

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/13/2020

Reviewed on 04/13/2020

## 1 Identification

- **Product identifier**
- **Trade name:** EPO-FIX EMBEDDING RESIN
- **Article number:** 1232-A, 1232-R
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

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



- **Signal word** Warning
- **Hazard-determining components of labeling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves / eye protection / face protection.  
If on skin: Wash with plenty of water.

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*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

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

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

*Specific treatment (see on this label).*

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

*Wash contaminated clothing before reuse.*

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	>50- $\leq$ 100%
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	>25- $\leq$ 50%

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

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

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

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

· **After eye contact:**

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

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

· **Information for doctor:**

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

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

*No further relevant information available.*

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Trade name: **EPO-FIX EMBEDDING RESIN**

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	90 mg/m <sup>3</sup>
------------	----------------------------------------------------------------------------------------------------------	----------------------

- **PAC-2:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	990 mg/m <sup>3</sup>
------------	----------------------------------------------------------------------------------------------------------	-----------------------

- **PAC-3:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	5,900 mg/m <sup>3</sup>
------------	----------------------------------------------------------------------------------------------------------	-------------------------

## 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:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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## 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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

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

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

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
- **Odor:** Odorless
- **Odor threshold:** Not determined.

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· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	177 °C (350.6 °F)
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C (68 °F):</b>	1.1 g/cm <sup>3</sup> (9.1795 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gal
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

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## 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
  - **Sensitization:** Sensitization possible through skin contact.
  - **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
  - **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.         |
- |                                                              |
|--------------------------------------------------------------|
| · <b>OSHA-Ca (Occupational Safety Health Administration)</b> |
| 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:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
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.

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

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<p>Void</p> <p>UN3082</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	<p>Void</p> <p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>))</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> <li>· <b>Class</b></li> </ul>	<p>Void</p>
<ul style="list-style-type: none"> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<p>9</p>
<div style="text-align: center;">  </div>	<p>9 Miscellaneous dangerous substances and articles</p>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>9</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<p>Void</p> <p>III</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	<p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	<p>Warning: Miscellaneous dangerous substances and articles</p> <p>90</p> <p>F-A,S-F</p> <p>A</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<p>Not applicable.</p>

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Trade name: **EPO-FIX EMBEDDING RESIN**

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· **Transport/Additional information:**

· **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)**

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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT  $\leq$  700)), 9, III

## 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):**

None of the ingredients is listed.

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **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).

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Reviewed on 04/13/2020

Trade name: **EPO-FIX EMBEDDING RESIN**

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· **Hazard pictograms**

GHS07

· **Signal word** Warning· **Hazard-determining components of labeling:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

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

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

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** 04/13/2020 / -· **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)

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****Skin Irrit. 2: Skin corrosion/irritation – Category 2**

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**Trade name: EPO-FIX EMBEDDING RESIN**

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*  
*Skin Sens. 1: Skin sensitisation – Category 1*

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# Safety Data Sheet

## according to WHS Regulations

Printing date 13.04.2020

Revision: 13.04.2020

### 1 Identification

- **Product identifier**
- **Trade name:** EPO-FIX EMBEDDING RESIN
- **Article number:** 1232-A, 1232-R
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://ems.proscitech.com)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: [www.emgrid.com.au](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS07

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## Safety Data Sheet according to WHS Regulations

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Revision: 13.04.2020

Trade name: **EPO-FIX EMBEDDING RESIN**

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- **Signal word** Warning
- **Hazard-determining components of labelling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves / eye protection / face protection.  
IF ON SKIN: Wash with plenty of water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
Specific treatment (see on this label).  
If eye irritation persists: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

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

- **Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	>50- $\leq$ 100%
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	>25- $\leq$ 50%

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

### 4 First Aid Measures

- **Description of first aid measures**
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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## Safety Data Sheet according to WHS Regulations

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**Trade name: EPO-FIX EMBEDDING RESIN**

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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 fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.

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## Safety Data Sheet according to WHS Regulations

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Trade name: **EPO-FIX EMBEDDING RESIN**

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- **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 and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

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

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

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

### 9 Physical and Chemical Properties

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

<b>Form:</b>	Liquid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not determined.
- **pH-value:** Not determined.
- **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Undetermined.
- **Flash point:** 177 °C
- **Flammability (solid, gas):** Not applicable.
- **Decomposition temperature:** Not determined.

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## Safety Data Sheet according to WHS Regulations

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Trade name: **EPO-FIX EMBEDDING RESIN**

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· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	1.1 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

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

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant

AU

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# Safety Data Sheet

## according to WHS Regulations

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Trade name: **EPO-FIX EMBEDDING RESIN**

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### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 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.

### 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>	<p style="text-align: center;">UN3082</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> </ul>	<p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	<p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p>
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p>

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Trade name: **EPO-FIX EMBEDDING RESIN**

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· **Transport hazard class(es)**· **ADG, IMDG, IATA**· **Class**

9 Miscellaneous dangerous substances and articles.

· **Label**

9

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

III

· **Environmental hazards:**· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADG):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

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

90

· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

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

Not applicable.

· **Transport/Additional information:**· **ADG**· **Limited quantities (LQ)**

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**

-

· **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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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## according to WHS Regulations

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Trade name: **EPO-FIX EMBEDDING RESIN**

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

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

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

Wash thoroughly after handling.

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

Wear protective gloves / eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

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

Continue rinsing.

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category E2** Hazardous to the Aquatic Environment

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

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 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: EPO-FIX EMBEDDING RESIN**

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*VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Skin Sens. 1: Skin sensitisation – Category 1*

AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/13/2020

Reviewed on 04/13/2020

### 1 Identification

- **Product identifier**
- **Trade name:** EPO-FIX EMBEDDING RESIN
- **Article number:** 1232-A, 1232-R
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: info@emsdiasum.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 Hazard identification

- **Classification of the substance or mixture**



GHS07

- Skin Irritation - Category 2 H315 Causes skin irritation.
- Eye Irritation - Category 2A H319 Causes serious eye irritation.
- Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
 oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.
- **Precautionary statements**  
 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin: Wash with plenty of water.

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

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**Trade name: EPO-FIX EMBEDDING RESIN**

(Contd. of page 1)

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

Continue rinsing.

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
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:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)	30-60% w/w *
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	15-40% w/w *

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

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

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

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

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

· **After eye contact:**

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

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

· **Information for doctor:**

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

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

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

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

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**Trade name: EPO-FIX EMBEDDING RESIN**

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 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: **EPO-FIX EMBEDDING RESIN**

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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:**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

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

· **Flash point:** 177 °C

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

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

· **Vapor pressure:** Not determined.

· **Density at 20 °C:** 1.1 g/cm<sup>3</sup>

· **Relative density** Not determined.

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# Safety Data Sheet

## according to HPR, Schedule 1

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Reviewed on 04/13/2020

Trade name: **EPO-FIX EMBEDDING RESIN**

(Contd. of page 4)

· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

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

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **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.

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## Safety Data Sheet

### according to HPR, Schedule 1

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Trade name: **EPO-FIX EMBEDDING RESIN**

(Contd. of page 5)

- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (Self-assessment): hazardous for water*  
*Do not allow product to reach ground water, water course or sewage system.*  
*Danger to drinking water if even small quantities leak into the ground.*  
*Also poisonous for fish and plankton in water bodies.*  
*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.

### 14 Transport information

- |                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT/TDG</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                 | <p>Void<br/>UN3082</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT/TDG</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>Void<br/>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))<br/>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT<br/>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT/TDG (Transport dangerous goods):</b></li> <li>· <b>Class</b></li> </ul>             | <p>Void</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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# Safety Data Sheet

## according to HPR, Schedule 1

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Trade name: **EPO-FIX EMBEDDING RESIN**

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· **ADR, IMDG, IATA**

· **Class** 9 Miscellaneous dangerous substances and articles  
 · **Label** 9

· **Packing group** Void  
 · **DOT/TDG** Void  
 · **ADR, IMDG, IATA** III

· **Environmental hazards:**  
 · **Marine pollutant:** Symbol (fish and tree)  
 · **Special marking (ADR):** Symbol (fish and tree)  
 · **Special marking (IATA):** Symbol (fish and tree)

· **Special precautions for user** Warning: Miscellaneous dangerous substances and articles  
 · **Hazard identification number (Kemler code):** 90  
 · **EMS Number:** F-A,S-F  
 · **Stowage Category** A

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

· **Transport/Additional information:**

· **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)** 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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT  $\leq$  700)), 9, III

### 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):**

None of the ingredients is listed.

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

All components have the value ACTIVE.

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/13/2020

Reviewed on 04/13/2020

**Trade name: EPO-FIX EMBEDDING RESIN**

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- **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%)**

None of the ingredients is listed.

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

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ) oxirane, mono[(C12-14-alkyloxy)methyl] derivs

- **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

- **Precautionary statements**

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

Wash thoroughly after handling.

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

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

If on skin: Wash with plenty of water.

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

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

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 the latest revision of the safety data sheet** 04/13/2020 / -

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Printing date 13.04.2020

Revision: 13.04.2020

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

- **Product identifier**
- **Trade name:** EPO-FIX EMBEDDING RESIN
- **Article number:** 1232-A, 1232-R
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazards identification

- **Classification of the substance or mixture**



environment

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



Skin Irrit. 2      H315 Causes skin irritation.  
Eye Irrit. 2A      H319 Causes serious eye irritation.  
Skin Sens. 1      H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS07    GHS09

- **Signal word** Warning

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

- **Hazard statements**

Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.

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# Safety data sheet

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

Printing date 13.04.2020

Revision: 13.04.2020

Trade name: **EPO-FIX EMBEDDING RESIN**

(Contd. of page 1)

Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

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

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

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

Continue rinsing.

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

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:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

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

### 4 First aid measures

· **Description of first aid measures**

· **After inhalation:**

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

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

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

· **After eye contact:**

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

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

· **Information for doctor:**

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

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

No further relevant information available.

### 5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

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

(Contd. on page 3)

# Safety data sheet

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

Printing date 13.04.2020

Revision: 13.04.2020

**Trade name: EPO-FIX EMBEDDING RESIN**

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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 fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 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.

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**Safety data sheet**  
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Trade name: **EPO-FIX EMBEDDING RESIN**

(Contd. of page 3)

· **Protection of hands:**

Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**

Tightly sealed goggles

## 9 Physical and chemical properties

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

Form:	Liquid
Colour:	Light yellow
Odour:	Odourless
Odour threshold:	Not determined.

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

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

· **Flash point:** 177 °C· **Flammability (solid, gas):** Not applicable.· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Product is not selfigniting.· **Explosive properties:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure:** Not determined.· **Density at 20 °C:** 1.1 g/cm<sup>3</sup>· **Relative density** Not determined.

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· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

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

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish

(Contd. on page 6)

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

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Trade name: **EPO-FIX EMBEDDING RESIN**



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- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
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.

### 14 Transport information

- |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                 | <p align="center">UN3082</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, 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>                                                               | <p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                             | <p align="center">III</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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**Safety data sheet**  
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**Trade name: EPO-FIX EMBEDDING RESIN**

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<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	<p>Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	<p>Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 -</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <math>\leq</math> 700)), 9, III</p>

## 15 Regulatory information

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



GHS07 GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700)  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.

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

Printing date 13.04.2020

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**Trade name: EPO-FIX EMBEDDING RESIN**

(Contd. of page 7)

*Toxic to aquatic life with long lasting effects.*

· **Precautionary statements**

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

*Avoid release to the environment.*

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

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

*Continue rinsing.*

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

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category E2** Hazardous to the Aquatic Environment

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

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 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.*

· **Relevant phrases**

*H315 Causes skin irritation.*

*H317 May cause an allergic skin reaction.*

*H319 Causes serious eye irritation.*

*H411 Toxic to aquatic life with long lasting effects.*

· **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)*

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

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

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

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

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

*Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

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

Printing date 13.04.2020

Revision: 13.04.2020

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

- **1.1 Product identifier**
- **Trade name:** EPO-FIX EMBEDDING RESIN
- **Article number:** 1232-A, 1232-R
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

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



GHS09 environment

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



GHS07

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

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



GHS07    GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**  
H315 Causes skin irritation.

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# Safety data sheet

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

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**Trade name: EPO-FIX EMBEDDING RESIN**

(Contd. of page 1)

*H319 Causes serious eye irritation.**H317 May cause an allergic skin reaction.**H411 Toxic to aquatic life with long lasting effects.***· Precautionary statements***P261 Avoid breathing dust/fume/gas/mist/vapours/spray.**P273 Avoid release to the environment.**P280 Wear protective gloves / eye protection / face protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P333+P313 If skin irritation or rash occurs: Get medical advice/attention.**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: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

**· Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· After inhalation:**

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

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

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

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

**· After swallowing:** If symptoms persist consult doctor.**· 4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.**· 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****· 5.1 Extinguishing media****· Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**· 5.2 Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

# Safety data sheet

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

Printing date 13.04.2020

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Trade name: **EPO-FIX EMBEDDING RESIN**

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 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.

(Contd. on page 4)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 13.04.2020

Revision: 13.04.2020

Trade name: EPO-FIX EMBEDDING RESIN

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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

## SECTION 9: Physical and chemical properties

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

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Light yellow
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.

· <b>pH-value:</b>	Not determined.
--------------------	-----------------

· **Change in condition**

· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Initial boiling point and boiling range:</b>	Undetermined.

· <b>Flash point:</b>	177 °C
-----------------------	--------

· <b>Flammability (solid, gas):</b>	Not applicable.
-------------------------------------	-----------------

· <b>Decomposition temperature:</b>	Not determined.
-------------------------------------	-----------------

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
-------------------------------------	------------------------------

· <b>Explosive properties:</b>	Product does not present an explosion hazard.
--------------------------------	-----------------------------------------------

· **Explosion limits:**

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

· <b>Vapour pressure:</b>	Not determined.
---------------------------	-----------------

· <b>Density at 20 °C:</b>	1.1 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.

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· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
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** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic for aquatic organisms*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

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

## SECTION 14: Transport information

- |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                 | <p>UN3082</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                | <div style="display: flex; align-items: center; gap: 10px;">   </div>                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>                                                                    | <p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code	3 -
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 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  
H315 Causes skin irritation.

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*H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H411 Toxic to aquatic life with long lasting effects.***· Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

GB

# 化学品安全技术说明书

据根根据据根T 16483-2008, GB/T 17519-2013

打印日期 2020.04.13

在 2020.04.13 审核

## 1 化学品及企业标识

- **产品识别者**
- **化学品中文名称/英文名称/化学品俗名或商品名:** EPO-FIX EMBEDDING RESIN
- **商品编号:** 1232-A, 1232-R
- **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: info@emsdiasum.com  
www.emsdiasum.com
- **可获取更多资料的部门:** Product safety department
- **紧急联系电话号码:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 危险性概述

### · 紧急情况概述:

浅黄色，液体，造成皮肤刺激。造成严重眼刺激。可能导致皮肤过敏反应。对水生生物有毒并具有长期持续影响。

### · GHS危险性类别



环境

对水环境的危害(慢性) 第2类 H411 对水生生物有毒并具有长期持续影响



皮肤腐蚀/刺激 第2类 H315 造成皮肤刺激  
严重眼损伤/眼刺激 类别2A H319 造成严重眼刺激  
敏化(皮肤) 第1类 H317 可能导致皮肤过敏反应

### · 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。

图示图示图示



GHS07



GHS09

名称名称名称

### · 标签上辨别危险的成份:

4,4'-(1-甲基亚乙基)双苯酚与(氯甲基)环氧乙烷的聚合物 (>50-≤100 %)  
C12-14-烷基缩水甘油醚 (>25-≤50 %)

### · 危险字句

造成皮肤刺激

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造成严重眼刺激

可能导致皮肤过敏反应

对水生生物有毒并具有长期持续影响

## · 警戒字句

## · 预防措施

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾

避免释放到环境中

戴防护手套/防护眼罩/防护面具

## · 事故响应

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

如发生皮肤刺激或皮疹:求医/就诊

## · 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

## · 其他有害性

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

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

### 3 成分/组成信息

## · 混合物

描述描述描述以下含有无害添加剂的成分组成的混合物

## · 危险的成分:

25068-38-6	4,4'-(1-甲基亚乙基)双苯酚与(氯甲基)环氧乙烷的聚合物 ⚠ 对水环境的危害(慢性) 第2类, H411; ⚠ 皮肤腐蚀/刺激 第2类, H315; 严重眼睛损伤/眼睛刺激性 第2类, H319; 敏化(皮肤) 第1类, H317	>50-≤100%
68609-97-2	C12-14-烷基缩水甘油醚 ⚠ 皮肤腐蚀/刺激 第2类, H315; 敏化(皮肤) 第1类, H317	>25-≤50%

### 4 急救措施

## · 应急措施要领

吸入吸入吸入

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。如果症状仍然持续,请咨询医生。

食入食入食入如果症状仍然持续,请咨询医生。

## · 给医生的资料:

· 最重要的急慢性症状及其影响 无相关详细资料。

· 需要及时的医疗处理及特别处理的症状 无相关详细资料。

### 5 消防措施

## · 灭火方法

· 灭火的方法和灭火剂: 使用适合四周环境的灭火措施。

· 特别危险性 无相关详细资料。

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- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施.

## 6 泄漏应急处理

- **保护措施** 没有要求.
- **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.  
切勿让其进入下水道/水面或地下水.
- **密封及净化方法和材料:**  
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).  
确保有足够的通风装置.
- **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** 储存 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.
- **有关火灾及防止爆炸的资料:** 不需特别的措施.
- **混合危险性等安全储存条件**
- **储存** 储存 储存  
· **储存库和容器须要达到的要求:** 没有特别的要求.  
· **有关使用一个普通的储存设施来储存的资料:** 不需要.  
· **有关储存条件的更多资料:** 将容器密封.  
· **具体的最终用户** 无相关详细资料.

## 8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项.
- **控制变数**
- **在工作场需要监控的限值成分** 该产品不含任何必须在工作间受到监视的重要价值的材料.
- **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.

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**· 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

**· 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**

外观外观外观

形状形状形状	液体
颜色颜色颜色	浅黄色
气味气味气味	无气味的
· 嗅觉阈限	未决定.

· pH值: 未决定.

**· 条件的更改**

熔点熔点熔点	未确定的
沸点沸点和沸点和沸点	未确定的

闪点闪点闪点 177 °C

· 可燃性 (固体、气体): 不适用的

· 分解温度: 未决定.

· 自燃温度: 该产品是不自燃的

· 爆炸的危险性: 该产品并没有爆炸的危险

**· 爆炸极限:**

较低较低较低	未决定.
较高较高较高	未决定.

· 蒸气压: 未决定.

密度密度密度0 °C: 1.1 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.

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(在 4 页继续)

· **溶解性**  
水: 不能拌和的或难以拌和

· **辛醇/水分配系数**: 未决定.

· **黏性**:  
动态动态动态 未决定.  
运动运动运动的 未决定.

