de oxigénio e, por razões de segurança, procurar auxílio médico.

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# Ficha de dados de segurança

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( continuação da página 2 )

- 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:**  
Consultar imediatamente o médico  
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:**  
CO<sub>2</sub>, pó extintor ou jacto de água. Um incêndio de grandes dimensões deve ser combatido com jacto de água ou espuma resistente ao álcool.
- **5.2 Perigos especiais decorrentes da substância ou mistura**  
Não existe mais nenhuma informação relevante disponível.
- **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 accidentais

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência**  
Usar equipamento de protecção. Manter as pessoas desprotegidas afastadas.
- **6.2 Precauções a nível ambiental:**  
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.  
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:** Proteger do calor.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.

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- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:**  
Manter o recipiente hermeticamente fechado.  
Proteger do calor e da radiação directa do sol.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

## SECÇÃO 8: Controlo da exposição/Protecção individual

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.

### 8.1 Parâmetros de controlo

- **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**

#### 111-30-8 glutaral

VLE	Valor limite de exposição – concentração máxima: 0,05 ppm S; A4; Irrit. ocular, do TRS, cutânea; SCN
-----	---

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

### 8.2 Controlo da exposição

#### Equipamento de protecção individual:

#### Medidas gerais de protecção e higiene:

- Manter afastado de alimentos, bebidas e forragens.
- Despir imediatamente a roupa contaminada e embebida.
- Lavar as mãos antes das pausas e no fim do trabalho.
- Evitar o contacto com os olhos.
- Evitar o contacto com os olhos e com a pele.

#### Protecção respiratória:

Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

#### Protecção das mãos:



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

PT

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### SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**

· **Informações gerais**

· **Aspecto:**

**Forma:**

Líquido

**Cor:**

Conforme a designação do produto

· **Odor:**

frutado

· **Limiar olfactivo:**

Não classificado.

· **valor pH:**

Não classificado.

· **Mudança do estado:**

**Ponto / intervalo de fusão:**

Não classificado.

**Ponto / intervalo de ebulição:**

100 °C

· **Ponto de inflamação:**

71 °C

· **Inflamabilidade (sólido, gás):**

Não aplicável.

· **Temperatura de ignição:**

**Temperatura de decomposição:**

Não classificado.

· **Auto-inflamabilidade:**

O produto não é auto-inflamável.

· **Perigos de explosão:**

Não classificado.

· **Limites de explosão:**

**Inferior:**

Não classificado.

**Superior:**

Não classificado.

· **Pressão de vapor em 20 °C:**

23 hPa

· **Densidade em 20 °C:**

1,129 g/cm<sup>3</sup>

· **Densidade relativa**

Não classificado.

· **Densidade de vapor**

Não classificado.

· **Velocidade de evaporação**

Não classificado.

· **Solubilidade em / miscibilidade com água:**

Completamente misturável.

· **Coefficiente de distribuição (n-octanol/água):** Não classificado.

· **Viscosidade:**

**Dinâmico:**

Não classificado.

**Cinémático:**

Não classificado.

· **Percentagem de solvente:**

**Solventes orgânicos:**

0,3 %

**Água:**

74,8 %

**VOC (UE)**

0,25 %

· **9.2 Outras informações**

Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 10: Estabilidade e reactividade

· **10.1 Reactividade** Não existe mais nenhuma informação relevante disponível.

· **10.2 Estabilidade química**

· **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.

· **10.3 Possibilidade de reacções perigosas** Não se conhecem reacções perigosas.

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- **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** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

- **Valores LD/LC50 relevantes para a classificação:**

#### 111-30-8 glutaral

por via oral	LD50	134 mg/kg (rat)
por via dérmica	LD50	2560 mg/kg (rabbit)

- **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.
- **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.
- **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
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

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· **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

### SECÇÃO 14: Informações relativas ao transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN3265
- **14.2 Designação oficial de transporte da ONU**
- **ADR** 3265 LÍQUIDO ORGÂNICO CORROSIVO, ÁCIDO, N.S.A. (glutaral), PERIGOSO PARA O AMBIENTE
- **IMDG** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT
- **IATA** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
- **14.3 Classes de perigo para efeitos de transporte**
- **ADR, IMDG**
- 
- **Classe** 8 Matérias corrosivas
- **Rótulo** 8
- **IATA**
- 
- **Class** 8 Matérias corrosivas
- **Label** 8
- **14.4 Grupo de embalagem**
- **ADR, IMDG, IATA** III
- **14.5 Perigos para o ambiente:** O produto contém matérias perigosas para o ambiente: glutaral
- **Poluente das águas:** Símbolo convencional (peixes e árvore)
- **Marcação especial (ADR):** Símbolo convencional (peixes e árvore)
- **14.6 Precauções especiais para o utilizador** Atenção: Matérias corrosivas
- **Nº Kemler:** 88
- **Nº EMS:** F-A,S-B
- **Segregation groups** Acids

