

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

## 1 Identification

- **Product identifier**
- **Trade name:** EPON-815 RESIN
- **Article number:** 14910
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

- Muta. 2 H341 Suspected of causing genetic defects.  
 Carc. 2 H351 Suspected of causing cancer.  
 STOT SE 2 H371 May cause damage to organs.  
 STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



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.  
 STOT SE 3 H335 May cause respiratory irritation.
- Flam. Liq. 4 H227 Combustible liquid.

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



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )

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**Trade name: EPON-815 RESIN**

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(BGE) butyl glycidyl ether

· **Hazard statements**

Combustible liquid.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 Suspected of causing genetic defects.  
 Suspected of causing cancer.  
 May cause damage to organs.  
 May cause respiratory irritation.  
 Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from flames and hot surfaces. – No smoking.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 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.  
 IF exposed or concerned: Get medical advice/attention.  
 Get medical advice/attention if you feel unwell.  
 Specific treatment (see on this label).  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Take off contaminated clothing and wash it before reuse.  
 Wash contaminated clothing before reuse.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

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

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Trade name: EPON-815 RESIN

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### 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 $\leq 700$ )	50-100%
2426-08-6	(BGE) butyl glycidyl ether	10-25%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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### · 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>
2426-08-6	(BGE) butyl glycidyl ether	9 ppm

#### · PAC-2:

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	990 mg/m <sup>3</sup>
2426-08-6	(BGE) butyl glycidyl ether	580 ppm

#### · 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>
2426-08-6	(BGE) butyl glycidyl ether	3,500 ppm

## 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 following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

#### 2426-08-6 (BGE) butyl glycidyl ether

PEL Long-term value: 270 mg/m<sup>3</sup>, 50 ppm

REL Ceiling limit value: 30 mg/m<sup>3</sup>, 5.6 ppm  
\*15-min

TLV Long-term value: 16 mg/m<sup>3</sup>, 3 ppm  
Skin; DSEN

· **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.

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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
· <b>Odor:</b>	Characteristic
· <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:** 73 °C (163 °F)

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

· **Ignition temperature:** 215 °C (419 °F)

· **Decomposition temperature:** Not determined.

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

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

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- |  |                      |
|--|----------------------|
| · <b>Explosion limits:</b>   |                      |
| Lower:   | Not determined.      |
| Upper:   | Not determined.      |
| · <b>Vapor pressure at 20 °C (68 °F):</b> 3.5 hPa (3 mm Hg)                        |                      |
| · <b>Density at 20 °C (68 °F):</b> 1.13 g/cm <sup>3</sup> (9.43 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>  |                      |
| Dynamic:   | Not determined.      |
| Kinematic:   | Not determined.      |
| · <b>Solvent content:</b>  |                      |
| Organic solvents:  | 0.0 %                |
| VOC content:   | 0.0 g/l / 0.00 lb/gl |
| · <b>Other information</b> No further relevant information available.              |                      |

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

**2426-08-6 (BGE) butyl glycidyl ether**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

- **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

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- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**

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

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

- **Behavior in environmental systems:**

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

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

- **Additional ecological information:**

- **General notes:** Not known to be hazardous to water.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

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

- **Uncleaned packagings:**

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

## 14 Transport information

- **UN-Number**

- **DOT, ADR**

- **IMDG, IATA**

Void

UN3082

- **UN proper shipping name**

- **DOT, ADR**

- **IMDG**

Void

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

- **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.

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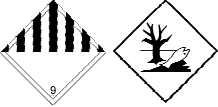
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· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR</b>	
· <b>Class</b>	Void
<hr style="border-top: 1px dashed black;"/>	
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	9 Miscellaneous dangerous substances and articles
· <b>Label</b>	9
· <b>Packing group</b>	
· <b>DOT, ADR</b>	Void
· <b>IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	Symbol (fish and tree)
· <b>Special marking (IATA):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Not applicable.
· <b>EMS Number:</b>	F-A,S-F
· <b>Stowage Category</b>	A
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

## 15 Regulatory information

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>
· <b>Sara</b>
· <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients is listed.
· <b>Section 313 (Specific toxic chemical listings):</b>
None of the ingredients is listed.
· <b>TSCA (Toxic Substances Control Act):</b>
All ingredients are listed.
· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.

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Trade name: **EPON-815 RESIN**

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- **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).

- **Hazard pictograms**



GHS07    GHS08

- **Signal word** *Danger*

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ) (BGE) butyl glycidyl ether

- **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May cause damage to organs.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

Obtain special instructions before use.

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

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

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

Wash thoroughly after handling.

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

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

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.

IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

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**Trade name: EPON-815 RESIN**

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*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** 10/25/2017 / -

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

**TLV: Threshold Limit Value**

**PEL: Permissible Exposure Limit**

**REL: Recommended Exposure Limit**

**Flam. Liq. 4: Flammable liquids – Category 4**

**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**

**Muta. 2: Germ cell mutagenicity – Category 2**

**Carc. 2: Carcinogenicity – Category 2**

**STOT SE 2: Specific target organ toxicity (single exposure) – Category 2**

**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**

US

# Safety Data Sheet

## according to WHS Regulations

Printing date 25.10.2017

Revision: 25.10.2017

### 1 Identification

- **Product identifier**
- **Trade name:** EPON-815 RESIN
- **Article number:** 14910
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.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**



GHS08 health hazard

- Muta. 2      H341 Suspected of causing genetic defects.  
 Carc. 2      H351 Suspected of causing cancer.  
 STOT SE 2    H371 May cause damage to organs.  
 STOT RE 1    H372 Causes damage to organs through prolonged or repeated exposure.



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.