· **溶剂成份**:

· **固体成份**: 0.0 %

· **其他信息**: 无相关详细资料。

## 10 稳定性和反应性

· **稳定性**: 无相关详细资料。

· **稳定性**: 稳定

· **分解温度**: 如果遵照规格使用则不会分解。

· **有害性**: 未有已知的危险反应。

· **避免条件**: 无相关详细资料。

· **不相容的物质**: 无相关详细资料。

· **危险的分解产物**: 未知有危险的分解产品。

## 11 毒理学信息

· **对毒性学影响的信息**

· **急性毒性**:

· **主要刺激影响**:

· **皮肤刺激**: 刺激皮肤和粘膜。

· **在眼睛上面**: 刺激的影响。

· **致敏性**: 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:

· 刺激性的

## 12 生态学信息

· **急性毒性**:

· **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。

· **环境习性**:

· **潜在的累积性**: 无相关详细资料。

· **土壤移动性**: 无相关详细资料。

· **生态毒性的影响**:

· **备注**: 对鱼类有毒

· **额外的生态学资料**:

· **总括注解**:

水危害级别 2 (德国规例) (通过名单进行自我评估): 对水是危险的

不要让该产品接触地下水、水道或污水系统。

即使是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。

(在 6 页继续)



# 化学品安全技术说明书

据根据据据T 16483-2008, GB/T 17519-2013

打印日期 2020.04.13

在 2020.04.13 审核

化学品中文名称: 环氧树脂 EPO-FIX EMBEDDING RESIN

(在 5 页继续)

对水中的有机物有毒。  
 · PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果  
 · PBT(残留性、生物浓缩性、毒性物质) 不适用的  
 · vPvB(高残留性、高生物浓缩性物质): 不适用的  
 其他其他其他用用相关详细资料。

## 13 废弃处置

· **废弃处置方法**  
 建议建议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:**  
 建议建议建议根据官方的规章来丢弃。

## 14 运输信息

联合国危险货物编号(UN号)

· ADR, IMDG, IATA UN3082

适当适当船名

· ADR 3082 危害环境的液态物质, 未另作规定的 (4,4'-(1-甲基亚乙基)双苯酚与(氯甲基)环氧乙烷的聚合物)  
 · IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT  
 · IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

运输运输危险等级

· ADR, IMDG, IATA



· **级别** 9 雜項危險物質和物品, 包括危害環境物質  
 标签标签标签 9

· **包装组别**

· ADR, IMDG, IATA III

· **危害环境:**  
 · **海运污染物质物质** 象征符号 (鱼和树)  
 特别特别特别 (ADR): 象征符号 (鱼和树)  
 特别特别特别 (IATA): 象征符号 (鱼和树)

· **用户特别预防措施**

· **危险编码:** 警告: 雜項危險物質和物品, 包括危害環境物質  
 · **欧洲代码** 90  
 · **欧洲代码** F-A,S-F

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(在 6 页继续)

· Stowage Category	A
· MARPOL73/78(针对船舶引起的海洋污染预防协议附件书)根据根据C国际国际船舶货物编码)值大量大量运送运送运送	不适用的
运输运输额外的资料:	
· 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
· 标准标准规定	UN 3082 危害环境的液态物质, 未另作规定的 (4,4'-(1-甲基亚乙基)双苯酚与(氯甲基)环氧乙烷的聚合物), 9, III

## 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
- 危险化学品安全管理条例

- 危险化学品目录

没有列出成份

- 新化学物质环境管理办法

### 国家环境优先化学物质名录

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。

图示图示



GHS07 GHS09

名称名称

- 标签上辨别危险的成份:  
4,4'-(1-甲基亚乙基)双苯酚与(氯甲基)环氧乙烷的聚合物 (>50-≤100 %)  
C12-14-烷基缩水甘油醚 (>25-≤50 %)

- 危险字句

造成皮肤刺激  
造成严重眼刺激  
可能导致皮肤过敏反应  
对水生生物有毒并具有长期持续影响

- 警戒字句

- 预防措施

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾  
避免释放到环境中

(在 8 页继续)

# 化学品安全技术说明书

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打印日期 2020.04.13

在 2020.04.13 审核

化学品中文名称: 环氧树脂  
 化学品英文名称: 环氧树脂  
 化学品俗名或商品名: EPO-FIX EMBEDDING RESIN

(在 7 页继续)

戴防护手套/防护眼罩/防护面具

**事故响应**

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗  
 如发生皮肤刺激或皮疹:求医/就诊

**废弃处置**

处置内装物/容器按照地方/区域/国家/国际规章

· **化学物质安全性评价:** 尚未进行化学物质安全性评价

## 16 其他信息

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

**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)

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation – Category 2

严重眼损伤/眼睛刺激性 第2类: Serious eye damage/eye irritation – Category 2

严重眼损伤/眼刺激 类别2A: Serious eye damage/eye irritation – Category 2A

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

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

CN

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

Datum vydání: 13.04.2020

Revize: 13.04.2020

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

- **1.1 Identifikátor výrobku**
- **Obchodní označení: EPO-FIX EMBEDDING RESIN**
- **Číslo výrobku: 1232-A, 1232-R**
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



GHS09 životní prostředí

Aquatic Chronic 2 H411 Toxický pro vodní organismy, s dlouhodobými účinky.



GHS07

Skin Irrit. 2 H315 Dráždí kůži.  
Eye Irrit. 2 H319 Způsobuje vážné podráždění očí.  
Skin Sens. 1 H317 Může vyvolat alergickou kožní reakci.

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



GHS07



GHS09

- **Signální slovo** Varování
- **Nebezpečné komponenty k etiketování:**  
epoxidová pryskyřice z Bisfenolu A a epichlorhydrinu průměrná molekulová hmotnost  $\leq 700$   
(alkoxymethyl)oxiran (alkyl C12-C14)
- **Standardní věty o nebezpečnosti**  
H315 Dráždí kůži.  
H319 Způsobuje vážné podráždění očí.

(pokračování na straně 2)

# Bezpečnostní list

## podle 1907/2006/ES, Článek 31

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**Obchodní označení: EPO-FIX EMBEDDING RESIN**

(pokračování strany 1)

H317 Může vyvolat alergickou kožní reakci.

H411 Toxický pro vodní organismy, s dlouhodobými účinky.

**· Pokyny pro bezpečné zacházení**

P261 Zamezte vdechování prachu/dýmu/plynu/mlhy/par/aerosolů.

P273 Zabraňte uvolnění do životního prostředí.

P280 Používejte ochranné rukavice / ochranné brýle / obličejový štít.

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.

P333+P313 Při podráždění kůže nebo vyrážce: Vyhledejte lékařskou pomoc/ošetření.

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: 25068-38-6 NLP: 500-033-5	epoxidová pryskyřice z Bisfenolu A a epichlorhydrinu průměrná molekulová hmotnost $\leq 700$ ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	(alkoxymethyl)oxiran (alkyl C12-C14) ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

**· Dodatečná upozornění:** Znění uvedených údajů o nebezpečnosti látky je uvedeno v kapitole 16.**ODDÍL 4: Pokyny pro první pomoc****· 4.1 Popis první pomoci****· Při nadýchání:**

Bohatý přívod čerstvého vzduchu a pro jistotu vyhledat lékaře.

Při bezvědomí uložit a přepravit ve stabilní poloze na boku.

**· Při styku s kůží:** Ihned omýt vodou a mýdlem a dobře opláchnout.**· Při zasažení očí:**

Oči s otevřenými víčky vyplachovat po více minut proudem tekoucí vody. Při přetrvávajících potížích se poradit s lékařem.

**· Při požití:** Při přetrvávajících potížích konzultovat s lékařem.**· 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:** Způsob hašení přizpůsobit podmínkám v okolí.**· 5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** Další relevantní informace nejsou k dispozici.

(pokračování na straně 3)

# Bezpečnostní list

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**Obchodní označení: EPO-FIX EMBEDDING RESIN**

(pokračování strany 2)

- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** Nejsou nutná žádná zvláštní opatření.

### ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy** Není nutné.
- **6.2 Opatření na ochranu životního prostředí:**  
Při vniknutí do kanalizace nebo vodního toku informovat příslušné orgány.  
Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**  
Sebrat s materiály, vážícími kapaliny (písek, šterkový písek, pojidla kyselin, univerzální pojidla, piliny).  
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:** Nejsou nutná žádná zvláštní opatření.
- **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.
- **7.3 Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici.

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

- **Technická opatření:** Žádné další údaje, viz bod 7.
- **8.1 Kontrolní parametry**
- **Kontrolní parametry:**  
Produkt neobsahuje žádná relevantní množství látek, u kterých se musí kontrolovat hraniční hodnoty na pracovišti.
- **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 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.

(pokračování na straně 4)

# Bezpečnostní list

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Obchodní označení: **EPO-FIX EMBEDDING RESIN**

(pokračování strany 3)

· **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: Tekutina

Barva: Světležlutá

· **Zápach:** Bez zápachu

· **Prahová hodnota zápachu:** Není určeno.

· **Hodnota pH:** Není určeno.

· **Změna stavu**

Bod tání/bod tuhnutí: Není určeno.

Počáteční bod varu a rozmezí bodu varu: Není určeno.

· **Bod vzplanutí:** 177 °C

· **Hořlavost (pevné látky, plyny):** Nedá se použít.

· **Teplota rozkladu:** Není určeno.

· **Teplota samovznícení:** Produkt není samozápalný.

· **Výbušné vlastnosti:** U produktu nehrozí nebezpečí exploze.

· **Meze výbušnosti:**

Dolní mez: Není určeno.

Horní mez: Není určeno.

· **Tlak páry:** Není určeno.

· **Hustota při 20 °C:** 1,1 g/cm<sup>3</sup>

· **Relativní hustota** Není určeno.

· **Hustota páry:** Není určeno.

· **Rychlost odpařování** Není určeno.

(pokračování na straně 5)

# Bezpečnostní list

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Obchodní označení: **EPO-FIX EMBEDDING RESIN**

(pokračování strany 4)

· <b>Rozpuštnost ve / směšitelnost s vodě:</b>	Vůbec nemísitelná nebo jen málo 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>VOC (EC)</b>	0,00 %
<b>Obsah netěkavých složek:</b>	0,0 %
· <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.
- **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.
- **Primární dráždivé účinky:**
- **Žíravost/dráždivost pro kůži**  
Dráždí kůži.
- **Vážné poškození očí / podráždění očí**  
Způsobuje vážné podráždění očí.
- **Senzibilizace dýchacích cest / senzibilizace kůže**  
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**  
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **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.

(pokračování na straně 6)



# Bezpečnostní list

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- **12.3 Bioakumulační potenciál** Další relevantní informace nejsou k dispozici.
- **12.4 Mobilita v půdě** Další relevantní informace nejsou k dispozici.
- **Ekotoxické účinky:**
- **Poznámka:** Jedovatý pro ryby.
- **Další ekologické údaje:**
- **Všeobecná upozornění:**  
Třída ohrožení vody 2 (Samozařazení): ohrožuje vodu  
Nesmí vniknout do spodní vody, povodí nebo kanalizace.  
Ohrožuje pitnou vodu už při proniknutí malého množství do zeminy.  
V povodích je také jedovatá pro ryby a plankton.  
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.

### 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.

### ODDÍL 14: Informace pro přepravu

- **14.1 UN číslo**
- **ADR, IMDG, IATA** UN3082

- **14.2 Oficiální (OSN) pojmenování pro přepravu**
- **ADR**

3082 LÁTKA OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ, KAPALNÁ, J.N. (epoxidová pryskyřice z Bisfenolu A a epichlorhydrinu průměrná molekulová hmotnost ≤ 700)  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

- **IMDG**

- **IATA**

- **14.3 Třída/třídy nebezpečnosti pro přepravu**

- **ADR, IMDG, IATA**



- **třída**
- **Etiketa**

9 Různé nebezpečné látky a předměty  
9

(pokračování na straně 7)

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· 14.4 Obalová skupina · ADR, IMDG, IATA	III
· 14.5 Nebezpečnost pro životní prostředí: · Látka znečišťující moře: · Zvláštní označení (ADR): · Zvláštní označení (IATA):	Symbol (ryba a strom) Symbol (ryba a strom) Symbol (ryba a strom)
· 14.6 Zvláštní bezpečnostní opatření pro uživatele · Identifikační číslo nebezpečnosti (Kemlerovo číslo): · EMS-skupina: · Stowage Category	Varování: Různé nebezpečné látky a předměty 90 F-A,S-F A
· 14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC	Nedá se použít.
· Přeprava/další údaje:	
· ADR · Omezené množství (LQ) · Vyňatá množství (EQ)  · Přepravní kategorie · Kód omezení pro tunely:	5L Kód: E1 Nejvyšší čisté množství na vnitřní obal: 30 ml Nejvyšší čisté množství na vnější obal: 1000 ml 3 -
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 LÁTKA OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ, KAPALNÁ, J.N. (EPOXIDOVÁ PRYSKYŘICE Z BISFENOLU A A EPICHLORHYDRINU PRŮMĚRNÁ MOLEKULOVÁ HMOTNOST $\leq 700$ ), 9, III

### 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** Žádná z obsažených látek není na seznamu.
- Kategorie Seveso E2 Nebezpečnost pro vodní prostředí
- Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 200 t
- Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 500 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.

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**· Relevantní věty***H315 Dráždí kůži.**H317 Může vyvolat alergickou kožní reakci.**H319 Způsobuje vážné podráždění očí.**H411 Toxický pro vodní organismy, s dlouhodobými účinky.***· 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**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Irrit. 2: Žíravost/dráždivost pro kůži – Kategorie 2**Eye Irrit. 2: Vážné poškození očí / podráždění očí – Kategorie 2**Skin Sens. 1: Senzibilizace kůže – Kategorie 1**Aquatic Chronic 2: Nebezpečnost pro vodní prostředí - dlouhodobá nebezpečnost pro vodní prostředí – Kategorie 2*

CZ

# Veiligheidsinformatieblad

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

- **1.1 Productidentificatie**
- **Handelsnaam:** EPO-FIX EMBEDDING RESIN
- **Artikelnummer:** 1232-A, 1232-R
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: [info@aurion.nl](mailto:info@aurion.nl)
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

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



GHS09 milieu

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



GHS07

Skin Irrit. 2            H315 Veroorzaakt huidirritatie.  
Eye Irrit. 2            H319 Veroorzaakt ernstige oogirritatie.  
Skin Sens. 1           H317 Kan een allergische huidreactie veroorzaken.

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

(Vervolg op blz. 2)

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(Vervolg van blz. 1)

### · Gevarenpictogrammen



GHS07 GHS09

### · Signaalwoord Waarschuwing

#### · Gevaaraanduidende componenten voor de etikettering:

reactieproduct: bisfenol-A-epichloorhydrine epoxyhars (gemiddeld molecuulgewicht  $\leq 700$ )  
oxiraan, mono[(C12-14-alkoxy)methyl]-derivaten

#### · Gevarenaanduidingen

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

H317 Kan een allergische huidreactie veroorzaken.

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

#### · Veiligheidsaanbevelingen

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

P273 Voorkom lozing in het milieu.

P280 Beschermende handschoenen / oogbescherming / gelaatsbescherming dragen.

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

P333+P313 Bij huidirritatie of uitslag: een arts raadplegen.

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: 25068-38-6 NLP: 500-033-5	reactieproduct: bisfenol-A-epichloorhydrine epoxyhars (gemiddeld molecuulgewicht $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxiraan, mono[(C12-14-alkoxy)methyl]-derivaten ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

#### · Aanvullende gegevens:

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

## RUBRIEK 4: Eerstehulpmaatregelen

### · 4.1 Beschrijving van de eerstehulpmaatregelen

#### · Na het inademen:

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.

(Vervolg op blz. 3)

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- **Na oogcontact:**  
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**  
Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**  
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.
- **6.2 Milieuvorzorgsmaatregelen:**  
Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.  
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:**  
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.  
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**  
Informatie inzake veilig gebruik - zie hoofdstuk 7.  
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.  
Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

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

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

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

(Vervolg op blz. 4)

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- **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 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 chemicaliën mengsel afgegeven worden.*

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

- **Handschoenmateriaal**

*De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.*

- **Doordringingstijd van het handschoenmateriaal**

*De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.*

- **Oogbescherming:**



Nauw aansluitende veiligheidsbril

## RUBRIEK 9: Fysische en chemische eigenschappen

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

- **Algemene gegevens**

- **Voorkomen:**

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Lichtgeel
<b>Geur:</b>	Reukloos
<b>Geurdrempelwaarde:</b>	Niet bepaald.

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

- **Toestandsverandering**

**Smelt-/vriespunt:** Niet bepaald.

(Vervolg op blz. 5)



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<b>Beginkookpunt en kooktraject:</b>	Niet bepaald.
· <b>Vlampunt:</b>	177 °C
· <b>Ontvlambaarheid (vast, gas):</b>	Niet bruikbaar.
· <b>Ontledingstemperatuur:</b>	Niet bepaald.
· <b>Zelfontbrandingstemperatuur:</b>	Het produkt ontbrandt niet uit zichzelf.
· <b>Ontploffingseigenschappen:</b>	Het produkt is niet ontploffingsgevaarlijk.
· <b>Ontploffingsgrenzen:</b>	
<b>Onderste:</b>	Niet bepaald.
<b>Bovenste:</b>	Niet bepaald.
· <b>Dampspanning:</b>	Niet bepaald.
<b>Dichtheid bij 20 °C:</b>	1,1 g/cm <sup>3</sup>
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bepaald.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Niet resp. gering mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch:</b>	Niet bepaald.
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>VOC (EG)</b>	0,00 %
<b>Gehalte aan vaste bestanddelen:</b>	0,0 %
· <b>9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

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

### RUBRIEK 11: Toxicologische informatie

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

(Vervolg op blz. 6)



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- **Sensibilisatie van de luchtwegen/de huid**  
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Ecotoxische effecten:**
- **Opmerking:** Giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): A(2) vergiftig voor in water levende organismen kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken  
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water  
Niet lozen in grondwater, in oppervlaktewater of in riolering.  
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.  
In oppervlaktewater ook giftig voor vissen en plankton.  
giftig voor in het water levende organismen
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

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

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

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN3082
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 3082 MILIEUGEVAARLIJKE VLOEISTOF, N.E.G. (reactieproduct: bisfenol-A-epichloorhydrine epoxyhars (gemiddeld molecuulgewicht ≤ 700))
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-

(Vervolg op blz. 7)

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· **IATA** (epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ))

· 14.3 Transportgevaar(n)

· ADR, IMDG, IATA



· klasse  
· Etiket

9 Diverse gevaarlijke stoffen en voorwerpen  
9

· 14.4 Verpakkingsgroep:

· ADR, IMDG, IATA

III

· 14.5 Milieugevaren:

· Marine pollutant:

Symbool (vis en boom)

· Bijzondere kenmerking (ADR):

Symbool (vis en boom)

· Bijzondere kenmerking (IATA):

Symbool (vis en boom)

· 14.6 Bijzondere voorzorgen voor de gebruiker

· Gevaarsidentificatienummer (Kemler-getal):

Waarschuwing: Diverse gevaarlijke stoffen en voorwerpen  
90

· EMS-nummer:

F-A,S-F

· Stowage Category

A

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

Niet bruikbaar.

· Transport/verdere gegevens:

· ADR

· Beperkte hoeveelheden (LQ)

5L

· Uitgezonderde hoeveelheden (EQ)

Code: E1

Grootste netto hoeveelheid per binnenverpakking: 30 ml

Grootste netto hoeveelheid per buitenverpakking: 1000 ml

· Vervoerscategorie

3

· Tunnelbeperkingscode

-

· 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

· VN "Model Regulation":

UN 3082 MILIEUGEVAARLIJKE VLOEISTOF, N.E.G.  
(REACTIEPRODUCT: BISFENOL-A-  
EPICHOORHYDRINE EPOXYHARS (GEMIDDELD  
MOLECUULGEWICHT  $\leq 700$ )), 9, III

(Vervolg op blz. 8)

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## RUBRIEK 15: Regelgeving

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

#### · SZW-lijst van kankerverwekkende stoffen

geen der bestanddelen staat op de lijst.

#### · SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

#### · Lijst van Potentieel Zeer Zorgwekkende Stoffen

alle bestanddelen staan op de lijst.

#### · Richtlijn 2012/18/EU

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

· **Seveso-categorie E2** Gevaar voor het aquatisch milieu

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

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen** 500 t

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

#### · Nationale voorschriften:

##### · Gevaarklasse v. water:

Waterbezwaarlijkheid (NL): A(2) vergiftig voor in water levende organismen kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken

· **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

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

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

#### · 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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(Vervolg van blz. 8)

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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

- **1.1 Identificateur de produit**
- **Nom du produit:** EPO-FIX EMBEDDING RESIN
- **Code du produit:** 1232-A, 1232-R
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

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



GHS09 environnement

Aquatic Chronic 2 H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.  
Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.  
Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

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



GHS07 GHS09

- **Mention d'avertissement** Attention
- **Composants dangereux déterminants pour l'étiquetage:**  
produit de réaction: bisphénol-A-épichlorhydrine résines époxydiques (poids moléculaire moyen  $\leq 700$ )  
oxiranne, dérivés mono[(alcoolates en C12-14)méthyl]
- **Mentions de danger**  
H315 Provoque une irritation cutanée.  
H319 Provoque une sévère irritation des yeux.

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H317 Peut provoquer une allergie cutanée.