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· <i>Stowage Category</i>	A
· <i>Stowage Code</i>	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>	5L
· <b>Quantidades exceptuadas (EQ)</b>	Código: E1 Quantidade líquida máxima por embalagem interior: 30 ml Quantidade líquida máxima por embalagem exterior: 1000 ml
· <b>Categoria de transporte</b>	3
· <b>Código de restrição em túneis</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3265 LÍQUIDO ORGÂNICO CORROSIVO, ÁCIDO, N.S.A. (GLUTARAL), 8, III, 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 metanol**
- **Categoria "Seveso" E1 Perigoso para o ambiente aquático**
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior 100 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**
- **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**

H314 Provoca queimaduras na pele e lesões oculares graves.

H317 Pode provocar uma reacção alérgica cutânea.

H332 Nocivo por inalação.

H334 Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.

H400 Muito tóxico para os organismos aquáticos.

· **Abreviaturas e acrónimos:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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*EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 4: Toxicidade aguda – Categoria 4**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**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*

PT



# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 10.08.2016

Revisión: 10.08.2016

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

· **Número del artículo:** 16214, 16216, 16216-10

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

No existen más datos relevantes disponibles.

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

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

##### · **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkcck@aol.com

www.emsdiasum.com

##### Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

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

#### · 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

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

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



GHS08 peligro para la salud

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.



GHS09 medio ambiente

Aquatic Acute 1 H400 Muy tóxico para los organismos acuáticos.



GHS07

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*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 GHS07 GHS08 GHS09

### · Palabra de advertencia Peligro

### · Componentes peligrosos a indicar en el etiquetaje:

*glutaral*

### · Indicaciones de peligro

*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.*

### · Consejos de prudencia

*P260 No respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.*

*P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ducharse.*

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

*P310 Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.*

*P405 Guardar bajo llave.*

*P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.*

### · 2.3 Otros peligros

### · Resultados de la valoración PBT y mPmB

· **PBT:** No aplicable.

· **mPmB:** No aplicable.

## SECCIÓN 3: Composición/información sobre los componentes

### · 3.2 Caracterización química: Mezclas

· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

### · Componentes peligrosos:

CAS: 111-30-8	glutaral	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

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

ES

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# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 10.08.2016

Revisión: 10.08.2016

**Nombre comercial: GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**

( se continua en página 2 )

### 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.

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

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

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

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

##### · En caso de con los ojos:

Limpia los ojos abiertos durante varios minutos con agua corriente y consultar un médico.

##### · En caso de ingestión:

Consultar inmediatamente un médico.

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:

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

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

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

##### · Equipo especial de protección: 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 ítem 13.

Asegurar suficiente ventilación.

#### · 6.4 Referencia a otras secciones

Ver capítulo 7 para mayor información sobre una manipulación segura.

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

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

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### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** Proteger del calor.
- **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.  
Proteger del calor y de la luz directa del sol.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

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

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

#### · 8.1 Parámetros de control

- **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	

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

#### · 8.2 Controles de la exposición

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

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

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

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

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

##### · **Protección respiratoria:**

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

##### · **Protección de manos:**



Guantes de protección

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

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

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

##### · **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

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· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**



Gafas de protección herméticas

### SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**

· **Datos generales**

· **Aspecto:**

Forma:

Líquido

Color:

Según denominación del producto

· **Olor:**

Similar al de las frutas

· **Umbral olfativo:**

No determinado.

· **valor pH:**

No determinado.

· **Cambio de estado**

Punto de fusión /campo de fusión:

Indeterminado.

Punto de ebullición /campo de ebullición: 100 °C

· **Punto de inflamación:**

71 °C

· **Inflamabilidad (sólido, gaseiforme):**

No aplicable.

· **Temperatura de ignición:**

Temperatura de descomposición:

No determinado.