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

· **Conseils de prudence**

P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

P273 Éviter le rejet dans l'environnement.

P280 Porter des gants de protection / un équipement de protection des yeux / un équipement de protection du visage.

P305+P351+P338 **EN CAS DE CONTACT AVEC LES YEUX:** Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P333+P313 En cas d'irritation ou d'éruption cutanée: consulter un médecin.

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: 25068-38-6 NLP: 500-033-5	produit de réaction: bisphénol-A-épichlorhydrine résines époxydiques (poids moléculaire moyen $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxiranne, dérivés mono[(alcoolates en C12-14)méthyl] ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

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

### RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**

· **Après inhalation:**

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

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

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

· **Après contact avec les yeux:**

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

· **Après ingestion:** Si les troubles persistent, consulter un médecin.

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

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

Pas d'autres informations importantes disponibles.

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

· **5.1 Moyens d'extinction**

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

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- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

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

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.
- **6.2 Précautions pour la protection de l'environnement:**  
En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.  
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Assurer une aération suffisante.
- **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:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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

- **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:**  
Le produit ne contient pas en quantité significative des substances présentant des valeurs-seuil à surveiller par poste de travail.
- **Remarques supplémentaires:**  
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Équipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**  
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.  
Éviter tout contact avec les yeux et avec la peau.

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· **Protection respiratoire:**

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

· **Protection des mains:**



Gants de protection

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

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

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

· **Matériau des gants**

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

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

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

· **Protection des yeux:**



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

**Forme:** Liquide  
**Couleur:** Jaune clair

· **Odeur:** Inodore

· **Seuil olfactif:** Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

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

**Point initial d'ébullition et intervalle d'ébullition:** Non déterminé.

· **Point d'éclair** 177 °C

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

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

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

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

· **Limites d'explosion:**

**Inférieure:** Non déterminé.

**Supérieure:** Non déterminé.

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· <b>Pression de vapeur:</b>	Non déterminé.
· <b>Densité à 20 °C:</b>	1,1 g/cm <sup>3</sup>
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Pas ou peu miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
· <b>Dynamique:</b>	Non déterminé.
· <b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
· <b>VOC (CE)</b>	0,00 %
· <b>Teneur en substances solides:</b>	0,0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

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

### RUBRIQUE 11: Informations toxicologiques

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

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· **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:** Toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**  
*Catégorie de pollution des eaux 2 (D) (Classification propre): polluant*  
*Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.*  
*Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.*  
*Dans les eaux, également toxique pour les poissons et le plancton.*  
*Toxique pour les organismes aquatiques.*
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

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

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

### RUBRIQUE 14: Informations relatives au transport

- |                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 Numéro ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                                     | <p>UN3082</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>3082 MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, LIQUIDE, N.S.A. (produit de réaction: bisphénol-A-épichlorhydrine résines époxydiques (poids moléculaire moyen ≤ 700))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |

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

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

· **ADR, IMDG, IATA**



· **Classe** 9 Matières et objets dangereux divers.  
 · **Étiquette** 9

· **14.4 Groupe d'emballage**

· **ADR, IMDG, IATA** III

· **14.5 Dangers pour l'environnement:**

· **Marine Pollutant:** Signe conventionnel (poisson et arbre)  
 · **Marquage spécial (ADR):** Signe conventionnel (poisson et arbre)  
 · **Marquage spécial (IATA):** Signe conventionnel (poisson et arbre)

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

· **Numéro d'identification du danger (Indice Kemler):** Attention: Matières et objets dangereux divers.  
 · **No EMS:** 90  
 · **Stowage Category** F-A,S-F  
 A

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

Non applicable.

· **Indications complémentaires de transport:**

· **ADR**

· **Quantités limitées (LQ)** 5L  
 · **Quantités exceptées (EQ)** Code: E1  
 Quantité maximale nette par emballage intérieur: 30 ml  
 Quantité maximale nette par emballage extérieur: 1000 ml  
 · **Catégorie de transport** 3  
 · **Code de restriction en tunnels** -

· **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

· **"Règlement type" de l'ONU:**

UN 3082 MATIÈRE DANGEREUSE DU POINT DE VUE DE L'ENVIRONNEMENT, LIQUIDE, N.S.A. (PRODUIT DE RÉACTION: BISPHÉNOL-A-ÉPICHLORHYDRINE RÉSINES ÉPOXYDIQUES (POIDS MOLÉCULAIRE MOYEN ≤ 700)), 9, III

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# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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**Nom du produit: EPO-FIX EMBEDDING RESIN**

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### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **Catégorie SEVESO E2** Danger pour l'environnement aquatique
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas** 200 t
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut** 500 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.

### 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**
- H315 Provoque une irritation cutanée.*
- H317 Peut provoquer une allergie cutanée.*
- H319 Provoque une sévère irritation des yeux.*
- H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.*
- **Acronymes et abréviations:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route*
- IMDG: International Maritime Code for Dangerous Goods*
- IATA: International Air Transport Association*
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
- EINECS: European Inventory of Existing Commercial Chemical Substances*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- VOC: Volatile Organic Compounds (USA, EU)*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2*
- Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2*
- Skin Sens. 1: Sensibilisation cutanée – Catégorie 1*
- Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2*

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# Sicherheitsdatenblatt

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

- **1.1 Produktidentifikator**
- **Handelsname:** EPO-FIX EMBEDDING RESIN
- **Artikelnummer:** 1232-A, 1232-R
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **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**



GHS09 Umwelt

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



GHS07

Skin Irrit. 2      H315 Verursacht Hautreizungen.  
 Eye Irrit. 2      H319 Verursacht schwere Augenreizung.  
 Skin Sens. 1      H317 Kann allergische Hautreaktionen verursachen.

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

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**Gefahrenpiktogramme**


GHS07 GHS09

**Signalwort Achtung**
**Gefahrbestimmende Komponenten zur Etikettierung:**

 Reaktionsprodukt: Bisphenol-A-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht  $\leq 700$ 

Oxiran, Mono[(C12-14-alkyloxy)methyl]derivate

**Gefahrenhinweise**

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H317 Kann allergische Hautreaktionen verursachen.

H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

**Sicherheitshinweise**

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

P273 Freisetzung in die Umwelt vermeiden.

P280 Schutzhandschuhe / Augenschutz / Gesichtsschutz tragen.

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

P333+P313 Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.

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: 25068-38-6 NLP: 500-033-5	Reaktionsprodukt: Bisphenol-A-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht $\leq 700$ ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	Oxiran, Mono[(C12-14-alkyloxy)methyl]derivate ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

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

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

**4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
**Nach Einatmen:**

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.

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- **Nach Augenkontakt:**  
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**  
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**  
Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:**  
Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.  
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

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

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### 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:**  
Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **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 und der Haut vermeiden.
- **Atemschutz:**  
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.  
Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**  
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.
- **Durchdringungszeit des Handschuhmaterials**  
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:**



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

- **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
- **Allgemeine Angaben**
- **Aussehen:**

<b>Form:</b>	Flüssigkeit
<b>Farbe:</b>	Hellgelb
<b>Geruch:</b>	Geruchlos

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· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert:	Nicht bestimmt.
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	Nicht bestimmt.
· Flammpunkt:	177 °C
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Das Produkt ist nicht selbstentzündlich.
· Explosive Eigenschaften:	Das Produkt ist nicht explosionsgefährlich.
· Explosionsgrenzen: Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.
· Dampfdruck:	Nicht bestimmt.
· Dichte bei 20 °C:	1,1 g/cm <sup>3</sup>
· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser:	Nicht bzw. wenig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität: Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt: VOC (EU)	0,00 %
Festkörpergehalt:	0,0 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

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

### ABSCHNITT 11: Toxikologische Angaben

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

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- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut**  
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**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Ökotoxische Wirkungen:**
- **Bemerkung:** Giftig für Fische.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 2 (Selbsteinstufung): deutlich wassergefährdend  
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.  
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.  
In Gewässern auch giftig für Fische und Plankton.  
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.

### ABSCHNITT 14: Angaben zum Transport

- **14.1 UN-Nummer**
- **ADR, IMDG, IATA** UN3082

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<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>	<p>3082 <b>UMWELTGEFÄHRDENDER STOFF, FLÜSSIG, N.A.G.</b> (Reaktionsprodukt: Bisphenol-A-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht <math>\leq 700</math>)</p> <p><b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</b> (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>)), <b>MARINE POLLUTANT</b></p> <p><b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</b> (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>))</p>
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**14.3 Transportgefahrenklassen**

- **ADR, IMDG, IATA**



- **Klasse** 9 Verschiedene gefährliche Stoffe und Gegenstände
- **Gefahrzettel** 9

**14.4 Verpackungsgruppe**

- **ADR, IMDG, IATA** III

**14.5 Umweltgefahren:**

- **Marine pollutant:** Symbol (Fisch und Baum)
- **Besondere Kennzeichnung (ADR):** Symbol (Fisch und Baum)
- **Besondere Kennzeichnung (IATA):** Symbol (Fisch und Baum)

**14.6 Besondere Vorsichtsmaßnahmen für den Verwender**

- **Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):** Achtung: Verschiedene gefährliche Stoffe und Gegenstände
- **EMS-Nummer:** 90
- **Stowage Category:** F-A,S-F
- **Stowage Category:** A

**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** -

- **IMDG**
- **Limited quantities (LQ)** 5L

(Fortsetzung auf Seite 8)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 13.04.2020

überarbeitet am: 13.04.2020

**Handelsname: EPO-FIX EMBEDDING RESIN**

(Fortsetzung von Seite 7)

<ul style="list-style-type: none"> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p><i>Code: E1</i></p> <p><i>Maximum net quantity per inner packaging: 30 ml</i></p> <p><i>Maximum net quantity per outer packaging: 1000 ml</i></p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p><i>UN 3082 UMWELTGEFÄHRDENDER STOFF, FLÜSSIG, N.A.G. (REAKTIONSPRODUKT: BISPHENOL-A-EPICHLORHYDRIN HARZE MIT DURCHSCHNITTLICHEM MOLEKULARGEWICHT ≤ 700), 9, III</i></p>

### ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **Seveso-Kategorie E2** Gewässergefährdend
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 200 t**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 500 t**
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3
- **Nationale Vorschriften:**
- **Wassergefährdungsklasse: WGK 2 (Selbsteinstufung):** deutlich 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**
- H315 Verursacht Hautreizungen.
- H317 Kann allergische Hautreaktionen verursachen.
- H319 Verursacht schwere Augenreizung.
- H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.
- **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)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2
- Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2
- Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1
- Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2

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

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** EPO-FIX EMBEDDING RESIN
- **Articolo numero:** 1232-A, 1232-R
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: [www.sichim.com](http://www.sichim.com)
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS09 ambiente

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



GHS07

Skin Irrit. 2            H315 Provoca irritazione cutanea.  
Eye Irrit. 2            H319 Provoca grave irritazione oculare.  
Skin Sens. 1           H317 Può provocare una reazione allergica cutanea.

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



GHS07



GHS09

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**Denominazione commerciale: EPO-FIX EMBEDDING RESIN**

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

*prodotto di reazione: bisfenolo-A-epicloridrina resine epossidiche (peso molecolare medio  $\leq 700$ ) ossirano, mono[(C12-14-alchilossi)metil] derivati*

· **Indicazioni di pericolo**

*H315 Provoca irritazione cutanea.*

*H319 Provoca grave irritazione oculare.*

*H317 Può provocare una reazione allergica cutanea.*

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

· **Consigli di prudenza**

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

*P273 Non disperdere nell'ambiente.*

*P280 Indossare guanti / occhiali di protezione / protezione per il viso.*

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

*P333+P313 In caso di irritazione o eruzione della pelle: consultare un medico.*

*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: 25068-38-6 NLP: 500-033-5	prodotto di reazione: bisfenolo-A-epicloridrina resine epossidiche (peso molecolare medio $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50- $\leq$ 100%
CAS: 68609-97-2 EINECS: 271-846-8	ossirano, mono[(C12-14-alchilossi)metil] derivati ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25- $\leq$ 50%

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

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

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

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

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

· **Contatto con gli occhi:**

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

· **Ingestione:** Se il dolore persiste consultare il medico.

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

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

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

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

### **SEZIONE 6: Misure in caso di rilascio accidentale**

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.
- **6.2 Precauzioni ambientali:**  
In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.  
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).  
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:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

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

- **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:**  
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

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- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**  
Tenere lontano da cibo, bevande e foraggi.  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**  
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **Guanti protettivi:**



Guanti protettivi

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

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



Occhiali protettivi a tenuta

### SEZIONE 9: Proprietà fisiche e chimiche

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

##### · Indicazioni generali

##### · Aspetto:

**Forma:** Liquido  
**Colore:** Giallo chiaro

· **Odore:** Inodore

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

##### · Cambiamento di stato

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

**Punto di ebollizione iniziale e intervallo di ebollizione:** Non definito.

· **Punto di infiammabilità:** 177 °C

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

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· <b>Temperatura di decomposizione:</b>	Non definito.
· <b>Temperatura di autoaccensione:</b>	Prodotto non autoinfiammabile.
· <b>Proprietà esplosive:</b>	Prodotto non esplosivo.
· <b>Limiti di infiammabilità:</b>	
<b>Inferiore:</b>	Non definito.
<b>Superiore:</b>	Non definito.
· <b>Tensione di vapore:</b>	Non definito.
· <b>Densità a 20 °C:</b>	1,1 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Poco e/o non miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>VOC (CE)</b>	0,00 %
<b>Contenuto solido:</b>	0,0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

**SEZIONE 10: Stabilità e reattività**

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

**SEZIONE 11: Informazioni tossicologiche**

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**  
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.

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- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

### SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** Tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
Pericolosità per le acque classe 2 (D) (Autoclassificazione): pericoloso  
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.  
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.  
Tossico per pesci e plancton.  
tossico per gli organismi acquatici
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

### SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

### SEZIONE 14: Informazioni sul trasporto

- |                                           |                                                                                                                                                                  |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| · <b>14.1 Numero ONU</b>                  |                                                                                                                                                                  |
| · <b>ADR, IMDG, IATA</b>                  | UN3082                                                                                                                                                           |
| · <b>14.2 Nome di spedizione dell'ONU</b> |                                                                                                                                                                  |
| · <b>ADR</b>                              | 3082 MATERIA PERICOLOSA PER L'AMBIENTE, LIQUIDA,<br>N.A.S. (prodotto di reazione: bisfenolo-A-epicloridrina resine<br>epossidiche (peso molecolare medio ≤ 700)) |

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· <b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)), MARINE POLLUTANT
· <b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700))

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

· <b>Classe</b>	9 Materie ed oggetti pericolosi diversi
· <b>Etichetta</b>	9

· **14.4 Gruppo di imballaggio**· **ADR, IMDG, IATA** III· **14.5 Pericoli per l'ambiente:**

· <b>Marine pollutant:</b>	Simbolo (pesce e albero)
· <b>Marcatura speciali (ADR):</b>	Simbolo (pesce e albero)
· <b>Marcatura speciali (IATA):</b>	Simbolo (pesce e albero)

· **14.6 Precauzioni speciali per gli utilizzatori**

· <b>N° identificazione pericolo (Numero Kemler):</b>	Attenzione: Materie ed oggetti pericolosi diversi 90
· <b>Numero EMS:</b>	F-A,S-F
· <b>Stowage Category</b>	A

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

Non applicabile.

· **Trasporto/ulteriori indicazioni:**

· <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>	-

· **IMDG**

· <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

· **UN "Model Regulation":**

UN 3082 MATERIA PERICOLOSA PER L'AMBIENTE, LIQUIDA, N.A.S. (PRODOTTO DI REAZIONE: BISFENOLO-A-EPICLORIDRINA RESINE EPOSSIDICHE (PESO MOLECOLARE MEDIO  $\leq$  700)), 9, III

IT

(continua a pagina 8)

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

Stampato il: 13.04.2020

Revisione: 13.04.2020

**Denominazione commerciale: EPO-FIX EMBEDDING RESIN**

(Segue da pagina 7)

### **SEZIONE 15: Informazioni sulla regolamentazione**

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.
- **Categoria Seveso E2** Pericoloso per l'ambiente acquatico
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore** 200 t
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore** 500 t
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 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**

*H315 Provoca irritazione cutanea.*

*H317 Può provocare una reazione allergica cutanea.*

*H319 Provoca grave irritazione oculare.*

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

- **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)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2*

*Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2*

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

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

# 물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.13

개정: 2020.04.13

## 1 화학제품과 회사에 관한 정보

### 제품제품제명

· **제품명: EPO-FIX EMBEDDING RESIN**

· **상품번호: 1232-A, 1232-R**

해당 해당 물질이나 혼합물(또는 관련 화합물)의 용도 및 사용 금지 용도 추가적인 정보가 존재하지 않습니다.

· **제품의 권고 용도와 사용 용도에 대한 제한 사항** 실화 학품

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

· **제조자/수입자/유통업체 정보**

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

Samchang Commercial Co., Ltd.  
Yeo Eui Do  
PO Box 1110  
Seoul, Korea  
Tel: 82 2 703 3040  
Fax: 82 2 717 3298

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

· **추가적인 정보** (특히 독성, 휘발성, 인화성, 산화성, 부식성, 환경 독성) product safety department

· **비상연락 전화번호:**

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

## 2 유해성·위험성

· **순물질 또는 혼합물(또는) 분류분류**



환경

수생환경 유해성 - 만성2

H411 장기적 영향에 의해 수생생물에 유독함



피부 부식성/피부 자극성 - 구분 2 H315 피부에 자극을 일으킴

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

피부 과민성 - 구분 1

H317 알레르기성 피부 반응을 일으킬 수 있음

· **라벨표기 요소요소**

· **라벨표기 요소**

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

(2 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(1 쪽부터 계속)

**그림문자**



GHS07 GHS09

**신호어 경고**

**상표상에 명확히 위험성이 표시된 성분:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) oxirane, mono[(C12-14-alkyloxy)methyl] derivs

**유해성**

- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 장기적 영향에 의해 수생생물에 유독함

**예방조치**

- 분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.
- 환경으로 배출하지 마십시오.
- 보호장갑 / 눈 보호대 / 안면 보호구 착용.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.
- 피부자극성 또는 홍반이 나타나면 의학적인 조언·주의를 받으십시오.
- (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

**기타기타**

- PBT(잔류성, 생물농축성, 물생분해성) vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있지 않음.
- PBT(잔류성, 생물농축성, 물생분해성) 당사항 없음.
- vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있지 않음.

### 3 구성성분의 명칭 및 함유량

**· 화학적 특성: 혼합물**

설명설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· 위험요소요소		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) 수생환경 유해성 - 만성2, H411; 피부 부식성/피부 자극성 - 구분 2, H315; 심한 눈 손상성/눈 자극성 - 구분 2, H319; 피부 과민성 - 구분 1, H317	>50-≤100%
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs 피부 부식성/피부 자극성 - 구분 2, H315; 피부 과민성 - 구분 1, H317	>25-≤50%

### 4 응급조치 요령

**· 응급조치요령 내용내용**

**· 흡입했을 때:**

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

**· 피부에 접촉했을 때:** 즉시물과비누로씻고잘행군다.

눈에눈에물대갔을 때: 흐르는 물에 눈을 몇분동안 씻어내고나서, 증상이 지속될 경우에는 의사와 상담한 다

**· 먹었을 때:** 증상이 지속될 경우에는 의사와 상 담 한 다.

**기타기타**

가장가장 중요한 것은 명세서에 기재된 영향영향적인 정보가 존재하지 않습니다.

(3 쪽에 계속)



# 물질안전보건자료 GHS에 따라

인쇄일자: 2020.04.13

개정: 2020.04.13

## 제품명: EPO-FIX EMBEDDING RESIN

(3 쪽부터 계속)

더러워지거나 음료가 묻은 옷은 즉시 탈의한다.  
휴식 전이나 작업이 끝날 때마다 손을 씻는다.  
눈과 피부와의 접촉은 피한다.

**호흡기 보호**

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

**보수 보호**



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.  
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.  
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

**장갑 의재료**

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

**장갑 재료의 투과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지도되고, 준수되어야 한다.

**보수 보호**



확조이는 보안경

### 9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

**일반정보**

외형의 외형

물리적 상태	액체
색:	연한 노랑
냄새	무취의
후각역치	알맞지 않다.

· pH: 알맞지 않다.

**상태변화**

녹는점/어는점:	맞지 않는
초기 녹는점과 끓는점 범위	맞지 않는

· 인화점: 177 °C

· 인화성 고체/기체: 해당사항 없음.

분해 온도

· 자기점화: 이 제품은 자연발화성이 없다.

· 폭발위험: 이 제품은 폭발위험성이 없다

인화 안전 정보: 폭발 위험성 상한선

아래로:	알맞지 않다.
위로 위로	알맞지 않다.

(5 쪽에 계속)



# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(4 쪽부터계속)

· <b>증기압:</b>	알맞지않다.
밀도밀도 <del>밀도</del> 경우 20 °C:	1.1 g/cm <sup>3</sup>
비중비중비중	알맞지않다.
· <b>증기밀도:</b>	알맞지않다.
증발 <del>증발</del> <del>증발</del> 속도	알맞지않다.
· <b>용해도:</b>	
· <b>물:</b>	각각의경우에따라서는 거의혼합 할수없는
· <b>n 옥탄올/물 분배계수:</b>	알맞지않다.
점도점도점도	
· <b>역학성:</b>	알맞지않다.
· <b>동점성:</b>	알맞지않다.
· <b>용매내용물</b>	
· <b>VOC (EU)</b>	0.00 %
· <b>고체양 함량함량</b>	0.0 %
기타 <del>기타</del> <del>기타</del> 정보	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- **반응성** 추가적인 정보가 존재하지 않습니다.
- **화학적 안정성**
- **화학적 안정성 및 유해 원인의 가능성 / 피해야할 조건 조건**에 따라 사용 할 경우 해체는 없다
- **유해반응 가능성** 위험한 반응으로는 알려지지 않았다.
- **피해야할 조건 조건** 추가적인 정보가 존재하지 않습니다.
- **혼합 혼합 혼합 혼합** 추가적인 정보가 존재하지 않습니다.
- **유해분해물질:** 위험성 있는 분해물들은 알려지지 않았다.

### 11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- 급성 ~~급성~~ ~~급성~~ 독성
- **일차적 자극 효과**
- 피부 피부 ~~피부~~ ~~피부~~ 또는 **자극성:** 피부와 점막을 자극한다.
- 심한 심한 심한 심한 심한 **자극성:** 자극
- **감각화:** 피부 접촉을 통하여 감각화 가능성이 있다.
- **추 가 적 인 독 성 에 관 한 정보**
- 이제 품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들의 사전 준비에 대하여 제시하고 있다.
- 자극적인

### 12 환경에 미치는 영향

- 독성독성독성
- **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.
- **토양 내 이동성** 추가적인 정보가 존재하지 않습니다.

(6 쪽에 계속)

# 물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(5 쪽부터계속)

- **생태독성:**  
의견의견의견류에독이됨
- **추가적인 생태학 정보정보**

**일반 열안정성특징**

수질오염등급 2 (자체등급분류): 수질오염이된  
지하수나, 하천으로또는하수도망에도달하지않게한다.  
지하수로경미한양이유입되었을경우엔이미식수오염상태이다  
하천에서는역시물고기나플랑크톤게는독성이있다.  
물속의유기체에독이되는것

- PBT(잔류성, 생물농축성, 물질분해성) 및 vPvB(고 잔류성, 고 생물농축성, 물질분해성) 평가 결과
  - PBT(잔류성, 생물농축성, 물질분해성) 당사항 없음.
  - vPvB(고 잔류성, 고 생물농축성, 물질분해성) 당사항 없음.
- 기타기타 **부작용** 추가적인 정보가 존재 하지 않습니다.

### 13 폐기시 주의사항

- **폐기물 처리 방법**  
권고 권고 **쓰레기**와 함께 처리되어서는 안된다. 하수도망으로유입되어서는 안된다.
- **비위생적 포장포장**  
권고 권고 **쓰레기**의지침에입각한쓰레기처리.

### 14 운송에 필요한 정보

**유엔 유엔번호**

· ADR, IMDG, IATA UN3082

**적정적정명명**

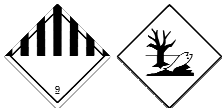
· ADR 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

· IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT

· IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

**교통 교통 위험 라벨**

· ADR, IMDG, IATA



**등급 등급**

· **위험물 라벨라벨** 9 여러모로위험한물 질과물체

9

**용기등급**

· ADR, IMDG, IATA III

(7 쪽에계속)

# 물질안전보건자료 GHS에 따라라다

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(6 쪽부터계속)

· 환경적 유해물질: · 해양오염물질: 특수 위험물(환경(R): 특수 위험물(환경(A):	심벌 (물고기와 나무) 심벌 (물고기와 나무) 심벌 (물고기와 나무)
· 이동시 특별 취급 조치 위험 위험 코드 · E 번호 번호 · Stowage Category	경고: 여러모로 위험한 물질과 물체 90 F-A,S-F A
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 운송	해당사항 없음.
· 운송/추가정보	
· ADR 한정 양(양량 수량) · Excepted quantities (EQ)  운송 위험물 구분 터널 제한 사항 코드	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 -
· 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 번호/위험물 코드	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

## 15 법적 규제현황

· 산업안전보건법에 의해 규제 제조제 조제 금지 물질:	어떠한 내용물도 목록화되어있지않다
· 허가대상 물질:	어떠한 내용물도 목록화되어있지않다
· 관리대상 유해물질:	어떠한 내용물도 목록화되어있지않다
· 작업환경 측정 대상 유해인자	어떠한 내용물도 목록화되어있지않다
· 특수건강 점검 대상 유해인자	어떠한 내용물도 목록화되어있지않다

(8 쪽에 계속)

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(7 쪽부터 계속)

해당 해당 순물질 또는 혼합물에 대한 안전보건자료 작성 규정(화학물질 관리법)

· <b>Korean Existing Chemical Inventory</b>		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	KE-24000
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	KE-27545

· **화학물질관리법**  
· **사고대비물질**  
어떠한 내용물도 목록화 되어있지 않다

· **금지물질**  
어떠한 내용물도 목록화 되어있지 않다

· **제한물질**  
어떠한 내용물도 목록화 되어있지 않다

· **유독물질**  
어떠한 내용물도 목록화 되어있지 않다

· **허가물질**  
25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

· **등록 등록 품목 또는 선제 대상 화학물질**  
어떠한 내용물도 목록화 되어있지 않다

· **'21년까지 등록하여야 할 압, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존 화학물질**  
어떠한 내용물도 목록화 되어있지 않다

· **중점관리물 질(양) 지정 지정**  
· **표1 중점관리물 질(제한전관련관련)**  
어떠한 내용물도 목록화 되어있지 않다

· **표2 중점관리물 질(제한전관련관련)**  
어떠한 내용물도 목록화 되어있지 않다

· **관리 방법 요소**  
본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· **그림 문자**



GHS07 GHS09

· **신호어 경고**  
· **상표상에 명확히 위험성이 표시된 성분:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· **유해 위험 문구**  
피부에 자극을 일으킴  
눈에 심한 자극을 일으킴  
알레르기성 피부 반응을 일으킬 수 있음  
장기적 영향에 의해 수생생물에 유독함

· **예방 조치 문구**  
분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.  
환경으로 배출하지 마시오.  
보호장갑 / 눈 보호대 / 안면 보호구 착용.

(9 쪽에 계속)

# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2020.04.13

개정: 2020.04.13

**제품명: EPO-FIX EMBEDDING RESIN**

(8 쪽부터계속)  
 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.  
 피부자극성 또는 홍반이 나타나면 의학적인 조언·주의를 받으시오.  
 (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.  
 · **화학물질 안전성 평가** 화학물질 안전성 평가가 수행되지 않음

### 16 그 밖의 참고사항

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

최초 최초 작성일자: 2020.04.13

개정 개정 개수: 1 / 최종 개정일자: 1 / 2020.04.13

· **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)  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

KR

# 安全資料表

## 據根根據據據性化學品標示及通識規則

打印日期 2020.04.13

在 2020.04.13 審核

### 1 化學品與廠商資料

- 產品識別者
- 化學品中文名稱名稱名稱化學品俗名或商品名: EPO-FIX EMBEDDING RESIN
- 商品編號: 1232-A, 1232-R
- 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: info@emsdiasum.com  
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 危害辨識資料

#### · 緊急情況概述:

淺黃色，液體，造成皮膚刺激。造成嚴重眼睛刺激。可能造成皮膚過敏。對水生生物有毒並具有長期持續影響。

#### · GHS危險性類別



環境

水環境之危害物質(慢毒性) 第2級 H411 對水生生物有毒並具有長期持續影響



腐蝕/刺激皮膚物質 第2級 H315 造成皮膚刺激  
嚴重損傷/刺激眼睛物質 第2A級 H319 造成嚴重眼睛刺激  
皮膚過敏物質 第1級 H317 可能造成皮膚過敏

#### · 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。

圖示圖示圖示



GHS07



GHS09

名稱名稱名稱

#### · 標籤上辨別危險的成份:

4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物  
C12-14-烷基縮水甘油醚

#### · 危險字句

造成皮膚刺激

(在 2 頁繼續)

# 安全資料表

## 據根根據據性化學品標示及通識規則

打印日期 2020.04.13

在 2020.04.13 審核

化學品中文名稱名稱名稱化學品俗名或商品名：EPO-FIX EMBEDDING RESIN

(在 1 頁繼續)

造成嚴重眼睛刺激  
可能造成皮膚過敏  
對水生生物有毒並具有長期持續影響

· **警戒字句**

· **預防措施**

避免吸入粉塵/煙/氣體/煙霧/蒸氣/噴霧。  
避免排放於環境中。  
戴防護手套/防護眼罩/防護面具。

· **事故響應**

如進入眼睛：用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出，取出隱型眼鏡。繼續清洗。  
如發生皮膚刺激或皮疹：求醫治療/諮詢。

· **廢棄處置**

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· **其他有害性**

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

### 3 成分辨識資料

· **混合物**

描述描述描述以下含有無害添加劑的成分組成的混合物

· **危險的成分:**

25068-38-6	4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物 ⚠ 水環境之危害物質(慢性) 第2級, H411; ⚠ 腐蝕/刺激皮膚物質 第2級, H315; 嚴重損傷/刺激眼睛物質 第2級, H319; 皮膚過敏物質 第1級, H317	>50-≤100%
68609-97-2	C12-14-烷基縮水甘油醚 ⚠ 腐蝕/刺激皮膚物質 第2級, H315; 皮膚過敏物質 第1級, H317	>25-≤50%

### 4 急救措施

· **應急措施要領**

吸入吸入吸入

供給新鮮空氣並且確保會叫醫生。

萬一病人不清醒時,請讓病人側躺以便移動。

· **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。如果症狀仍然持續,請諮詢醫生。

食入食入食入如果症狀仍然持續,請諮詢醫生。

· **給醫生的資料:**

· **最重要的急慢性症狀及其影響** 無相關詳細資料。

· **需要及時的醫療處理及特別處理的症狀** 無相關詳細資料。

### 5 滅火措施

· **滅火方法**

· **滅火的方法和滅火劑:** 使用適合四周環境的滅火措施。

· **特別危險性** 無相關詳細資料。

(在 3 頁繼續)

# 安全資料表

## 據根根據據性化學品標示及通識規則

打印日期 2020.04.13

在 2020.04.13 審核

化學品中文名稱名稱名稱化學品俗名或商品名：EPO-FIX EMBEDDING RESIN

(在 2 頁繼續)

- **特殊滅火方法**
- **消防人員特殊的防護裝備**: 沒有要求特別的措施.

## 6 洩漏處理方法

- **保護措施** 沒有要求.
- **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.  
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).  
確保有足夠的通風裝置.
- **參照其他部分**  
有關安全處理的資料請參閱第 7 節.  
有關個人保護裝備的資料請參閱第 8 節.  
有關棄置的資料請參閱第 13 節.

## 7 安全處置與儲存方法

- **操作處置**
- **儲存** 儲存 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**: 不需特別的措施.
- **混合危險性等安全儲存條件**
- **儲存** 儲存 儲存  
· **儲存庫和容器須要達到的要求**: 沒有特別的要求.  
· **有關使用一個普通的儲存設施來儲存的資料**: 不需要.  
· **有關儲存條件的更多資料**: 將容器密封.  
· **具體的最終用戶** 無相關詳細資料.

## 8 暴露預防措施

- **工程控制方法**: 沒有進一步數據;見第 7 項.
- **控制變數**
- **在工作場需要監控的限值成分** 該產品不含任何必須在工作間受到監視的重要價值的材料.
- **額外的資料**: 制作期間有效的清單將作為基礎來使用.
- **遺漏控制**
- **個人防護設備**:  
· **一般保護和衛生措施**:  
遠離食品、飲料和飼料.  
立即除去所有的不潔的和被汙染的衣服.  
在休息之前和工作完畢後請清洗雙手.  
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汙染的情況下,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.

(在 4 頁繼續)



# 安全資料表

## 據根據據據性化學品標示及通識規則

打印日期 2020.04.13

在 2020.04.13 審核

化學品中文名稱名稱名稱化學品俗名或商品名：EPO-FIX EMBEDDING RESIN

(在 3 頁繼續)

## · 手防護:



保護手套

手套的物料必須是不滲透性的,且能抵抗該產品/物質/添加劑。  
基於缺乏測試,對於產品/制劑/化學混合物,並不會提供手套材料的建議  
選擇手套材料時,請注意材料的滲透時間,滲濾率和降解參數

## · 手套材料

選擇合適的手套不單取決於材料,亦取決於質量特征,以及來自哪一間生產廠家,因為該產品是由很多材料  
配制而成,手套材料的抵抗力並不可預計,所以,必須在使用之前進行檢查

· 滲入手套材料的時間 請向勞保手套生產廠家獲取準確的破裂時間並觀察實際的破裂時間

## · 眼睛防護:



密封的護目鏡

## 9 物理及化學性質

## · 有關基本物理及化學特性的資訊

## · 一般說明

外觀外觀外觀

形狀形狀形狀

液體

顏色顏色顏色

淺黃色

氣味氣味氣味

無氣味的

## · 嗅覺閾限

未決定.

## · pH值:

未決定.

## · 條件的更改

熔點熔點熔點

未確定的

沸點沸點沸點

未確定的

閃點閃點閃點

177 °C

· 可燃性 (固體、氣體): 不適用的

## · 分解溫度:

未決定.

## · 自燃溫度:

該產品是不自燃的

## · 爆炸的危險性:

該產品並沒有爆炸的危險

## · 爆炸極限:

較低較低較低

未決定.

較高較高較高

未決定.

## · 蒸氣壓:

未決定.

密度密度密度

1.1 g/cm<sup>3</sup>

## · 相對密度

未決定.

## · 蒸氣密度

未決定.

## · 蒸發速率

未決定.

(在 5 頁繼續)

# 安全資料表

## 據根根據據據性化學品標示及通識規則

打印日期 2020.04.13

在 2020.04.13 審核

化學品中文名稱名稱名稱化學品俗名或商品名：EPO-FIX EMBEDDING RESIN

(在 4 頁繼續)

**溶解性**  
水：不能拌和的或難以拌和

**辛醇/水分配係數** 未決定。

**黏性：**  
動態動態動態 未決定。  
運動運動運動學的 未決定。

**· 溶劑成份：**

**· 固體成份：** 0.0 %  
**· 其他資訊** 無相關詳細資料。

## 10 安定性及反應性

**反應性** 無相關詳細資料。

**穩定穩定**

**分解/變質/降解情況：** 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。

**· 避免條件** 無相關詳細資料。

**· 不相容的物質：** 無相關詳細資料。  
**· 危險的分解產物：** 未知有危險的分解產品。

## 11 毒性資料

**· 對毒性學影響的資訊**

**· 急性毒性：**

**· 主要刺激影響：**

皮膚皮膚刺激皮膚和粘膜。

**· 在眼睛上面：** 刺激的影響。

**致敏致敏作用** 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：  
刺激性的

## 12 生態資料

**· 生態毒性**

**· 水生毒性：** 無相關詳細資料。

**持久性和降解性** 無相關詳細資料。

**· 環境系統習性：**

**· 潛在的累積性** 無相關詳細資料。

**土壤土壤移動性** 無相關詳細資料。

**· 生態性的影響：**

**· 備注：** 對魚類有毒

**· 額外的生態學資料：**

**· 總括注解：**

水危害級別 2 (德國規例) (通過名單進行自我評估): 對水是危害的  
不要讓該產品接觸地下水、水道或汗水系統。  
即使是少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。

(在 6 頁繼續)

# 安全資料表

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(在 5 頁繼續)

對水中的有機物有毒。  
 · PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質)評價結果  
 · PBT(殘留性、生物濃縮性、毒性物質) 不適用的  
 · vPvB(高殘留性、高生物濃縮性物質): 不適用的  
 其他其他其他用無相關詳細資料。

### 13 廢棄處置方法

· 廢棄處置方法  
 建議建議建議將該產品和家居垃圾一起丟棄. 不要讓該產品接觸污水系統.  
 · 受污染的容器和包裝:  
 建議建議建議根據官方的規章來丟棄.

### 14 運送資料

聯合聯合聯合危險貨物編號(UN號)

· ADR, IMDG, IATA UN3082

適當適當適當船名

· ADR 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物)  
 · IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT  
 · IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

運輸運輸運輸等級

· ADR, IMDG, IATA



· 級別 9 不同危險的物質和物體  
 標籤標籤標籤 9

· 包裝組別

· ADR, IMDG, IATA III

· 危害環境:

· 海運海運海運物質物質 象徵符號 (魚和樹)

· 具體標記 (ADR): 象徵符號 (魚和樹)

· 具體標記 (IATA): 象徵符號 (魚和樹)

· 用戶特別預防措施

警告: 不同危險的物質和物體

· 危險編碼:

90

· 運輸運輸運輸編碼

F-A,S-F

(在 7 頁繼續)

# 安全資料表

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在 2020.04.13 審核

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(在 6 頁繼續)

· Stowage Category	A
· MARPOL73/78(針對船舶引起的海洋污染預防協約 件附件書根據根據根據國際國際國際貨物編碼)值大量大量 運送運送運送	不適用
<b>運輸運輸運輸的資料:</b>	
· 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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物), 9, III

### 15 法規資料

· 對相應純物質或者混合物的安全、保健及環境法規/法律 · 優先管理化學品之指定及運作管理辦法
附表附表附表對於未滿十八歲羣羣或或或後未滿女年女性雙工具危害性之化學品 沒有列出成份
第二第二條第二款第一目 沒有列出成份
第二第二條第二款第二目 沒有列出成份
· 新化學物質及既有化學物質資料登錄辦法 英 25068-38-6   4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物
國現國現國現化學物質名錄 列出所有成份
· TCSCA 列管編號編號編號 沒有列出成份
· 毒性分類 沒有列出成份
· 管制濃度 ( w/w% ) 沒有列出成份
· 大量運作基準基公斤 ) 沒有列出成份
· 新化學物質及既有化學物質資料登錄辦法, 附表六 25068-38-6   4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物

(在 8 頁繼續)

# 安全資料表

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(在 7 頁繼續)

· TCSI - Taiwan Chemical Substance Inventory

列出所有成分

· GHS標籤元素 本產品根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

圖示圖示圖示



GHS07 GHS09

名稱名稱名稱

· 標籤上辨別危險的成份:

4,4'-(1-甲基亞乙基)雙酚與2-(氯甲基)環氧乙烷之聚合物  
C12-14-烷基縮水甘油醚

· 危險字句

造成皮膚刺激  
造成嚴重眼睛刺激  
可能造成皮膚過敏  
對水生生物有毒並具有長期持續影響

· 警戒字句

· 預防措施

避免吸入粉塵/煙/氣體/煙霧/蒸氣/噴霧。  
避免排放於環境中。  
戴防護手套/防護眼罩/防護面具。

· 事故響應

如進入眼睛：用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出，取出隱型眼鏡。繼續清洗。  
如發生皮膚刺激或皮疹：求醫治療/諮詢。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 化學物質安全性評價: 尚未進行化學物質安全性評價

## 16 其他資料

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

· 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)

PBT: 持久性生物累積性有毒物質

vPvB: very Persistent and very Bioaccumulative

腐蝕/刺激皮膚物質 第2級: Skin corrosion/irritation – Category 2

嚴重損傷/刺激眼睛物質 第2級: Serious eye damage/eye irritation – Category 2

嚴重損傷/刺激眼睛物質 第2A級: Serious eye damage/eye irritation – Category 2A

皮膚過敏物質 第1級: Skin sensitisation – Category 1

水環境之危害物質(慢毒性) 第2級: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

# Sikkerhetsdatablad

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

Trykkdato: 13.04.2020

revidert den: 13.04.2020

## Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** EPO-FIX EMBEDDING RESIN
- **Artikkelnummer:** 1232-A, 1232-R
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**  
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## Avsnitt 2: Fareidentifikasjon

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



GHS09 Miljø

Aquatic Chronic 2 H411 Giftig, med langtidsvirkning, for liv i vann.