· **Autoinflamabilidad:**

El producto no es autoinflamable.

· **Peligro de explosión:**

No determinado.

· **Límites de explosión:**

Inferior:

No determinado.

Superior:

No determinado.

· **Presión de vapor a 20 °C:**

23 hPa

· **Densidad a 20 °C:**

1,129 g/cm<sup>3</sup>

· **Densidad relativa**

No determinado.

· **Densidad de vapor**

No determinado.

· **Velocidad de evaporación**

No determinado.

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

Completamente mezclable.

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

No determinado.

· **Viscosidad:**

Dinámica:

No determinado.

Cinemática:

No determinado.

· **Concentración del disolvente:**

Disolventes orgánicos:

0,3 %

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Agua:	74,8 %
VOC (CE)	0,25 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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

#### 111-30-8 glutaral

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 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.
- **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.

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· **Efectos ecotóxicos:**

· **Observación:** Muy tóxico para peces.

· **Indicaciones medioambientales adicionales:**

· **Indicaciones generales:**

Nivel de riesgo para el agua 3 (autoclasiificación): 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

· **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**

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

· **IATA**

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

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

· **ADR, IMDG**



· **Clase**

8 Materias corrosivas

· **Etiqueta**

8

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<p>· <b>IATA</b></p> 	
· <b>Class</b>	8 Materias corrosivas
· <b>Label</b>	8
· <b>14.4 Grupo de embalaje</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Peligros para el medio ambiente:</b>	El producto contiene materias peligrosas para el medio ambiente: glutaral
· <b>Contaminante marino:</b>	Símbolo (pez y árbol)
· <b>Marcado especial (ADR):</b>	Símbolo (pez y árbol)
· <b>14.6 Precauciones particulares para los usuarios</b>	Atención: Materias corrosivas
· <b>Número Kemler:</b>	88
· <b>Número EMS:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</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>	5L
· <b>Cantidades exceptuadas (EQ)</b>	Código: E1 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 1000 ml
· <b>Categoría de transporte</b>	3
· <b>Código de restricción del túnel</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>"Reglamentación Modelo" de la UNECE:</b>	UN 3265 LÍQUIDO CORROSIVO, ÁCIDO, ORGÁNICO, N.E.P. (GLUTARAL), 8, III, 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 metanol**
- **Categoría Seveso E1 Peligroso para el medio ambiente acuático**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 100 t**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 200 t**

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- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3**
- **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

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

H317 Puede provocar una reacción alérgica en la piel.

H332 Nocivo en caso de inhalación.

H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

H400 Muy tóxico para los organismos acuáticos.

#### · Abreviaturas y acrónimos:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Toxicidad aguda – Categoría 4

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

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



# แผ่นข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### การระบุสาร/ การทำ/ และของบริษัท / บริษัทที่เข้าถือครอง

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL**
- เลขที่รายชื่อ 16214, 16216, 16216-10
- 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: sgkcck@aol.com  
www.emsdiasum.com
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### การระบุสิ่งที่เป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับ (จีซี) เลขที่ 1272/2008



สิ่งอันตรายต่อสุขภาพ

Resp. Sens. 1 H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า



การกัดกร่อน

Skin Corr. 1 H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา

Eye Dam. 1 H318 เป็นสาเหตุให้เกิดอันตรายต่อดวงตาอย่างสาหัส



สิ่งแวดล้อม

Aquatic Acute 1 H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ



Skin Sens. 1 H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

STOT SE 3 H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ

- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 ผลิตภัณฑ์ได้รับการจัดประเภทและติดฉลากตามข้อบังคับของ CLP

(ต่อที่หน้า 2)

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# แผ่นข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อหน้า 1)

#### · ภาพสัญลักษณ์สิ่งที่เป็นอันตราย



GHS05 GHS07 GHS08 GHS09

#### · สัญญาณคำ อันตราย

#### · ส่วนประกอบที่ระบุอันตรายบนฉลาก

Glutaraldehyde

#### · ประกาศสิ่งที่เป็นอันตราย

H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา

H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า

H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ

H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ

#### · ประกาศการป้องกันระดับระงับภัย

P260 ห้ามสูดหายใจเอาฝุ่น/ ไอสาร/ แกส/ หมอก/ไอ/ ละอองฟุ้ง

P303+P361+P353 หากสัมผัสผิวหนัง (หรือเส้นผม) ถอดเสื้อผ้าที่เปื้อนทั้งหมดทันที ล้างผิวหนังด้วยน้ำ/อาบน้ำ