GHS07

Skin Irrit. 2            H315 Irriterer huden.  
Eye Irrit. 2            H319 Gir alvorlig øyeirritasjon.  
Skin Sens. 1            H317 Kan utløse en allergisk hudreaksjon.

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



GHS07 GHS09

- **Varselord** Advarsel
- **Farebestemmende komponenter ved etikettering:**  
bisfenol-A og epiklorhydrin, epoksyharpiks (gjennomsnittsmolekylvekt ≤ 700), reaksjonsprodukt av oksiran, mono[(C12-14-alkyloksy)metyl]derivater
- **Faresetninger**  
H315 Irriterer huden.

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# Sikkerhetsdatablad

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

Trykkgdato: 13.04.2020

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**Handelsnavn: EPO-FIX EMBEDDING RESIN**

(fortsatt fra side 1)

H319 Gir alvorlig øyeirritasjon.

H317 Kan utløse en allergisk hudreaksjon.

H411 Giftig, med langtidsvirkning, for liv i vann.

**· Sikkerhetssetninger**

P261 Unngå innånding av støv/røyk/gass/tåke/damp/aerosoler.

P273 Unngå utslipp til miljøet.

P280 Benytt vernehansker/øyevern/ansiktsvern.

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.

P333+P313 Ved hudirritasjon eller utslett: Søk legehjelp.

P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

**· 2.3 Andre farer****· Resultater av PBT- og vPvB-vurdering**· **PBT:** Ikke brukbar.· **vPvB:** Ikke brukbar.**Avsnitt 3: Sammensetning/opplysninger om bestanddeler****· 3.2 Kjemisk karakterisering: Stoffblandinger**· **Beskrivelse:** Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.**· Farlige innholdsstoffer:**

CAS: 25068-38-6 NLP: 500-033-5	bisfenol-A og epiklorhydrin, epoksyharpiks (gjennomsnittsmolekylvekt $\leq$ 700), reaksjonsprodukt av ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oksiran, mono[(C12-14-alkyloksy)metyl]derivater ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

· **Ytterligere informasjon:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.**Avsnitt 4: Førstehjelpstiltak****· 4.1 Beskrivelse av førstehjelpstiltak****· 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.**· Etter øyekontakt:**

Skyll øynene med åpne øyenlokk i flere minutter under rennende vann. Ved fortsatt besvær tilkall lege.

· **Etter svelging:** Ved fortsatt besvær må lege konsulteres.**· 4.2 De viktigste symptomene og virkningene, både akutte og forsinkede**

Ikke noe mer relevant informasjon tilgjengelig.

**· 4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig**

Ikke noe mer relevant informasjon tilgjengelig.

**Avsnitt 5: Brannsløkkingstiltak****· 5.1 Sløkkingsmidler**· **Egnede slukningsmidler:** Brannslukningstiltak tilpasses omgivelsene.· **5.2 Særlige farer knyttet til stoffet eller stoffblandingen** Ikke noe mer relevant informasjon tilgjengelig.

(fortsatt på side 3)

# Sikkerhetsdatablad

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

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(fortsatt fra side 2)

- **5.3 Råd til brannmannskaper**
- **Spesielt verneutstyr:** Ingen spesielle tiltak nødvendig.

### Avsnitt 6: Tiltak ved utilsiktede utslipp

- **6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner** Ikke nødvendig.
- **6.2 Forsiktighetsregler med hensyn til miljø**  
Ansvarlige myndigheter varsles hvis produktet er kommet ned i vassdrag eller kloakk.  
La ikke produktet komme ned i kloakk/overflatevann/grunnvann.
- **6.3 Metoder og materialer for oppsamling og rensing**  
Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).  
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 lagring

- **7.1 Forsiktighetsregler for sikker håndtering**  
Sørg for god ventilasjon/avsugning på arbeidsplassen.  
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:** Ingen særlige tiltak nødvendig.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:** Hold beholderne tett lukket.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.
- **8.1 Kontrollparametere**
- **Komponenter med grenseverdier for arbeidsplass som må overholdes:**  
Produktet inneholder ingen relevante mengder av stoffer med arbeidsplassrelevante grenseverdier som må overvåkes.
- **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.
- **8.2 Eksponeringskontroll**
- **Personlig verneutstyr:**
- **Generelle verne- og hygienetiltak:**  
Holdes adskilt fra næringsmidler, drikkevarer og fôrstoffer.  
Fjern omgående forurensede, gjennomvåtede klær.  
Vask hendene før arbeidspauser og ved arbeidets slutt.  
Unngå berøring med øyne og hud.
- **Åndedrettsvern:**  
Ved korttidlig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.

(fortsatt på side 4)



# Sikkerhetsdatablad

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

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(fortsatt fra side 3)

**· 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 forhåndsberegnes, og denne må testes før bruk.

**· gjennomtrengingstid for hanskemateriale**

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

**· Øyevern:**

Tettsittende vernebrille

## Avsnitt 9: Fysiske og kjemiske egenskaper

**· 9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper****· alminnelige opplysninger****· Utseende:**

<b>Form:</b>	Væske
<b>Farge:</b>	Lysegul
<b>Lukt:</b>	Uten lukt
<b>Lukterskel:</b>	Ikke bestemt.

**· pH-verdi:** Ikke bestemt.

**· Tilstandsendring**

<b>Smeltepunkt/frysepunkt:</b>	Ikke bestemt.
<b>Startkokepunkt og kokeområde:</b>	Ikke bestemt.

**· Flammepunkt:** 177 °C

**· Antennelighet (fast stoff, gass):** Ikke brukbar.

**· Nedbrytingstemperatur:** Ikke bestemt.

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

**· Eksplosive egenskaper:** Produktet er ikke eksplosjonsfarlig.

**· Eksplosjonsgrenser:**

<b>Nedre:</b>	Ikke bestemt.
<b>Øvre</b>	Ikke bestemt.

**· Damptrykk:** Ikke bestemt.

<b>· Tetthet ved 20 °C:</b>	1,1 g/cm <sup>3</sup>
<b>· Relativ tetthet:</b>	Ikke bestemt.
<b>· Damptetthet:</b>	Ikke bestemt.

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# Sikkerhetsdatablad

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

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· <b>Fordampingshastighet:</b>	Ikke bestemt.
· <b>Løslighet i / blandbarhet med vann:</b>	Ikke, hhv. lite blandbar.
· <b>Fordelingskoeffisient; n-oktanol/vann:</b>	Ikke bestemt.
· <b>Viskositet:</b>	
<b>Dynamisk:</b>	Ikke bestemt.
<b>Kinematisk:</b>	Ikke bestemt.
· <b>Løsningsmiddelandel:</b>	
<b>VOC (EF)</b>	0,00 %
<b>Andel faste stoffer:</b>	0,0 %
· <b>9.2 Andre opplysninger</b>	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 Risiko for farlige reaksjoner** Det kjennes ingen farlige reaksjoner.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

### Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**
- **Akutt giftighet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon**  
Irriterer huden.
- **Alvorlig øyeskade/øyeirritasjon**  
Gir alvorlig øyeirritasjon.
- **Sensibilisering ved innånding eller hudkontakt**  
Kan utløse en allergisk hudreaksjon.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnseller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Kreftfremkallende egenskap** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Reproduksjonstoksicitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – enkelteksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

### Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.

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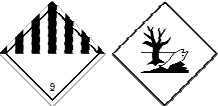
(fortsatt fra side 5)

- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Økotoksiske virkninger:**
- **Bemerkning:** giftig for fisk
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**  
Vannfareklasse 2 (D) (Selvklassifisering): farlig for vann  
Ikke la stoffet komme ned i grunnvannet, i vassdrag eller i kloakker.  
Fare for drikkevann allerede ved utstrømning av små mengder i marken.  
I vassdrag også giftig for fisker og plankton.  
giftig for vannorganismer
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

## Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.

## Avsnitt 14: Transportopplysninger

- |                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| · <b>14.1 FN-nummer</b><br>· <b>ADR, IMDG, IATA</b>                                         | UN3082                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| · <b>14.2 FN-forsendelsesnavn</b><br>· <b>ADR</b><br><br>· <b>IMDG</b><br><br>· <b>IATA</b> | 3082 MILJØFARLIG STOFF, FLYTENDE, N.O.S. (bisfenol-A og epiklorhydrin, epoksyharpiks (gjennomsnittsmolekylvekt ≤ 700), reaksjonsprodukt av)<br>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT<br>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)) |
| · <b>14.3 Transportfareklasse(r)</b><br>· <b>ADR, IMDG, IATA</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| · <b>klasse</b><br>· <b>Fareseddel</b>                                                      | 9 Forskjellige farlige stoffer og gjenstander<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| · <b>14.4 Emballasjegruppe</b><br>· <b>ADR, IMDG, IATA</b>                                  | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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· <b>14.5 Miljøfarer</b>	
· <b>Marine pollutant:</b>	Symbol (fisk og treet)
· <b>Spesielle merking (ADR):</b>	Symbol (fisk og treet)
· <b>Spesielle merking (IATA):</b>	Symbol (fisk og treet)
· <b>14.6 Særlige forsiktighetsregler ved bruk</b>	Advarsel: Forskjellige farlige stoffer og gjenstander
· <b>Farenummer (Kemler-tall):</b>	90
· <b>EMS-nummer:</b>	F-A,S-F
· <b>Stowage Category</b>	A
· <b>14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket</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>	-
-----	
· <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 3082 MILJØFARLIG STOFF, FLYTENDE, N.O.S. (BISFENOL-A OG EPIKLORHYDRIN, EPOKSYHARPIKS (GJENNOMSNITTS MOLEKYLVEKT ≤ 700), REAKSJONSPRODUKT AV), 9, III

### Avsnitt 15: Opplysninger om regelverk

- **15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen**
- **Direktiv 2012/18/EU**
- **Spesifiserte farlige stoffer - VEDLEGG I** ingen av innholdsstoffene er listet opp
- **Seveso kategori E2**
- **Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på lavere nivå 200 t**
- **Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på høyere nivå 500 t**
- **Forordning (EF) nr. 1907/2006 VEDLEGG XVII Begrensninger: 3**
- **15.2 Vurdering av kjemikaliesikkerhet** En kjemisk sikkerhetsvurdering er ikke utført.

### Avsnitt 16: Andre opplysninger

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

- **Relevante satser**
- H315 Irriterer huden.
- H317 Kan utløse en allergisk hudreaksjon.
- H319 Gir alvorlig øyeirritasjon.

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*H411 Giftig, med langtidsvirkning, 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)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Irrit. 2: Hudetsing/hudirritasjon – Kategori 2**Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2**Skin Sens. 1: Hudsensibilisering – Kategori 1**Aquatic Chronic 2: Farlig for vannmiljøet - langsiktig fare for vannmiljøet – Kategori 2*

NO

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### SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** EPO-FIX EMBEDDING RESIN
- **Código do produto:** 1232-A, 1232-R
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS09 ambiente

Aquatic Chronic 2 H411 Tóxico para os organismos aquáticos com efeitos duradouros.



GHS07

Skin Irrit. 2      H315 Provoca irritação cutânea.  
Eye Irrit. 2      H319 Provoca irritação ocular grave.  
Skin Sens. 1      H317 Pode provocar uma reacção alérgica cutânea.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**  
O produto classificou-se e está etiquetado em conformidade com o regulamento CLP.
- **Pictogramas de perigo**



GHS07



GHS09

- **Palavra-sinal** Atenção
- **Componentes determinantes para os perigos constantes do rótulo:**  
produto de reacção: bisfenol-A-(epicloridrina) resinas epoxídicas (peso molecular médio ≤ 700)  
oxirano, derivados mono[(C12-14-alquiloxi)metilo]
- **Advertências de perigo**  
H315 Provoca irritação cutânea.

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*H319 Provoca irritação ocular grave.**H317 Pode provocar uma reacção alérgica cutânea.**H411 Tóxico para os organismos aquáticos com efeitos duradouros.***· Recomendações de prudência***P261 Evitar respirar as poeiras/fumos/gases/névoas/vapores/aerossóis.**P273 Evitar a libertação para o ambiente.**P280 Usar luvas de protecção / protecção ocular / protecção facial.**P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: Enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continue a enxaguar.**P333+P313 Em caso de irritação ou erupção cutânea: consulte um médico.**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: 25068-38-6 NLP: 500-033-5	produto de reacção: bisfenol-A-(epicloridrina) resinas epoxídicas (peso molecular médio $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50- $\leq$ 100%
CAS: 68609-97-2 EINECS: 271-846-8	oxirano, derivados mono[(C12-14-alkiloxi)metilo] ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25- $\leq$ 50%

**· 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****· Em caso de inalação:***Assegurar uma boa entrada de oxigénio e, por razões de segurança, procurar auxílio médico.**Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.***· Em caso de contacto com a pele:** Lavar imediatamente com água e sabão e enxaguar abundantemente.**· Em caso de contacto com os olhos:***Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.***· Em caso de ingestão:** Se os sintomas persistirem, consultar o 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.*

PT

(continuação na página 3)



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### **SECÇÃO 5: Medidas de combate a incêndios**

- **5.1 Meios de extinção**
- **Meios adequados de extinção:** Coordenar no local medidas para extinção do fogo.
- **5.2 Perigos especiais decorrentes da substância ou mistura**  
Não existe mais nenhuma informação relevante disponível.
- **5.3 Recomendações para o pessoal de combate a incêndios**
- **Equipamento especial de protecção:** Não são necessárias medidas especiais.

### **SECÇÃO 6: Medidas a tomar em caso de fugas acidentais**

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência** Não necessário.
- **6.2 Precauções a nível ambiental:**  
Em caso de infiltrações nos leitos de água ou na canalização, comunicar aos serviços públicos competentes.  
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 ).  
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:** Não são necessárias medidas especiais.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:** Manter o recipiente hermeticamente fechado.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

### **SECÇÃO 8: Controlo da exposição/Protecção individual**

- **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:**  
O produto não contém quantidades relevantes de substâncias cujo valor limite relacionado no local de trabalho tenha que ser monitorizado.
- **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.

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Evitar o contacto com os olhos e com a pele.

- **Protecção respiratória:**

Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

- **Protecção das mãos:**



Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

- **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

- **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

- **Protecção dos olhos:**



Óculos de protecção totalmente fechados

### SECÇÃO 9: Propriedades físico-químicas

- **9.1 Informações sobre propriedades físicas e químicas de base**

- **Informações gerais**

- **Aspeto:**

**Forma:** Líquido  
**Cor:** Amarelo-claro

- **Odor:** Inodoro

- **Limiar olfactivo:** Não determinado.

- **valor pH:** Não determinado.

- **Mudança do estado:**

**Ponto de fusão/ponto de congelação:** Não determinado.

**Ponto de ebulição inicial e intervalo de ebulição:** Não determinado.

- **Ponto de inflamação:** 177 °C

- **Inflamabilidade (sólido, gás):** Não aplicável.

- **Temperatura de decomposição:** Não determinado.

- **Temperatura de autoignição:** O produto não é auto-inflamável.

- **Propriedades explosivas:** O produto não corre o risco de explosão.

- **Limites de explosão:**

**Inferior:** Não determinado.

**Superior:** Não determinado.

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· <b>Pressão de vapor:</b>	Não determinado.
· <b>Densidade em 20 °C:</b>	1,1 g/cm <sup>3</sup>
· <b>Densidade relativa</b>	Não determinado.
· <b>Densidade de vapor</b>	Não determinado.
· <b>Taxa de evaporação:</b>	Não determinado.
· <b>Solubilidade em / miscibilidade com água:</b>	Pouco misturável.
· <b>Coefficiente de partição: n-octanol/água</b>	Não determinado.
· <b>Viscosidade:</b>	
<b>Dinâmico:</b>	Não determinado.
<b>Cinemático:</b>	Não determinado.
· <b>Percentagem de solvente: VOC (UE)</b>	0,00 %
<b>Percentagem de substâncias sólidas:</b>	0,0 %
· <b>9.2 Outras informações</b>	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 reações perigosas** Não se conhecem reacções perigosas.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

### SECÇÃO 11: Informação toxicológica

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea**  
Provoca irritação cutânea.
- **Lesões oculares graves/irritação ocular**  
Provoca irritação ocular grave.
- **Sensibilização respiratória ou cutânea**  
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**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

( continuação na página 6 )

**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 13.04.2020

Revisão: 13.04.2020

Nome comercial: **EPO-FIX EMBEDDING RESIN**

(continuação da página 5)

· **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:** Tóxico para os peixes.
- **Outras indicações ecológicas:**
- **Indicações gerais:**  
Classe de perigo para a água 2 (D) (auto-classificação): perigoso para a água.  
Não deixar chegar às águas subterrâneas, aos cursos de água nem à canalização.  
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.  
tóxico para os organismos aquáticos
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

**SECÇÃO 13: Considerações relativas à eliminação**

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.

**SECÇÃO 14: Informações relativas ao transporte**

- |                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 Número ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                                | UN3082                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>· <b>14.2 Designação oficial de transporte da ONU</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>3082 MATÉRIA PERIGOSA DO PONTO DE VISTA DO AMBIENTE, LÍQUIDA, N.S.A. (produto de reacção: bisfenol-A-(epicloridrina) resinas epoxídicas (peso molecular médio ≤ 700))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |

(continuação na página 7)

**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 13.04.2020

Revisão: 13.04.2020

Nome comercial: EPO-FIX EMBEDDING RESIN

(continuação da página 6)

## · 14.3 Classes de perigo para efeitos de transporte

· ADR, IMDG, IATA



· Classe 9 Matérias e objectos perigosos diversos  
· Rótulo 9

## · 14.4 Grupo de embalagem

· ADR, IMDG, IATA III

## · 14.5 Perigos para o ambiente:

· Poluente das águas: Símbolo convencional (peixes e árvore)  
· Marcação especial (ADR): Símbolo convencional (peixes e árvore)  
· Marcação especial (IATA): Símbolo convencional (peixes e árvore)

## · 14.6 Precauções especiais para o utilizador

Atenção: Matérias e objectos perigosos diversos  
· Número de identificação de perigo (Nº Kemler): 90  
· Nº EMS: F-A,S-F  
· Stowage Category A

## · 14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC Não aplicável.

## · Transporte/outras informações:

## · ADR

· Quantidades Limitadas (LQ) 5L  
· Quantidades exceptuadas (EQ) Código: E1  
Quantidade líquida máxima por embalagem interior: 30 ml  
Quantidade líquida máxima por embalagem exterior: 1000 ml  
· Categoria de transporte 3  
· Código de restrição em túneis -

## · 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 3082 MATÉRIA PERIGOSA DO PONTO DE VISTA DO AMBIENTE, LÍQUIDA, N.S.A. (PRODUTO DE REACÇÃO: BISFENOL-A-(EPICLORIDRINA) RESINAS EPOXÍDICAS (PESO MOLECULAR MÉDIO ≤ 700)), 9, III

### SECÇÃO 15: Informação sobre regulamentação

## · 15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente

· Diretiva 2012/18/UE  
· Substâncias perigosas designadas - ANEXO I Nenhum dos componentes se encontra listado.  
· Categoria "Seveso" E2 Perigoso para o ambiente aquático

(continuação na página 8)

**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 13.04.2020

Revisão: 13.04.2020

**Nome comercial: EPO-FIX EMBEDDING RESIN**

( continuação da página 7 )

- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior 200 t**
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior 500 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**

H315 Provoca irritação cutânea.