P305+P351+P338 หากเข้าตา : ชะล้างด้วยน้ำอย่างระมัดระวังเป็นเวลาหลายๆนาที ถอดคอนแทกซ์เลนส์ถ้ายังอยู่ที่ตมและสะดวกที่จะทำก็ให้ชะล้างต่อไป

P310 โทรศัพท์ถึงศูนย์พิษวิทยา/แพทย์ ทันที

P405 เก็บในที่ใส่กุญแจปิด

P501 ทิ้งสิ่งที่ย่อย/ภาชนะที่ย่อยตามกฎหมายของท้องถิ่น/แคว้น/ในประเทศ/ระหว่างประเทศ

#### · 2.3 อันตรายอื่นๆ

#### · ผลของ PBT และการประเมิน vPvB

· PBT: ไม่สามารถใช้ได้

· vPvB: ไม่สามารถใช้ได้

### ส่วนประกอบ/ ข้อมูลรายละเอียดของส่วนผสมต่างๆ

#### · 3.2 คุณลักษณะทางเคมี: ส่วนผสม

· คำอธิบาย ส่วนผสมของสารในรายการข้างล่างพร้อมสารเติมแต่งที่ไม่เป็นอันตราย

#### · ส่วนประกอบที่มีอันตราย

CAS: 111-30-8	Glutaraldehyde	10-25%
EINECS: 203-856-5	Resp. Sens. 1, H334;  Skin Corr. 1, H314;  Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Sens. 1, H317	

· ข้อมูลรายละเอียดเสริม สำหรับข้อความที่ระบุในรายการวลีความเสี่ยงที่อ้างอิงถึงในส่วนที่ 16

### มาตรการการปฐมพยาบาลเบื้องต้น

#### · 4.1 คำอธิบายถึงมาตรการปฐมพยาบาล

#### · ข้อมูลรายละเอียดทั่วไป

ให้ถอดเสื้อผ้าที่เปื้อนออกทันที

อาการจากพิษอาจเกิดขึ้นหลังจากนั้นหลายชั่วโมงดังนั้นจะต้องเฝ้าติดตามอาการทางการแพทย์

อย่างน้อย 48 ชั่วโมงหลังจากอุบัติเหตุ

#### · หลังจากการสูดหายใจเข้าไป

หาบริเวณที่มีอากาศบริสุทธิ์และเพื่อให้อากาศสดชื่น

ในกรณีที่คุณไม่รู้สึกตัวให้ขนย้ายคนไข้อย่างมั่นคงในท่าตะแคงด้านข้าง

#### · หลังจากการสัมผัสผิวหนัง

ล้างด้วยน้ำและสบู่แล้วฟอกให้ทั่วทันที

#### · หลังจากการสัมผัสสูดดม

ชะตาที่เปิดอยู่ใต้น้ำที่กำลังไหลเป็นเวลาหลายๆนาทีจากนั้นให้ปรึกษาแพทย์

(ต่อหน้า 3)

# แผนข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อที่หน้า 2)

- **หลังจากการกลืนเข้าไป:**  
พบแพทย์โดยทันที  
ดื่มน้ำมากๆ และให้สูดอากาศบริสุทธิ์พบแพทย์โดยทันที
- **4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ**  
ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- **4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น**  
ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### มาตรการการดับเพลิง

- **5.1 สารที่ใช้ดับเพลิง**
- **สารดับเพลิงที่เหมาะสม**  
คาร์บอนไดออกไซด์สเปย์ผงหรือน้ำดับเพลิงขนาดใหญ่ด้วยการฉีดน้ำหรือโฟมแอลกอฮอล์ที่ทนทาน
- **5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม** ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- **5.3 คำแนะนำสำหรับพนักงานดับเพลิง**
- **อุปกรณ์ป้องกันภัย** อุปกรณ์ป้องกันซึ่งเหมาะสำหรับการหายใจทางปาก

### มาตรการลดอุบัติเหตุ

- **6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน**  
สวมอุปกรณ์ป้องกันภัยกันคนที่ไม่มียุติภัณฑ์ป้องกันออกไป
- **6.2 การให้ความคุ้มครองสิ่งแวดล้อมส่วนหน้า:**  
แจ้งผู้มีอำนาจที่เกี่ยวข้องในกรณีที่เกิดการไหลซึมเข้าสู่น้ำหรือระบบระบายน้ำ  
ทำให้เจือจางด้วยน้ำมากๆ  
อย่าปล่อยให้เข้าไปในท่อน้ำทิ้ง/ น้ำบนดินหรือใต้ดิน
- **6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจุและการทำความสะอาด:**  
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ ( ทรายอะตอไมท์ตัวยึดเกาะกรดตัวยึดต่างๆไปซื้อ  
ล้อย)  
ใช้สารทำให้เป็นกลาง  
ทิ้งวัสดุที่ปนเปื้อนเป็นของเสียตามรายการในบัญชี 13  
ตรวจให้แน่ใจว่ามีการระบายอากาศที่ดีพอ
- **6.4 การอ้างอิงถึงส่วนอื่น**  
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7  
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8  
ดูข้อมูลรายละเอียดเรื่องการจัดเก็บจากส่วนที่ 13

### การขนถ่ายและการจัดเก็บ

- **7.1 การป้องกันส่วนหน้าสำหรับการจัดการด้านความปลอดภัย**  
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ ไอเสียที่ดี  
ป้องกันการเกิดละอองสารฟุ้ง
- **ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด** ป้องกันให้พ้นจากความร้อน
- **7.2 เงื่อนไขในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ**
- **การจัดเก็บ**
- **ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ** ไม่มีข้อกำหนดพิเศษ
- **ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม** ไม่ได้กำหนด
- **ข้อมูลรายละเอียดเพิ่มเติมด้านสภาพการจัดเก็บ**  
เก็บโดยปิดผนึกอย่างแน่นหนา  
ป้องกันให้พ้นจากความร้อนและแสงแดดส่อง

(ต่อที่หน้า 4)

-TH-

# แผนข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อหน้า 3)

- 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### การควบคุมการทิ้งในลักษณะเปิด / การป้องกันภัยส่วนบุคคล

- ข้อมูลรายละเอียดเสริมสำหรับการออกแบบสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7

#### 8.1 การควบคุมตัวแปร

- ส่วนผสมพร้อมค่าขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน

##### 111-30-8 Glutaraldehyde

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: 0.2 mg/m<sup>3</sup>, 0.05 ppm  
DSEN;RSEN ;activated or inactivated

- ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการปฏิบัติงานเป็นหลัก

#### 8.2 การควบคุมการสัมผัส

##### อุปกรณ์ป้องกันภัยส่วนบุคคล

##### มาตรการการป้องกันและสุขอนามัยทั่วไป

เก็บให้ห่างจากสิ่งของที่เป็นอาหาร เครื่องดื่ม และอาหารสัตว์

ให้ถอดเสื้อผ้าที่เปื้อนและเจือปนออกทันที

ล้างมือก่อนที่จะหยุดพักและเมื่อสิ้นสุดเวลาทำงาน

หลีกเลี่ยงการสัมผัสถูกตา

หลีกเลี่ยงการสัมผัสถูกตาและผิวหนัง

##### การป้องกันการสูดหายใจเข้าไป

ในกรณีที่อยู่เป็นเวลาสั้นหรืออากาศเป็นพิษระดับต่ำ ใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรืออยู่เป็นเวลานาน ให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว

การป้องกันการสูดหายใจเข้าไป

##### การป้องกันมือ



ถุงมือป้องกัน

วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต

เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถุงมือสำหรับผลิตภัณฑ์ / การผลิต / ของผสมเคมี

เลือกวัสดุสำหรับถุงมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม

##### วัสดุที่ใช้ทำถุงมือ

การเลือกใช้ถุงมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพ

และข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่งโดยที่ผู้ผลิตภัณฑ์เตรียมมาจากสารหลายชนิดความทนทานของวัสดุถุงมือไม่สามารถที่จะคำนวณล่วงหน้าดังนั้นจึงต้องตรวจสอบกับการใช้งาน

##### เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถุงมือ

ผู้ผลิตถุงมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม

##### การป้องกันตา



แว่นตาที่ขอบปิดสนิท

TH

(ต่อหน้า 5)