H317 Pode provocar uma reacção alérgica cutânea.

H319 Provoca irritação ocular grave.

H411 Tóxico para os organismos aquáticos com efeitos duradouros.

· **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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Corrosão/irritação cutânea – Categoria 2

Eye Irrit. 2: Lesões oculares graves/irritação ocular – Categoria 2

Skin Sens. 1: Sensibilização cutânea – Categoria 1

Aquatic Chronic 2: Perigoso para o ambiente aquático - perigo de longo prazo para o ambiente aquático – Categoria 2

# แผ่นข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### 1 การปฐษึสารเดี่ยวหรือสารผสม และผู้ผลิต

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **EPO-FIX EMBEDDING RESIN**
- เลขที่รายชื่อ 1232-A, 1232-R
- 1.2 สารหรือสารผสมที่เกี่ยวข้องที่ระบุให้ใช้และที่ไม่ควรรให้ใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- การประยุกต์ใช้สาร/ การทำ เคมีภัณฑ์ห้องทดลอง
- 1.3 รายละเอียดของผู้จัดหาข้อมูลด้านความปลอดภัย
- ผู้ผลิต/ ผู้จัดหา  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 การปฐษึความเป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับจีเอสดีเอชที 1272/2008



สิ่งแวดล่อม

Aquatic Chronic 2 H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบระยะยาว



Skin Irrit. 2 H315 เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง  
Eye Irrit. 2 H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา  
Skin Sens. 1 H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 ผลิตภัณฑ์ได้รับการจัดประเภทและติดฉลากตามข้อบังคับของ CLP
- ภาพสัญลักษณ์ที่เป็นอันตราย



GHS07 GHS09

- สัญลักษณ์ คำ เตือน !
- ส่วนประกอบที่ระบุอันตรายบนฉลาก  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- ประกาศสิ่งที่เป็นอันตราย  
H315 เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง  
H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา  
H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

(ต่อที่หน้า 2)

# แผนข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อหน้า 1)

H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบต่อระยะยาว

#### ประกาศการป้องกันระดับระวังภัย

P261 หลีกเลี่ยงการสูดหายใจเอาฝุ่น/ ไอสาร/ แกส/ หมอก/ไอ/ ละอองฟุ้ง

P273 หลีกเลี่ยงการปล่อยออกสู่สิ่งแวดล้อม

P280 สวมถุงมือป้องกัน/ที่ป้องกันตา/ที่ป้องกันหน้า

P305+P351+P338 หากเข้าตา : ชะล้างตาอย่างระมัดระวังเป็นเวลาหลายๆนาทีถอดคอนแทกซ์เลนส์ถ้ายังอยู่ที่เดิมและสะดวกที่จะทำก็ให้ชะล้างต่อไป

P333+P313 หากเกิดการระคายเคืองที่ผิวหนังหรือเป็นผื่นคัน : ให้ขอคำปรึกษา/ การรักษาพยาบาลจากแพทย์

P501 ทิ้งสิ่งที่บรรจุ/ภาชนะที่บรรจุตามกฎหมายของท้องถิ่น/แคว้น/ในประเทศ/ระหว่างประเทศ

#### 2.3 อันตรายอื่นๆ

#### ผลของ PBT และการประเมิน vPvB

- PBT: ไม่สามารถใช้ได้

- vPvB: ไม่สามารถใช้ได้

### 3 องค์ประกอบและข้อมูลเกี่ยวกับส่วนผสม

#### 3.2 คุณลักษณะทางเคมี: ส่วนผสม

- คำอธิบาย ส่วนผสมของสารในรายการข้างล่างพร้อมสารเติมแต่งที่ไม่เป็นอันตราย

#### ส่วนประกอบที่มีอันตราย

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

- ข้อมูลรายละเอียดเสริม สำหรับข้อความที่ระบุในรายการวลีความเสี่ยงที่อ้างอิงถึงในส่วนที่ 16

### 4 มาตรการปฐมพยาบาล

#### 4.1 คำอธิบายถึงมาตรการปฐมพยาบาล

#### หลังจากการสูดหายใจเข้าไป

- หาบริเวณที่มีอากาศบริสุทธิ์และเพื่อให้มั่นใจติดต่อแพทย์

- ในกรณีที่คุณไม่รู้สึกตัวให้ขนย้ายคนไข้อย่างมั่นคงในท่าตะแคงด้านข้าง

#### หลังจากการสัมผัสผิวหนัง

- ล้างด้วยน้ำและสบู่แล้วฟอกให้ทั่วทันที

#### หลังจากการสัมผัสลูกตา

- ชะตาที่เปิดอยู่ใต้น้ำที่กำลังไหลเป็นเวลาหลายๆนาทีถ้าอาการไม่ดีขึ้นให้ปรึกษาแพทย์

#### หลังจากการกลืนเข้าไป

- ถ้าอาการยังไม่บรรเทาให้ปรึกษาแพทย์

#### 4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ

- ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### 4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น

- ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 5 มาตรการผจญเพลิง

#### 5.1 สารที่ใช้ดับเพลิง

- สารดับเพลิงที่เหมาะสม ใช้วิธีดับเพลิงที่เหมาะสมกับสภาพแวดล้อม

#### 5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม

- ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### 5.3 คำแนะนำสำหรับพนักงานดับเพลิง

- อุปกรณ์ป้องกันภัย ไม่ต้องมีมาตรการพิเศษ

TH

(ต่อหน้า 3)

# แผนข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อหน้า 2)

#### 6 มาตรการจัดการเมื่อมีการหกั่วไหลของสาร

- 6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน ไม่ได้กำหนด
- 6.2 การให้ความคุ้มครองสิ่งแวดล้อมล่วงหน้า:  
แจ้งผู้มีอำนาจที่เกี่ยวข้องในกรณีที่เกิดการไหลซึมเข้าสู่น้ำหรือระบบระบายน้ำ  
อย่าปล่อยให้เข้าไปในท่อน้ำทิ้ง/ น้ำบนดินหรือใต้ดิน
- 6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจและการทำความสะอาด:  
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ (ทราย ไดอะโตไมท์ตัวยึดเกาะกรดตัวยึดทั่วๆ ไปซีลเลอร์)  
ตรวจให้แน่ใจว่ามีการระบายอากาศที่ดีพอ
- 6.4 การอ้างอิงถึงส่วนอื่น  
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7  
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8  
ดูข้อมูลรายละเอียดเรื่องการกำจัดจากส่วนที่ 13

#### 7 การขนถ่าย เคลื่อนย้าย ใช้งาน และเก็บรักษา

- 7.1 การป้องกันล่วงหน้าสำหรับการจัดการด้านความปลอดภัย  
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ ไอเสียที่ดี  
ป้องกันการเกิดละอองสารฟุ้ง
- ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด ไม่มีมาตรการพิเศษ
- 7.2 เงื่อนไขในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ  
• การจัดเก็บ  
• ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ ไม่มีข้อกำหนดพิเศษ
- ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม ไม่ได้กำหนด
- ข้อมูลรายละเอียดเพิ่มเติมด้านสภาพการจัดเก็บ เก็บโดยปิดผนึกอย่างแน่นหนา
- 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

#### 8 การควบคุมการสัมผัสและการป้องกันส่วนบุคคล

- ข้อมูลรายละเอียดเสริมสำหรับการออกแบบสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7
- 8.1 การควบคุมตัวแปร
- ส่วนผสมพร้อมค่าขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน  
ผลิตภัณฑ์ไม่ได้มีปริมาณวัสดุใดๆ มากพอจนถึงค่าวิกฤติที่จะต้องการติดตามในสถานที่ทำงาน
- ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการใช้งานเป็นหลัก
- 8.2 การควบคุมการสัมผัส
- อุปกรณ์ป้องกันภัยส่วนบุคคล
- มาตรการการป้องกันและสุขอนามัยทั่วไป  
เก็บให้ห่างจากสิ่งของที่เป็นอาหาร เครื่องดื่มและอาหารสัตว์  
ให้ถอดเสื้อผ้าที่เปื้อนและเช็ดก่อนออกทันที  
ล้างมือก่อนที่จะหยุดพักและเมื่อสิ้นสุดเวลาทำงาน  
หลีกเลี่ยงการสัมผัสถูกตาและผิวหนัง
- การป้องกันการสูดหายใจเข้าไป  
ในกรณีที่อยู่เป็นเวลาสั้นหรืออากาศเป็นพิษระดับต่ำใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรือ  
อยู่เป็นเวลานานให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว
- การป้องกันมือ



ถุงมือป้องกัน

วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต

(ต่อหน้า 4)



# แผ่นข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อที่หน้า 3)

เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถังมือสำหรับผลิตภัณฑ์/ การผลิต/ ของผสมเคมี  
เลือกวัสดุสำหรับถังมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม

#### วัสดุที่ใช้ทำถังมือ

การเลือกใช้ถังมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพและข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่งโดยที่ผลิตภัณฑ์เตรียมมาจากสารหลายชนิดความทนทานของวัสดุถังมือไม่สามารถที่จะคำนวณล่วงหน้าดังนั้นจึงต้องตรวจสอบกับการใช้งาน

#### เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถังมือ

ผู้ผลิตถังมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม

#### การป้องกันตา



แว่นตาที่ขอบปิดสนิท

## 9 คุณสมบัติทางกายภาพและทางเคมี

<ul style="list-style-type: none"> <li>9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี</li> <li>ข้อมูลรายละเอียดทั่วไป</li> <li>ลักษณะ :           <ul style="list-style-type: none"> <li>รูปลักษณ์ : ของเหลว</li> <li>สี : สีเหลืองอ่อน</li> <li>กลิ่น : ไม่มีกลิ่น</li> <li>เกณฑ์กลิ่น : ไม่ได้กำหนดไว้.</li> </ul> </li> </ul>	
ค่าค่า pH	ไม่ได้กำหนดไว้.
<ul style="list-style-type: none"> <li>การเปลี่ยนสภาวะ</li> <li>จุดหลอมเหลว/ ขอบเขตการหลอมละลาย</li> <li>จุดเดือด/ ขอบเขตการเดือด</li> </ul>	<ul style="list-style-type: none"> <li>ไม่ได้กำหนด</li> <li>ไม่ได้กำหนด</li> </ul>
จุดวาบไฟ	177 °C
ความสามารถติดไฟ (ของแข็งแกส)	ไม่สามารถใช้ได้
อุณหภูมิสลายตัว	ไม่ได้กำหนดไว้.
การเผาไหม้ด้วยตัวเอง	ผลิตภัณฑ์ไม่เป็นสารจุดไฟติดด้วยตัวเอง
อันตรายจากการระเบิด	ผลิตภัณฑ์ไม่ได้มีอันตรายจากการระเบิด
<ul style="list-style-type: none"> <li>ขอบเขตการระเบิด</li> <li>ขั้นต่ำ</li> <li>ขั้นสูง</li> </ul>	<ul style="list-style-type: none"> <li>ไม่ได้กำหนดไว้.</li> <li>ไม่ได้กำหนดไว้.</li> </ul>
ความดันไอ	ไม่ได้กำหนดไว้.
<ul style="list-style-type: none"> <li>ความหนาแน่น ที่ 20 °C</li> <li>ความหนาแน่นสัมพัทธ์</li> <li>ความหนาแน่นของไอ</li> <li>อัตราการระเหย</li> </ul>	<ul style="list-style-type: none"> <li>1.1 g/cm<sup>3</sup></li> <li>ไม่ได้กำหนดไว้.</li> <li>ไม่ได้กำหนดไว้.</li> <li>ไม่ได้กำหนดไว้.</li> </ul>
<ul style="list-style-type: none"> <li>ความสามารถในการละลายใน / ความสามารถผสมเป็นสารละลายเนื้อเดียวทุกส่วนผสมกับน้ำ</li> </ul>	ไม่สามารถผสมกันได้หรือยากที่จะผสม
สัมประสิทธิ์การแยกคอลลอยด์อินทรีย์คอลลอยด์น้ำ	ไม่ได้กำหนดไว้.

(ต่อที่หน้า 5)

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# แผนข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อที่หน้า 4)

· ความหนืด (ไดนามิก) พลศาสตร์ (คิเนแมติก) จลนศาสตร์	ไม่ได้กำหนดไว้. ไม่ได้กำหนดไว้.
· ปริมาณส่วนประกอบตัวทำละลาย VOC (EC)	0.00 %
ส่วนประกอบที่เป็นของแข็ง · 9.2 ข้อมูลอื่นๆ	0.0 % ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 10 ความเสถียรและการเกิดปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เจือจางที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้
- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย ไม่มีปฏิกิริยาเป็นอันตรายที่รู้จัก
- 10.4 เจือจางเพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายนจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

### 11 ข้อมูลด้านพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา
- ความเป็นพิษอย่างสาหัส:
  - ยกเล็ก
  - อาการระคายเคืองเบื้องต้น
  - บบผิวหนัง
    - เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง
  - ที่ดวงตา
    - เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา
  - การทำให้แพ้
    - อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้

### 12 ข้อมูลด้านนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวข้องกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- ผลกระทบด้านพิษต่อระบบนิเวศน์
- ข้อสังเกต เป็นพิษสำหรับปลา
- ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา
- หมายเหตุทั่วไป
  - เป็นอันตรายต่อน้ำชั้น 2 (กฎข้อบังคับของเยอรมัน)(การประเมินค่าด้วยตัวเอง):เป็นอันตรายกับน้ำ
  - อย่ายปล่อยให้ผลิตภัณฑ์ไปถึงน้ำผิวดินเส้นทางน้ำหรือระบบระบายน้ำเสีย
  - เป็นอันตรายต่อน้ำดื่มแม้จะร่วงลงในพื้นดินเป็นปริมาณน้อย
  - เป็นพิษกับปลาและแพลงค์ตอนในผิวน้ำ
  - มีพิษต่อสิ่งมีชีวิตในน้ำ
- 12.5 ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้

(ต่อที่หน้า 6)

# แผนข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

- 12.6 ผลข้างเคียงอื่นๆ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

(ต่อหน้า 5)

### 13 ข้อพิจารณาในการกำจัด

- 13.1 วิธีการกำจัดของเสีย
- คำแนะนำ ต้องไม่ทิ้งไปพร้อมกับขยะจากบ้านเรือนอย่าปล่อยให้ผลิตภัณฑ์เข้าถึงระบบระบายน้ำเสีย
- ภาชนะบรรจุที่ยังไม่ได้สร้างทำความสะอาด
- คำแนะนำ การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ

### 14 ข้อมูลการขนส่ง

· 14.1 เลขที่ UN	UN3082
· ADR, IMDG, IATA	
· 14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))
· ADR	
· IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))
· 14.3 ชั้นเรียนอันตรายจากการขนส่ง	
· ADR, IMDG, IATA	
· ประเภท	9 สารอันตรายและสิ่งของเบ็ดเตล็ด
· ฉลากสิ่งที่เป็นอันตราย	9
· 14.4 กลุ่มของภาชนะบรรจุ	
· ADR, IMDG, IATA	III
· 14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม	
· สารที่เป็นพิษต่อทะเล	สัญลักษณ์ (ปลาและต้นไม้)
· เฉพาะการติดฉลาก (ADR):	สัญลักษณ์ (ปลาและต้นไม้)
· เฉพาะการติดฉลาก (IATA):	สัญลักษณ์ (ปลาและต้นไม้)
· 14.6 การป้องกันพิเศษล่วงหน้าสำหรับผู้ใช้	คำเตือน !: สารอันตรายและสิ่งของเบ็ดเตล็ด
· รหัสความอันตราย:	90
· หมายเลข EMS	F-A,S-F
· Stowage Category	A
· 14.7 การขนส่งขนาดใหญ่ตามภาคผนวกของของ MARPOL73/78 และรหัส IBC	ไม่สามารถใช้ได้

(ต่อหน้า 7)

# แผ่นข้อมูลความปลอดภัย

## มาตรฐาน GHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อที่หน้า 6)

#### · 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 -

##### · 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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

### 15 ข้อมูลด้านกฎข้อบังคับ

· 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม

· บัญชีรายชื่อวัตถุอันตราย

#### · กรมวิชาการเกษตร

ไม่มีส่วนผสมใดอยู่ในรายการ

#### · กรมประมง

ไม่มีส่วนผสมใดอยู่ในรายการ

#### · กรมปศุสัตว์

ไม่มีส่วนผสมใดอยู่ในรายการ

#### · อาหารและยา

ไม่มีส่วนผสมใดอยู่ในรายการ

#### · กรมโรงงานอุตสาหกรรม

ไม่มีส่วนผสมใดอยู่ในรายการ

#### · กรมธุรกิจพลังงาน

ไม่มีส่วนผสมใดอยู่ในรายการ

· 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

### 16 ข้อมูลอื่นๆ

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

#### · วลีที่เกี่ยวข้องกับ

H315 เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง

H317 อาจเป็นสาเหตุให้เกิดผิวหนังแสดงอาการแพ้

H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา

H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบต่อระยะยาว

(ต่อที่หน้า 8)

# แผ่นข้อมูลความปลอดภัย

## มาตรฐานGHS

วันที่พิมพ์ 2020.04.13

การปรับปรุงใหม่ : 2020.04.13

### ชื่อทางการค้า EPO-FIX EMBEDDING RESIN

(ต่อหน้า 7)

#### · 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

-TH-

**Güvenlik bilgi formu**  
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 13.04.2020

Form No.: 1232-A

Yeniden düzenleme tarihi: 13.04.2020

### Bölüm 1: Maddenin/karışımın ve şirketin/dağıtıcının tanımı

- **1.1 Madde/Karışım kimliği**
- **Ticari adı: EPO-FIX EMBEDDING RESIN**
- **Mal numarası: 1232-A, 1232-R**
- **1.2 Maddenin veya karışımın ilgili tanımlanmış kullanımları ve tavsiye edilmeyen kullanımları**  
Daha başka önemli bilgi mevcut değildir.
- **Maddenin Kullanımı / Hazırlanması** Laboratuarda kullanılan kimyasal maddeler
- **1.3 Güvenlik bilgi formu sağlayıcısının detayları**
- **Üretici / Teslimatı yapan:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- **Güvenlik hakkında bilgiler veren kesim: Product safety department**
- **1.4 Acil telefon numarası**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### Bölüm 2: Zararların tanımı

- **2.1 Madde veya karışımın sınıflandırılması**
- **Düzenlemeye göre sınıflandırma (EC) No 1272/2008**



GHS09 Çevre

Aquatic Chronic 2 H411 Sucul ortamda uzun süre kalıcı, toksik etki.



GHS07

Skin Irrit. 2 H315 Cilt tahrişine yol açar.  
 Eye Irrit. 2 H319 Ciddi göz tahrişine yol açar.  
 Skin Sens. 1 H317 Alerjik cilt reaksiyonlarına yol açar.

- **2.2 Etiket bilgileri**
- **Yönetmelik (EC) No 1272/2008'e göre etiketleme**  
Ürün SEA yönetmeliğine göre sınıflandırılmış ve etiketlenmiştir.
- **Zararlılık İşaretleri**



GHS07



GHS09

- **Uyarı Kelimesi Dikkat**
- **Etiketlendirme için tehlikeyi belirleyici bileşenler:**  
reaksiyon ürünü: bisfenol-A-epiklorohidrin; epoksi reçinesi (sayıca ortalama molekül ağırlığı ≤ 700) oksiran, mono[(C12-14-alkiloksi)metil] türevleri

(Devamı sayfa 2 'da)

**Güvenlik bilgi formu**  
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(Sayfa 1 'nin devamı)

**· Zararlılık İfadesi**

- H315 Cilt tahrişine yol açar.  
H319 Ciddi göz tahrişine yol açar.  
H317 Alerjik cilt reaksiyonlarına yol açar.  
H411 Sucul ortamda uzun süre kalıcı, toksik etki.