# แผ่นข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อหน้า 4)

#### คุณสมบัติทางกายภาพและเคมี

<ul style="list-style-type: none"> <li>9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี</li> <li>ข้อมูลรายละเอียดทั่วไป</li> <li>ลักษณะ : <ul style="list-style-type: none"> <li>รูปสีฐาน : ของไหล</li> <li>สี : ตามรายละเอียดของผลิตภัณฑ์</li> <li>กลิ่น : คล้ายผลไม้</li> <li>เกณฑ์กลิ่น : ไม่ได้กำหนดไว้.</li> </ul> </li> </ul>	
· ค่า pH	ไม่ได้กำหนดไว้.
· การเปลี่ยนแปลงสถานะ จุดหลอมเหลว/ ขอบเขตการหลอมละลาย จุดเดือด/ ขอบเขตการเดือด	ไม่ได้กำหนด 100 °C
· จุดวาบไฟ	71 °C
· ความสามารถติดไฟ (ของแข็งแกส)	ไม่สามารถใช้ได้
· อุณหภูมิจุดระเบิด	
· อุณหภูมิละลายตัว	ไม่ได้กำหนดไว้.
· การเผาไหม้ด้วยตัวเอง	ผลิตภัณฑ์ไม่เป็นสารจุดไฟติดด้วยตัวเอง
· อันตรายจากการระเบิด	ไม่ได้กำหนดไว้.
· ขอบเขตการระเบิด ขั้นต่ำ ขั้นสูง	ไม่ได้กำหนดไว้. ไม่ได้กำหนดไว้.
· ความดันไอ ที่ 20 °C	23 hPa
· ความหนาแน่น ที่ 20 °C	1.129 g/cm <sup>3</sup>
· ความหนาแน่นสัมพัทธ์	ไม่ได้กำหนดไว้.
· ความหนาแน่นของไอ	ไม่ได้กำหนดไว้.
· อัตราการระเหย	ไม่ได้กำหนดไว้.
· ความสามารถในการละลายใน / ความสามารถผสมเป็นสารละลายเนื้อเดียวทุกส่วนผสมกับน้ำ	ผสมกันได้อย่างเต็มที่
· สัมประสิทธิ์การแยกตัว (เอ็น-ออกทานอล/น้ำ)	ไม่ได้กำหนดไว้.
· ความหนืด (ไดนามิก) พลศาสตร์ (คิเนมาติก) จลนศาสตร์	ไม่ได้กำหนดไว้. ไม่ได้กำหนดไว้.
· ปริมาณส่วนประกอบตัวทำละลาย ตัวทำละลายอินทรีย์ น้ำ VOC (EC)	0.3 % 74.8 % 0.25 %
· 9.2 ข้อมูลอื่นๆ	ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### ความเสถียรและความสามารถในการทำปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เจือจางที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้

(ต่อหน้า 6)

# แผนข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10

### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อหน้า 5)

- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย ไม่มีปฏิกิริยาเป็นอันตรายที่รู้จัก
- 10.4 เงื่อนไขเพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

### ข้อมูลรายละเอียดเกี่ยวกับพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา
- ความเป็นพิษอย่างสาหัส:

- การจัดแบ่งตามค่า LD/LC50

#### 111-30-8 Glutaraldehyde

ทางปาก	LD50	134 mg/kg (rat)
ทางผิวหนัง	LD50	2560 mg/kg (rabbit)

- **อาการระคายเคืองเบื้องต้น**
- **บนผิวหนัง**  
เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา
- **ที่ดวงตา**  
เป็นสาเหตุให้เกิดอันตรายต่อดวงตาอย่างสาหัส
- **การทำให้แพ้**  
อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า  
อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

### ข้อมูลรายละเอียดเกี่ยวกับนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- ผลกระทบด้านพิษต่อระบบนิเวศน์
- **ข้อสังเกต** เป็นพิษมากสำหรับปลา
- **ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา**
- **หมายเหตุทั่วไป**  
เป็นอันตรายต่อน้ำชั้น 3 ( กฎข้อบังคับของเยอรมัน ) ( การประเมินค่าด้วยตัวเอง ) : เป็นอันตรายสูงสุดกับน้ำ  
อย่าปล่อยให้ผลิตภัณฑ์ไปถึงน้ำผิวดินเส้นทางน้ำหรือระบบระบายน้ำเสียแม้ว่าจะเป็นปริมาณเล็กน้อยเท่านั้น  
ผลิตภัณฑ์ที่ยังไม่ได้เจือจางหรือยังไม่ได้ทำให้เป็นกลางต้องไม่ไปถึงน้ำเสียหรือระบายน้ำ  
เป็นอันตรายต่อน้ำดื่มแม้จะร่วงลงในพื้นดินเป็นปริมาณที่น้อยมากก็ตาม  
เป็นพิษกับปลาและแพลงก์ตอนในผิวน้ำ  
มีพิษมากต่อสิ่งมีชีวิตในน้ำ
- 12.5 ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้
- 12.6 ผลข้างเคียงอื่นๆ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

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(ต่อหน้า 7)

# แผนข้อมูลความปลอดภัย

## ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2016.08.10

การปรับปรุงใหม่ : 2016.08.10



### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อหน้า 6)

#### การพิจารณาการกำจัด

- 13.1 วิธีการกำจัดของเสีย
- คำแนะนำ ต้องไม่ทิ้งไปพร้อมกับขยะจากบ้านเรือนอย่าปล่อยให้ผลิตภัณฑ์เข้าถึงระบบระบายน้ำเสีย
- ภาชนะบรรจุที่ยังไม่ได้ล้างทำความสะอาด
- คำแนะนำ การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ
- สารทำความสะอาดที่แนะนำ น้ำถ้าจำเป็นใช้คู่กับสารทำความสะอาด

#### ข้อมูลรายละเอียดในการขนส่ง

· 14.1 เลขที่ UN	UN3265
· ADR, IMDG, IATA	
· 14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), ENVIRONMENTALLY HAZARDOUS
· ADR	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde), MARINE POLLUTANT
· IMDG	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glutaraldehyde)
· IATA	
· 14.3 ชั้นเรียนอันตรายจากการขนส่ง	
· ADR, IMDG	
	
· ประเภท	8 สารกัดกร่อน
· ฉลากสิ่งที่เป็นอันตราย	8
· IATA	
	
· Class	8 สารกัดกร่อน
· Label	8
· 14.4 กลุ่มของภาชนะบรรจุ	III
· ADR, IMDG, IATA	
· 14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม	ผลิตภัณฑ์ประกอบด้วยวัสดุที่เป็นอันตรายต่อสภาพแวดล้อม : Glutaraldehyde
· สารที่เป็นพิษต่อทะเล	สัญลักษณ์ (ปลาและต้นไม้)
· เฉพาะการติดฉลาก (ADR):	สัญลักษณ์ (ปลาและต้นไม้)
· 14.6 การป้องกันพิเศษล่วงหน้าสำหรับผู้ใช้	คำเตือน !: สารกัดกร่อน
· รหัสความอันตราย:	88
· หมายเลข EMS	F-A,S-B
· Segregation groups	Acids
· Stowage Category	A

(ต่อหน้า 8)

# แผนข้อมูลความปลอดภัย

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### ชื่อทางการค้า GLUTARALDEHYDE EM GRADE 25% AQUEOUS IN SERUM VIAL

(ต่อที่หน้า 7)

· Stowage Code	SW2 Clear of living quarters.
· 14.7 การขนส่งขนาดใหญ่ตามภาคผนวก 2 ของ MARPOL73/78 และรหัส IBC	ไม่สามารถใช้ได้
· การขนส่ง/ข้อมูลรายละเอียดเสริม	
· ADR	
· ปริมาณที่จำกัด (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· หมวดหมู่การขนส่ง	3
· รหัสควบคุมการผ่านอุโมงค์	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· “กฎระเบียบต้นแบบ” ของ UN	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLUTARALDEHYDE), 8, III, ENVIRONMENTALLY HAZARDOUS

### ข้อมูลรายละเอียดของกฎระเบียบ

- 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม  
ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

### ข้อมูลรายละเอียดอื่นๆ

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

#### · วลีที่เกี่ยวข้องกับ

- H314 เป็นสาเหตุให้ผิวหนังไหม้อย่างสาหัสและทำอันตรายต่อดวงตา
- H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้
- H332 ให้โทษหากสูดหายใจเข้า
- H334 อาจเป็นสาเหตุให้เกิดการแพ้หรืออาการโรคหืดหรือหายใจลำบากหากสูดหายใจเข้า
- H400 มีพิษมากต่อสิ่งมีชีวิตในน้ำ

#### · คำย่อและชื่อย่อที่ผสมขึ้น

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity – Category 4

(ต่อที่หน้า 9)



**แผ่นข้อมูลความปลอดภัย**  
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(ต่อหน้า 8)

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  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

TH