**· Önlem İfadesi**

- P261 Tozunu/dumanını/gazını/sisini/buharını/spreyini solumaktan kaçının.  
P273 Çevreye verilmemesinden kaçın.  
P280 Koruyucu eldiven/koruyucu gözlük/koruyucu maske kullanın.  
P305+P351+P338 GÖZ İLE TEMASI HALİNDE: Su ile birkaç dakika dikkatlice durulayın. Takılı ve yapması kolaysa, kontak lensleri çıkartın. Durulamaya devam edin.  
P333+P313 Ciltte tahriş veya kaşıntı söz konusu ise: Tıbbi yardım/müdahale alın.  
P501 İçeriği/kabı yerel/bölgesel/ulusal/uluslararası mevzuata uygun şekilde bertaraf edin.

**· 2.3 Diğer zararlar**

- **PBT ve vPvB değerlendirmesi sonuçları**  
· **PBT:** Uygulanamaz.  
· **vPvB:** Uygulanamaz.

**Bölüm 3: Bileşimi/İçindekiler hakkında bilgi****· 3.2 Karışımlar**

- **Tarifi:** Tehlikesiz katkıları ihtiva eden ve aşağıda belirtilen maddelerden oluşan karışım.

**· İhtiva ettiği tehlikeli maddeler:**

CAS: 25068-38-6 NLP: 500-033-5	reaksiyon ürünü: bisfenol-A-epiklorohidrin; epoksi reçinesi (sayıca ortalama molekül ağırlığı ≤ 700) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	%>50-≤100
CAS: 68609-97-2 EINECS: 271-846-8	oksiran, mono[(C12-14-alkiloksi)metil] türevleri ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	%>25-≤50

- **Ek uyarılar:** belirtilmiş olan tehlike işaretlerinin metnini Bölüm 16'dan alınız

**Bölüm 4: İlk yardım önlemleri****· 4.1 İlk yardım önlemlerinin tanıtımı****· Teneffüs ettikten sonra:**

Bolca temiz hava alması sağlanarak her ihtimale karşı doktora başvurulmalıdır.

Baygınlık halinde yatırılması ve taşınması sabit yan pozisyonda olmalıdır.

- **Cilde temas ettikten sonra:** Derhal su ve sabunla yıkayarak iyice durulayınız.

**· Gözlere temas ettikten sonra:**

Gözleri, gözkapakları açık bir şekilde birkaç dakika süreyle akan suyun altına tutunuz. Şikâyetlerin devam etmesi halinde doktora başvurunuz.

- **Yuttuktan sonra:** Şikâyetlerin devamı halinde doktora başvurunuz.

- **4.2 Akut ve sonradan görülen en önemli belirtiler ve etkiler** Daha başka önemli bilgi mevcut değildir.

- **4.3 Acil tıbbi müdahale ve özel tedavi gereği için işaretler** Daha başka önemli bilgi mevcut değildir.

TR

(Devamı sayfa 3 'da)

**Güvenlik bilgi formu**  
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(Sayfa 2 'nin devamı)

### Bölüm 5: Yangınla mücadele önlemleri

- **5.1 Yangın söndürücüler**
- **Elverişli söndürücü maddeler:** Yangın söndürme önlemlerini çevreye uydurunuz.
- **5.2 Madde veya karışımdan kaynaklanan özel zararlar** Daha başka önemli bilgi mevcut değildir.
- **5.3 Yangın söndürme ekipleri için tavsiyeler**
- **Özel koruyucu teçhizat:** Özel önlemlerin alınması gerekmez.

### Bölüm 6: Kaza sonucu yayılma önlemleri

- **6.1 Kişisel önlemler, koruyucu ekipman ve acil müdahale planı** Gerekli değildir.
- **6.2 Çevresel önlemler**  
Sulara ya da kanalizasyona karışması halinde yetkili resmi makamlara haber veriniz.  
Kanalizasyona/Yüzeysel suya/Yeraltı suyuna karışmasını önleyiniz.
- **6.3 Kontrol altında tutma ve temizleme için yöntem ve malzemeler**  
Sıvı bağlayıcı malzemeyle (Kum, diyatomit, asit bağlayıcı, genel bağlayıcı, un halinde testere talaşı) ile eminiz.  
Yeterli havalandırma sağlayınız.
- **6.4 Diğer bölümlere atıflar**  
Güvenli kullanım ile ilgili bilgileri 7. bölümden alınız.  
Kişisel koruyucu teçhizat ile ilgili bilgileri 8. bölümden alınız.  
Tasfiye ile ilgili bilgileri 13. bölümden alınız.

### Bölüm 7: Elleçleme ve depolama

- **7.1 Güvenli elleçleme için önlemler**  
Çalışılan yerin iyi havalanmasını / havanın iyi emilmesini sağlayınız.  
Aerosol (bir gazın içinde sis şeklinde dağılmış sıvı) oluşumunu önleyiniz.
- **Yangın ve patlamadan korunmak için uyarılar:** Özel önlemlerin alınması gerekmez.
- **7.2 Birlikte bulunmaması gereken maddeleri de içeren güvenli depolama koşulları**
- **Depolama:**
- **Depolarda ve kaplarda aranan özellikler:** Belirli şartlar aranmaz.
- **Birarada depolama ile ilgili uyarılar:** Gerekli değil.
- **Depolama şartları ile ilgili diğer bilgiler:** Kabı sızdırmayacak şekilde kapalı tutunuz.
- **7.3 Belirli son kullanımlar** Daha başka önemli bilgi mevcut değildir.

### Bölüm 8: Maruz kalma kontrolü/kişisel korunma

- **Teknik tesisatların şekillendirilmesi ile ilgili ek bilgiler:** Başka bilgi yoktur, madde 7 'den bakınız.
- **8.1 Kontrol parametreleri**
- **Çalışma yeri ile ilgili, kontrol edilmesi gereken sınır değerleri olan bileşenler:**  
Ürün, çalışılan mahal ile ilgili ve kontrol edilmesi gereken sınır değerleri olan maddeleri önemli miktarda ihtiva etmemektedir.
- **Ek uyarılar:** Düzenlendiği tarihte geçerli listeler esas alınmıştır.
- **8.2 Maruz kalma kontrolü**
- **Kişisel koruyucu teçhizat:**
- **Genel koruyucu ve sıhhi önlemler:**  
Gıda maddelerinden, içeceklerden ve yem maddelerinden uzak tutunuz.

(Devamı sayfa 4 'da)



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(Sayfa 3 'nin devamı)

Kirlenmiş, sıvı bulaşmış giyim eşyalarını derhal çıkartınız.

Molalardan önce ve mesai sonunda ellerinizi yıkayınız.

Gözlerinize ve cildinize değmesinden kaçınınız.

• **Nefes koruyucu önlemler:**

Kısa süreli ya da düşük ölçüde olumsuz tesir altında kalındığında nefes filtre aleti, yoğun bir şekilde ya da uzun süre etkisi altında kalındığında çevredeki havadan bağımsız olan nefes koruyucu cihaz kullanınız.

• **Elleri koruyucu:**



Koruyucu eldivenler

Eldiven malzemesi ürün / malzeme / hazırlanan madde ile ilgili olarak geçirmez ve dayanıklı olmalıdır.

Testlerin yapılmamış olması nedeni ile ürün / hazırlanmış madde / kimyasal karışım için lâzım olan eldiven imalatında kullanılması gereken malzeme ile ilgili herhangi bir tavsiye yapılamamaktadır.

Eldiven imalatı için kullanılan malzemelerin seçiminde delinme sürelerinin, geçirgenlik oranlarının ve bozulmanın göz önüne alınması gereklidir.

• **Eldiven malzemesi**

Uygun eldivenin seçiminde yalnız imalat malzemesi değil, aynı zamanda diğer kalite özellikleri de dikkate alınmalıdır ve bunlar imalatçıdan imalatçıya değişiklik göstermektedir. Her ürün birçok malzemenin birleşiminden meydana geldiği için eldivenlerin dayanıklılığı önceden hesaplanamamaktadır ve dolayısı ile her eldiven kullanılmadan önce kontrole tabi tutulmalıdır.

• **Eldiven malzemesine nüfuz etme süresi**

Kesin delinme (aşınma) süresi eldiven imalatçısından öğrenilmeli ve bu sürelerle riayet edilmelidir.

• **Gözleri koruyucu:**



Kenarları tam kapatan koruyucu gözlük

### Bölüm 9: Fiziksel ve kimyasal özellikler

• **9.1 Temel fiziksel ve kimyasal özellikler hakkında bilgi**

• Genel bilgiler

• Görünüm

• <b>Biçim:</b>	Sıvı
• <b>Renk:</b>	Açık sarı
• <b>Koku:</b>	Kokusuz
• <b>Koku eşiği</b>	Belirli değil.

• **pH - değeri:** Belirli değil.

• **Durum değişikliği**

• <b>Erime noktası/donma noktası</b>	Belirlenmemiştir.
• <b>İlk kaynama noktası ve kaynama aralığı</b>	Belirlenmemiştir.

• **Parlama noktası** 177 °C

• **Alevlenirlik (katı, gaz)** Uygulanamaz.

• **Bozunma sıcaklığı** Belirli değil.

• **Kendiliğinden tutuşma sıcaklığı** Ürün kendiliğinden tutuşmaz niteliktedir.

(Devamı sayfa 5 'da)

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(Sayfa 4 'nin devamı)

· <b>Patlayıcı özellikler</b>	Ürünün patlama tehlikesi yoktur.
· <b>Patlama sınırları:</b>	
<b>Alt:</b>	Belirli değil.
<b>Üst:</b>	Belirli değil.
· <b>Buhar basıncı:</b>	Belirli değil.
· <b>Yoğunluk 20 °C'de:</b>	1,1 g/cm <sup>3</sup>
· <b>Bağıl yoğunluk</b>	Belirli değil.
· <b>Buhar yoğunluğu</b>	Belirli değil.
· <b>Buharlaştırma hızı</b>	Belirli değil.
· <b>Çözülme kabiliyeti / karışma kabiliyeti suyla:</b>	Karıştırılmaz ya da düşük ölçüde karıştırılabilir.
· <b>Dağılım katsayısı: n-oktanol/su</b>	Belirli değil.
· <b>Akışkanlık</b>	
<b>Dinamik:</b>	Belirli değil.
<b>Kinematik:</b>	Belirli değil.
· <b>Çözücü madde oranı:</b>	
<b>VOC (CE)</b>	0,00 %
· <b>Katı madde oranı:</b>	%0.0
· <b>9.2 Diğer bilgiler</b>	Daha başka önemli bilgi mevcut değildir.

### Bölüm 10: Kararlılık ve tepkime

- **10.1 Tepkime** Daha başka önemli bilgi mevcut değildir.
- **10.2 Kimyasal kararlılık**
- **Termik ayrışma / kaçınılması gereken şartlar:** Usulüne uygun şekilde kullanıldığında ayrışma olmaz.
- **10.3 Zararlı reaksiyon olasılığı** Tehlikeli reaksiyonları duyulmamıştır.
- **10.4 Kaçınılması gereken durumlar** Daha başka önemli bilgi mevcut değildir.
- **10.5 Uyumsuz malzemeler** Daha başka önemli bilgi mevcut değildir.
- **10.6 Zararlı bozunma ürünleri** Ayrışmada oluşan tehlikeli ürünler duyulmamıştır.

### Bölüm 11: Toksikolojik bilgiler

- **11.1 Toksikolojik etkiler hakkında bilgi**
- **Akut toksisite** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Asli tahriş edici etkisi:**
- **Cilt aşınması/tahrişi**  
Cilt tahrişine yol açar.
- **Ciddi göz hasarları/tahrişi**  
Ciddi göz tahrişine yol açar.
- **Solunum yolları veya cilt hassaslaşması**  
Alerjik cilt reaksiyonlarına yol açar.
- **Aşağıdaki grupların potansiyel etkilerine dair bilgiler:**
- **CMR-etkileri (kanser üretici, irsiyet değiştirici ve üremeyi tehdit edici etki)**
- **Eşey hücre mutajenitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Kanserojenite** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

(Devamı sayfa 6 'da)

**Güvenlik bilgi formu**  
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(Sayfa 5 'nin devamı)

- **Üreme sistemi toksisitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **BHOT - tek maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **BHOT - tekrarlı maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Aspirasyon zararı** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

**Bölüm 12: Ekolojik bilgiler**

- **12.1 Toksikite**
- **Su toksisitesi:** Daha başka önemli bilgi mevcut değildir.
- **12.2 Kalıcılık ve bozunabilirlik** Daha başka önemli bilgi mevcut değildir.
- **12.3 Biyobirikim potansiyeli** Daha başka önemli bilgi mevcut değildir.
- **12.4 Toprakta hareketlilik** Daha başka önemli bilgi mevcut değildir.
- **Ökotoksik etkileri:**
- **Not:** Balıklar için zehirli
- **Diğer ekolojik uyarılar:**
- **Genel uyarılar:**  
 Suyu tehdit sınıfı 2 (:): suyu tehdit edicidir  
 Yeraltı suyuna, duran ve akan sulara ve kanalizasyona ulaşmasını önleyiniz.  
 Cüzi miktarların bile yeraltına akması halinde içme suyunu tehdit eder.  
 Duran ve akan sulara balıklar ve plankton için de zehirlidir.  
 Suda yaşayan organizmalar için zehirlidir
- **12.5 PBT ve vPvB değerlendirmesinin sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.
- **12.6 Diğer olumsuz etkiler** Daha başka önemli bilgi mevcut değildir.

**Bölüm 13: Bertaraf etme bilgileri**

- **13.1 Atık işleme yöntemleri**
- **Tavsiye:** Ev çöpüyle beraber tasfiye edilmesi yasaktır. Kanalizasyona ulaşmasını önleyiniz.
- **Temizlenmemiş ambalajlar:**
- **Tavsiye:** Tasfiyesi resmi makamların yönetmeliklerine göre yapılır.

**Bölüm 14: Taşımacılık bilgisi**

- |                                                                                                                 |                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN Numarası</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="text-align: center;">UN3082</p>                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN uygun taşımacılık ismi</b></li> <li>· <b>ADR</b></li> </ul> | <p>3082 ÇEVREYE ZARARLI MADDE, SIVI, B.B.B.<br/>       (reaksiyon ürünü: bisfenol-A-epiklorohidrin; epoksi reçinesi (sayıca ortalama molekül ağırlığı ≤ 700))</p>                                                   |
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>                                                 | <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE,<br/>       LIQUID, N.O.S. (reaction product: bisphenol-A-<br/>       (epichlorhydrin) epoxy resin (number average<br/>       molecular weight ≤ 700)), MARINE POLLUTANT</p> |
| <ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>                                                 | <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE,<br/>       LIQUID, N.O.S. (reaction product: bisphenol-A-<br/>       (epichlorhydrin) epoxy resin (number average</p>                                                       |

(Devamı sayfa 7 'da)

**Güvenlik bilgi formu**  
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,  
Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,  
Madde 27“ hükümlerine uygun düzenlenmiştir


Baskı tarihi: 13.04.2020

Form No.: 1232-A

Yeniden düzenleme tarihi: 13.04.2020

**Ticari adı: EPO-FIX EMBEDDING RESIN**

(Sayfa 6'nın devamı)

.	molecular weight $\leq$ 700))
<ul style="list-style-type: none"> <li>· 14.3 Taşımacılık zararları</li> <li>· ADR, IMDG, IATA</li> </ul>  <ul style="list-style-type: none"> <li>· sınıfı</li> <li>· Tehlike pusulası</li> </ul>	<p>9 Muhtelif tehlikeli maddeler ve nesnelər</p> <p>9</p>
<ul style="list-style-type: none"> <li>· 14.4 Ambalaj grubu</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>III</p>
<ul style="list-style-type: none"> <li>· 14.5 Çevresel zararlar</li> <li>· Marine pollutant:</li> <li>· Etiketleme özel (ADR):</li> <li>· Etiketleme özel (IATA):</li> </ul>	<p>Sembol (balık ve ağaç)</p> <p>Sembol (balık ve ağaç)</p> <p>Sembol (balık ve ağaç)</p>
<ul style="list-style-type: none"> <li>· 14.6 Kullanıcılar için özel önlemler</li> <li>· Tehlike Tanım No. (Kemler (tehlike) sayısı):</li> <li>· EMS - numarası:</li> <li>· Stowage Category</li> </ul>	<p>Uyarı: Muhtelif tehlikeli maddeler ve nesnelər</p> <p>90</p> <p>F-A,S-F</p> <p>A</p>
<ul style="list-style-type: none"> <li>· 14.7 MARPOL 73/78 EK II ve IBC Koduna göre Toplu Taşımacılık</li> </ul>	<p>Uygulanamaz.</p>
<ul style="list-style-type: none"> <li>· Nakliyat/diğer bilgiler:</li> </ul>	
<ul style="list-style-type: none"> <li>· ADR</li> <li>· Sınırlı Miktarlar</li> <li>· İstisnai miktarlar (EQ)</li> <li>· Taşıma kategorisi</li> <li>· Tünel kısıtlama kodu</li> </ul>	<p>5L</p> <p>Kod: E1</p> <p>İç ambalaj başına maksimum net miktar: 30 ml</p> <p>Dış ambalaj başına maksimum net miktar: 1000 ml</p> <p>3</p> <p>-</p>
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· UN "Model Düzenleme":</li> </ul>	<p>UN 3082 ÇEVREYE ZARARLI MADDE, SIVI, B.B.B. (REAKSİYON ÜRÜNÜ: BISFENOL - A - EPIKLOROHİDRİN; EPOKSI REÇİNESİ (SAYICA ORTALAMA MOLEKÜL AĞIRLIĞI <math>\leq</math> 700)), 9, III</p>

**Bölüm 15: Mevzuat bilgisi**

· 15.2 Kimyasal güvenlik değerlendirilmesi: Bir Kimyasal güvenlik değerlendirilmesi yapılmamıştır.

TR

(Devamı sayfa 8 'da)

**Güvenlik bilgi formu**  
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,**  
**Değerlendirilmesi, İzni Ve Kısıtlanması Hakkında Yönetmelik,**  
**Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 13.04.2020

Form No.: 1232-A

Yeniden düzenleme tarihi: 13.04.2020

**Ticari adı: EPO-FIX EMBEDDING RESIN**

(Sayfa 7 'nin devamı)

**Bölüm 16: Diğer bilgiler**

Veriler bugünkü bilgi durumumuza istinat etmektedir, ancak ürün özellikleri ile ilgili teminat teşkil etmezler ve akdî bir hukuki ilişki tesis etmezler.

**Önemli terkipleri**

H315 Cilt tahrişine yol açar.

H317 Alerjik cilt reaksiyonlarına yol açar.

H319 Ciddi göz tahrişine yol açar.

H411 Sucul ortamda uzun süre kalıcı, toksik etki.

**Kısaltmalar ve:**

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Cilt aşınması/tahrişi – Kategori 2

Eye Irrit. 2: Ciddi göz hasarı/göz tahrişi – Kategori 2

Skin Sens. 1: Cilt hassaslaştırıcılığı – Kategori 1

Aquatic Chronic 2: Sucul ortam için zararlı - uzun süreli sucul zararlılık – Kategori 2

TR

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 13.04.2020

Revisión: 13.04.2020

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

- **1.1 Identificador del producto**
- **Nombre comercial:** EPO-FIX EMBEDDING RESIN
- **Número del artículo:** 1232-A, 1232-R
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**  
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com
- **Aname**  
C/ Perez Galdos no. 2  
28693 Quijorna  
Madrid, Spain  
Tel: +34.91.816.89.50  
Fax: +34.91.816.85.94  
email: ventas@aname.es
- **Área de información:** Product safety department
- **1.4 Teléfono de emergencia:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS09 medio ambiente

Aquatic Chronic 2 H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.  
 Eye Irrit. 2 H319 Provoca irritación ocular grave.  
 Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

- **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.

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· **Pictogramas de peligro**

GHS07 GHS09

· **Palabra de advertencia** Atención· **Componentes peligrosos a indicar en el etiquetaje:**

producto de reacción: bisfenol-A-epiclorhidrina resinas epoxi (peso molecular medio  $\leq 700$ )  
oxirano, mono[(C12-14-alkiloxi)metil] derivados

· **Indicaciones de peligro**

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· **Consejos de prudencia**

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

P273 Evitar su liberación al medio ambiente.

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

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

P333+P313 En caso de irritación o erupción cutánea: Consultar a un médico.

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: 25068-38-6 NLP: 500-033-5	producto de reacción: bisfenol-A-epiclorhidrina resinas epoxi (peso molecular medio $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxirano, mono[(C12-14-alkiloxi)metil] derivados ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

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

### SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**· **En caso de inhalación del producto:**

Suministrar 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.

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- **En caso de con los ojos:**  
Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.
- **En caso de ingestión:** Consultar un médico si los trastornos persisten.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**  
No existen más datos relevantes disponibles.

### SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

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

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:**  
Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.  
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).  
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**  
Ver capítulo 7 para mayor información sobre una manipulación segura.  
Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** No se requieren medidas especiales.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

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

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

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- **8.1 Parámetros de control**
- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**  
El producto no contiene cantidades relevantes de sustancias con valores límite que exijan un control en el puesto de trabajo.
- **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 y la piel.
- **Protección respiratoria:**  
Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.
- **Protección de manos:**



Guantes de protección

- El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.  
Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.  
Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.
- **Material de los guantes**  
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.
  - **Tiempo de penetración del material de los guantes**  
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.
  - **Protección de ojos:**



Gafas de protección herméticas

## SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**
- **Datos generales**
- **Aspecto:**
- **Forma:** Líquido
- **Color:** Amarillo claro
- **Olor:** Inodoro
- **Umbral olfativo:** No determinado.
- **valor pH:** No determinado.

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· <b>Cambio de estado</b> Punto de fusión/punto de congelación:	Indeterminado.
Punto inicial de ebullición e intervalo de ebullición:	Indeterminado.
· <b>Punto de inflamación:</b>	177 °C
· <b>Inflamabilidad (sólido, gas):</b>	No aplicable.
· <b>Temperatura de descomposición:</b>	No determinado.
· <b>Temperatura de auto-inflamación:</b>	El producto no es autoinflamable.
· <b>Propiedades explosivas:</b>	El producto no es explosivo.
· <b>Límites de explosión:</b> Inferior:	No determinado.
Superior:	No determinado.
· <b>Presión de vapor:</b>	No determinado.
· <b>Densidad a 20 °C:</b>	1,1 g/cm <sup>3</sup>
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Tasa de evaporación:</b>	No determinado.
· <b>Solubilidad en / miscibilidad con agua:</b>	Poco o no mezclable.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b> Dinámica:	No determinado.
Cinemática:	No determinado.
· <b>Concentración del disolvente:</b> VOC (CE)	0,00 %
· <b>Contenido de cuerpos sólidos:</b>	0,0 %
· <b>9.2 Otros datos</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
Provoca irritación cutánea.

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- **Lesiones o irritación ocular graves**  
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**  
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**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Efectos ecotóxicos:**
- **Observación:** Tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 2 (autoclasiicación): peligroso para el agua  
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.  
Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.  
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.  
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.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN3082
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 3082 SUSTANCIA LÍQUIDA PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P. (producto de reacción:

( se continua en página 7 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 13.04.2020

Revisión: 13.04.2020

Nombre comercial: EPO-FIX EMBEDDING RESIN

( se continua en página 6 )

·	bisfenol-A-epiclorhidrina resinas epoxi (peso molecular medio $\leq 700$ )
· <b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )), MARINE POLLUTANT
· <b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ ))

## · 14.3 Clase(s) de peligro para el transporte

· ADR, IMDG, IATA



· Clase

9 Materias y objetos peligrosos diversos

· Etiqueta

9

## · 14.4 Grupo de embalaje

· ADR, IMDG, IATA

III

## · 14.5 Peligros para el medio ambiente:

· Contaminante marino:

Símbolo (pez y árbol)

· Marcado especial (ADR):

Símbolo (pez y árbol)

· Marcado especial (IATA):

Símbolo (pez y árbol)

## · 14.6 Precauciones particulares para los usuarios

Atención: Materias y objetos peligrosos diversos

· Número de identificación de peligro (Número Kemler):

90

· Número EMS:

F-A,S-F

· Stowage Category

A

## · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC

No aplicable.

## · Transporte/datos adicionales:

· ADR

· Cantidades limitadas (LQ)

5L

· Cantidades exceptuadas (EQ)

Código: E1

Cantidad neta máxima por envase interior: 30 ml

Cantidad neta máxima por embalaje exterior: 1000 ml

· Categoría de transporte

3

· Código de restricción del túnel

-

· 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

( se continua en página 8 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 13.04.2020

Revisión: 13.04.2020

Nombre comercial: EPO-FIX EMBEDDING RESIN

( se continua en página 7 )

- |                                        |                                                                                                                                                                               |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| · "Reglamentación Modelo" de la UNECE: | UN 3082 SUSTANCIA LÍQUIDA PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P. (PRODUCTO DE REACCIÓN: BISFENOL-A-EPICLORHIDRINA RESINAS EPOXI (PESO MOLECULAR MEDIO $\leq 700$ )), 9, III |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **Categoría Seveso E2** Peligroso para el medio ambiente acuático
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior** 200 t
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior** 500 t
- **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

H315 Provoca irritación cutánea.

H317 Puede provocar una reacción alérgica en la piel.

H319 Provoca irritación ocular grave.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

#### · 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2

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

Skin Sens. 1: Sensibilización cutánea – Categoría 1

Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2

# Säkerhetsdatablad

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

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

- **1.1 Produktbeteckning**
- **Handelsnamn:** EPO-FIX EMBEDDING RESIN
- **Artikelnummer:** 1232-A, 1232-R
- **1.2 Relevanta identifierade användningar av ämnet eller blandningen och användningar som det avråds från**  
Ingen ytterligare relevant information finns till förfogande.
- **Ämnets användning / tillredningen** Laboratoriekemikalier
- **1.3 Närmare upplysningar om den som tillhandahåller säkerhetsdatablad**
- **Tillverkare/leverantör:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Område där upplysningar kan inhämtas:** Product safety department
- **1.4 Telefonnummer för nödsituationer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### AVSNITT 2: Farliga egenskaper

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



GHS09 miljöfarligt

Aquatic Chronic 2 H411 Giftigt för vattenlevande organismer med långtidseffekter.



GHS07

Skin Irrit. 2            H315 Irriterar huden.  
Eye Irrit. 2            H319 Orsakar allvarlig ögonirritation.  
Skin Sens. 1            H317 Kan orsaka allergisk hudreaktion.

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



GHS07 GHS09

- **Signalord** Varning
- **Riskbestämmande komponenter för etikettering:**  
reaktionsprodukt av bisfenol A och epiklorhydrin med medelmolekylvikt  $\leq 700$   
oxiran, mono[(C12-14-alkyloxi)metyl]derivat
- **Faroangivelser**  
H315 Irriterar huden.  
H319 Orsakar allvarlig ögonirritation.

(Fortsättning på sida 2)

# Säkerhetsdatablad

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

### Handelsnamn: EPO-FIX EMBEDDING RESIN

(Fortsättning från sida 1)

H317 Kan orsaka allergisk hudreaktion.

H411 Giftigt för vattenlevande organismer med långtidseffekter.

· **Skyddsangivelser**

P261 Undvik att inandas damm/rök/gaser/dimma/ångor/sprej.

P273 Undvik utsläpp till miljön.

P280 Använd skyddshandskar / ögonskydd / ansiktsskydd.

P305+P351+P338 VID KONTAKT MED ÖGONEN: Skölj försiktigt med vatten i flera minuter. Ta ur eventuella kontaktlinser om det går lätt. Fortsätt att skölja.

P333+P313 Vid hudirritation eller utslag: Sök läkarhjälp.

P501 Innehållet / behållaren avfallshanteras enligt lokala / regionala / nationella / internationella föreskrifter.

· **2.3 Andra faror**

· **Resultat av PBT- och vPvB-bedömningen**

· **PBT:** Ej användbar.

· **vPvB:** Ej användbar.

### AVSNITT 3: Sammansättning/information om beståndsdelar

· **3.2 Kemisk karakterisering: Blandningar**

· **Beskrivning:** Blandning bestående av nedan upplistade ämnen med ofarliga tillsatser.

· **Farliga ingredienser:**

CAS: 25068-38-6 NLP: 500-033-5	reaktionsprodukt av bisfenol A och epiklorhydrin med medelmolekylvikt $\leq 700$ ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>50-≤100%
CAS: 68609-97-2 EINECS: 271-846-8	oxiran, mono[(C12-14-alkyloxi)metyl]derivat ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	>25-≤50%

· **Ytterligare hänvisningar:** De angivna farohänvisningarnas ordalydelse framgår av kapitel 16.

### AVSNITT 4: Åtgärder vid första hjälpen

· **4.1 Beskrivning av åtgärder vid första hjälpen**

· **Vid inandning:**

Riklig tillförsel av friskluft, kontakta läkare för säkerhets skull.

Vid medvetslöshet lägg och transportera patient stabilt i framstupa sidoläge.

· **Vid kontakt med huden:** Tvätta omedelbart med vatten och tvål och spola därefter noggrant.

· **Vid kontakt med ögonen:**

Spola ögonen öppna i flera minuter under rinnande vatten. Om besvär kvarstår, kontakta läkare.

· **Vid förtäring:** Om besvär kvarstår, kontakta läkare.

· **4.2 De viktigaste symptomen och effekterna, både akuta och fördröjda**

Ingen ytterligare relevant information finns till förfogande.

· **4.3 Angivande av omedelbar medicinsk behandling och särskild behandling som eventuellt krävs**

Ingen ytterligare relevant information finns till förfogande.

### AVSNITT 5: Brandbekämpningsåtgärder

· **5.1 Släckmedel**

· **Lämpliga släckningsmedel:** Anpassa brandbekämpningsåtgärderna till omgivningen.

· **5.2 Särskilda faror som ämnet eller blandningen kan medföra**

Ingen ytterligare relevant information finns till förfogande.

(Fortsättning på sida 3)



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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 2)

- **5.3 Råd till brandbekämpningspersonal**
- **Speciell skyddsutrustning:** Inga speciella åtgärder krävs.

### AVSNITT 6: Åtgärder vid oavsiktliga utsläpp

- **6.1 Personliga skyddsåtgärder, skyddsutrustning och åtgärder vid nödsituationer** Erfordras ej.
- **6.2 Miljöskyddsåtgärder:**  
När produkten kommit in i vattendrag eller avloppsnät, skall vederbörande myndigheter underrättas.  
Förhindra produkten att tränga ner i avloppsnät/ytvatten/grundvatten.
- **6.3 Metoder och material för inneslutning och sanering:**  
Sug upp med vätskebindande material (sand, kiselgur, syrabindemedel, universalbindemedel, sågspån).  
Se till att ventilationen är tillräcklig.
- **6.4 Hänvisning till andra avsnitt**  
Information beträffande säker hantering se kapitel 7.  
Information beträffande personlig skyddsutrustning se kapitel 8.  
Information beträffande avfallshantering se kapitel 13.

### AVSNITT 7: Hantering och lagring

- **7.1 Försiktighetsmått för säker hantering**  
Sörj för god ventilation/utsug på arbetsplatsen.  
Undvik bildning av aerosol.
- **Hänvisningar beträffande brand- och explosionsskydd:** Inga speciella åtgärder krävs.
- **7.2 Förhållanden för säker lagring, inklusive eventuell oförenlighet**
- **Lagring:**
- **Krav på lagerutrymmen och behållare:** Inga speciella krav.
- **Hänvisningar beträffande sammanlagring:** Erfordras ej.
- **Ytterligare uppgifter till lagringsvillkoren:** Förvara behållaren tätt tillsluten.
- **7.3 Specifik slutanvändning** Ingen ytterligare relevant information finns till förfogande.

### AVSNITT 8: Begränsning av exponeringen/personligt skydd

- **Ytterligare hänvisningar beträffande utformning av tekniska anläggningar:** Inga övriga uppgifter, se punkt 7.
- **8.1 Kontrollparametrar**
- **Ämnen med yrkeshygieniska gränsvärden som bör övervakas:**  
Produkten innehåller inga relevanta mängder av ämnen med arbetsplatsrelaterade gränsvärden som skall övervakas.
- **Ytterligare hänvisningar:** De vid framställningen gällande listorna har använts som utgångspunkt.
- **8.2 Begränsning av exponeringen**
- **Personlig skyddsutrustning:**
- **Allmänna skydds- och hygienåtgärder:**  
Undvik kontakt med livsmedel, drycker och fodermedel.  
Nedsmutsade, indränkta klädesplagg skall omedelbart tas av.  
Tvätta händerna före raster och efter arbetet.  
Undvik kontakt med ögonen och huden.
- **Andningsskydd:**  
Vid kortvarig eller ringa belastning - använd andningsfilterutrustning; vid intensiv resp. längre exponering - använd andningsskyddsutrustning som är oberoende av omgivningsluften.

(Fortsättning på sida 4)



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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 3)

**· Handskydd:**

Skyddshandskar

Handskmaterialet måste vara tätt och beständigt mot produkt/ämne/tillredning.

Handskmaterialrekommendationer kan inte ges för produkt/tillredning/kemikalielösning, då inga tester genomförts.

Val av handskmaterial beaktande penetrationstider, permeationskvoter och degradation.

**· Handskmaterial**

Val av lämplig handske är inte enbart beroende av material utan även av andra kvalitetskriterier och varierar från en tillverkare till nästa. Då produkten bereds av flera material, kan handskmaterialets beständighet inte förutses och måste därför kontrolleras före användningen.

**· Handskmaterialets penetreringstid**

Exakt penetreringstid fastställs av skyddshandskarnas tillverkare och skall beaktas.

**· Ögonskydd:**

Tättslutande skyddsglasögon

### AVSNITT 9: Fysikaliska och kemiska egenskaper

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

<b>Form:</b>	Vätska
<b>Färg:</b>	Ljusedgul
<b>Lukt:</b>	Luktfri
<b>Lukttröskel:</b>	Ej bestämd.

**· pH-värde:** Ej bestämd.

**· Tillståndsändring**

<b>Smältpunkt/frys punkt:</b>	Ej bestämd.
<b>Initial kokpunkt och kokpunktsintervall:</b>	Ej bestämd.

**· Flampunkt:** 177 °C

**· Brandfarlighet (fast form, gas):** Ej användbar.

**· Sönderfallstemperatur:** Ej bestämd.

**· Självantändningstemperatur:** Produkten är ej självantändande.

**· Explosiva egenskaper:** Produkten är ej explosiv.

**· Explosionsgränser:**

<b>Nedre:</b>	Ej bestämd.
<b>Övre:</b>	Ej bestämd.

**· Ångtryck:** Ej bestämd.

<b>· Densitet vid 20 °C:</b>	1,1 g/cm <sup>3</sup>
<b>· Relativ densitet</b>	Ej bestämd.
<b>· Ångdensitet</b>	Ej bestämd.

(Fortsättning på sida 5)

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 4)

· <b>Avdunstningshastighet:</b>	Ej bestämd.
· <b>Löslighet i / blandbarhet med Vatten:</b>	Ej resp. föga blandbar.
· <b>Fördelningskoefficient: n-oktanol/vatten:</b>	Ej bestämd.
· <b>Viskositet:</b>	
<b>Dynamisk:</b>	Ej bestämd.
<b>Kinematisk:</b>	Ej bestämd.
· <b>Lösningsmedelhalt:</b>	
<b>VOC (EG)</b>	0,00 %
<b>Andel av fasta partiklar:</b>	0,0 %
· <b>9.2 Annan information</b>	Ingen ytterligare relevant information finns till förfogande.

### AVSNITT 10: Stabilitet och reaktivitet

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

### AVSNITT 11: Toxikologisk information

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

(Fortsättning på sida 6)

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 5)

**AVSNITT 12: Ekologisk information**

- **12.1 Toxicitet**
- **Akvatisk toxicitet:** Ingen ytterligare relevant information finns till förfogande.
- **12.2 Persistens och nedbrytbarhet** Ingen ytterligare relevant information finns till förfogande.
- **12.3 Bioackumuleringsförmåga** Ingen ytterligare relevant information finns till förfogande.
- **12.4 Rörlighet i jord** Ingen ytterligare relevant information finns till förfogande.
- **Ekotoxiska effekter:**
- **Kommentar:** Giftig för fisk.
- **Ytterligare ekologiska hänvisningar:**
- **Allmänna hänvisningar:**  
Vattenföroreningsklass 2 (Självtvärdering): risk för vattenförorening.  
Låt ej tränga ner i grundvatten, vattendrag eller i avloppsnätet.  
Risk för förorening av dricksvattnet redan när små mängder tränger ner i marken.  
I vattendrag även giftig för fisk och plankton.  
Giftig för vattenorganismer
- **12.5 Resultat av PBT- och vPvB-bedömningen**
- **PBT:** Ej användbar.
- **vPvB:** Ej användbar.
- **12.6 Andra skadliga effekter** Ingen ytterligare relevant information finns till förfogande.

**AVSNITT 13: Avfallshantering**

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

**AVSNITT 14: Transportinformation**

- |                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                      | <p>UN3082</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>· <b>14.2 Officiell transportbenämning</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>3082 MILJÖFARLIGT ÄMNE, FLYTANDE, N.O.S.<br/>(reaktionsprodukt av bisfenol A och epiklorhydrin med medelmolekylvikt ≤ 700)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> |

(Fortsättning på sida 7)

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 6)

## · 14.3 Faroklass för transport

· ADR, IMDG, IATA



· Klass

9 Övriga farliga ämnen och föremål

· Etikett

9

## · 14.4 Förpackningsgrupp

· ADR, IMDG, IATA

III

## · 14.5 Miljöfaror:

· Marine pollutant:

Symbol (fisk och träd)

· Särskild märkning (ADR):

Symbol (fisk och träd)

· Särskild märkning (IATA):

Symbol (fisk och träd)

## · 14.6 Särskilda skyddsåtgärder

· Farlighetsnummer (Kemler-tal):

Varning: Övriga farliga ämnen och föremål

90

· EMS-nummer:

F-A,S-F

· Stowage Category

A

## · 14.7 Bulktransport enligt bilaga II till Marpol 73/78 och IBC-koden

Ej användbar.

## · Transport / ytterligare uppgifter:

· ADR

· Begränsade mängder (LQ)

5L

· Reducerade mängder (EQ)

Kod: E1

Högsta nettomängd per innerförpackning: 30 ml

Högsta nettomängd per ytterförpackning: 1000 ml

· Transportkategori

3

· Tunnelrestriktionskod

-

· 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 3082 MILJÖFARLIGT ÄMNE, FLYTANDE, N.O.S.  
(REAKTIONSPRODUKT AV BISFENOL A OCH  
EPIKLORHYDRIN MED MEDELMOLEKYLVIKT ≤ 700),  
9, III**AVSNITT 15: Gällande föreskrifter**

## · 15.1 Föreskrifter/lagstiftning om ämnet eller blandningen när det gäller säkerhet, hälsa och miljö

· Direktiv 2012/18/EU

· Namngivna farliga ämnen - BILAGA I Inga beståndsdelar är listade.

· Seveso-kategorier E2 Farligt för vattenmiljön

· Tröskelvärden (i ton) för tillämpning av krav för lägre nivå 200 t

· Tröskelvärden (i ton) för tillämpning av krav för övre nivå 500 t

(Fortsättning på sida 8)

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

Datum för utskrift: 13.04.2020

Omarbetad: 13.04.2020

**Handelsnamn: EPO-FIX EMBEDDING RESIN**

(Fortsättning från sida 7)

- **Förordning (EG) nr 1907/2006 BILAGA XVII Villkor: 3**
- **15.2 Kemikaliesäkerhetsbedömning: En kemikaliesäkerhetsbedömning har ej gjorts.**

### AVSNITT 16: Annan information

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

- **Relevanta fraser**

H315 Irriterar huden.

H317 Kan orsaka allergisk hudreaktion.

H319 Orsakar allvarlig ögonirritation.

H411 Giftigt för vattenlevande organismer med långtidseffekter.

- **Förkortningar och 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Frätande eller irriterande på huden – Kategori 2

Eye Irrit. 2: Allvarlig ögonskada eller ögonirritation – Kategori 2

Skin Sens. 1: Hudsensibilisering – Kategori 1

Aquatic Chronic 2: Farligt för vattenmiljön - fara för skadliga långtidseffekter – Kategori 2