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## Safety Data Sheet according to WHS Regulations

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Trade name: **EPON-815 RESIN**

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STOT SE 3 H335 May cause respiratory irritation.

Flam. Liq. 4 H227 Combustible liquid.

· **Label elements**

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ) (BGE) butyl glycidyl ether

· **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May cause damage to organs.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

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

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

Wash thoroughly after handling.

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

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

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.

IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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# Safety Data Sheet

## according to WHS Regulations

Printing date 25.10.2017

Revision: 25.10.2017

Trade name: **EPON-815 RESIN**

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· **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

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

- **Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ )	50-100%
2426-08-6	(BGE) butyl glycidyl ether	10-25%

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

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air 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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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# Safety Data Sheet

## according to WHS Regulations

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Trade name: **EPON-815 RESIN**

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See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
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:**

**2426-08-6 (BGE) butyl glycidyl ether**

WES	Long-term value: 133 mg/m <sup>3</sup> , 25 ppm
	Sen

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



Protective gloves

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

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

- **Material of gloves**

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

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## Safety Data Sheet according to WHS Regulations

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(Contd. of page 4)

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

### 9 Physical and Chemical Properties

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

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Characteristic
<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:** 73 °C

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

- **Ignition temperature:** 215 °C

- **Decomposition temperature:** Not determined.

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

- **Explosive properties:** Not determined.

- **Explosion limits:**

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

- **Vapour pressure at 20 °C:** 3.5 hPa

<b>Density at 20 °C:</b>	1.13 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

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

Not miscible or difficult to mix.

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

- **Viscosity:**

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

- **Solvent content:**

- **Organic solvents:** 0.0 %

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# Safety Data Sheet

## according to WHS Regulations

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Trade name: EPON-815 RESIN

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<b>VOC (EC)</b>	0.00 %
<b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

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

### 11 Toxicological Information

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

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

**2426-08-6 (BGE) butyl glycidyl ether**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

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

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

AU

(Contd. on page 7)



# Safety Data Sheet

## according to WHS Regulations

Printing date 25.10.2017

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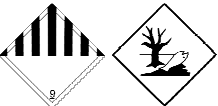
Trade name: EPON-815 RESIN

(Contd. of page 6)

### 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>· UN-Number</li> <li>· ADG, ADN</li> <li>· IMDG, IATA</li> </ul>	<p style="text-align: right;">not regulated UN3082</p>
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· ADG, ADN</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p style="text-align: right;">not regulated 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.</p>
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· ADG, ADN</li> <li>· Class</li> </ul>	<p style="text-align: right;">not regulated</p>
<ul style="list-style-type: none"> <li>· IMDG, IATA</li> </ul>	
	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p style="text-align: right;">9 Miscellaneous dangerous substances and articles. 9</p>
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· ADG</li> <li>· IMDG, IATA</li> </ul>	<p style="text-align: right;">not regulated III</p>
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (IATA):</li> </ul>	<p style="text-align: right;">Symbol (fish and tree) Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· EMS Number:</li> <li>· Stowage Category</li> </ul>	<p style="text-align: right;">Not applicable. F-A,S-F A</p>
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of Marpol and the IBC Code</li> </ul>	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> <li>· UN "Model Regulation":</li> </ul>	<p style="text-align: right;">not regulated</p>

AU

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# Safety Data Sheet

## according to WHS Regulations

Printing date 25.10.2017

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Trade name: EPON-815 RESIN

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### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

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 GHS08

· **Signal word** Danger

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ) (BGE) butyl glycidyl ether

· **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May cause damage to organs.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

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

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

Wash thoroughly after handling.

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

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

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.

IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

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# Safety Data Sheet

## according to WHS Regulations

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**Trade name: EPON-815 RESIN**

(Contd. of page 8)

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

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

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

· **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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 4: Flammable liquids – Category 4*

*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*

*Muta. 2: Germ cell mutagenicity – Category 2*

*Carc. 2: Carcinogenicity – Category 2*

*STOT SE 2: Specific target organ toxicity (single exposure) – Category 2*

*STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*

AU

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

## 1 Identification

- **Product identifier**
- **Trade name:** EPON-815 RESIN
- **Article number:** 14910
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Germ Cell Mutagenicity - Category 2	H341 Suspected of causing genetic defects.
Carcinogenicity - Category 2	H351 Suspected of causing cancer.
Specific Target Organ Toxicity - Single Exposure - Category 2	H371 May cause damage to organs.
Specific Target Organ Toxicity - Repeated Exposure - Category 1	H372 Causes damage to organs through prolonged or repeated exposure.



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.
Specific Target Organ Toxicity - Single Exposure - Category 3	H335 May cause respiratory irritation.
Flammable Liquids - Category 4	H227 Combustible liquid.

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



GHS07



GHS08

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# Safety Data Sheet

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Trade name: **EPON-815 RESIN**

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- **Signal word** *Danger*

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
(BGE) butyl glycidyl ether

- **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May cause damage to organs.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

Obtain special instructions before use.

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

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

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

Wash thoroughly after handling.

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

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

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.

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

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

Store in a well-ventilated place.

Store locked up.

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

- **Hazard description:**

- **WHMIS-symbols:**

B3 - Combustible liquid

D2A - Very toxic material causing other toxic effects



- **Classification system:**

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



Health = 2

Fire = 2

Reactivity = 0

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Trade name: **EPON-815 RESIN**

(Contd. of page 2)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	2	Fire = 2
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 $\leq 700$ )	60-100% w/w
2426-08-6	(BGE) butyl glycidyl ether	10-30% w/w

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**  
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.  
· **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.

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Trade name: **EPON-815 RESIN**

(Contd. of page 3)

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:**

**2426-08-6 (BGE) butyl glycidyl ether**

EL	Long-term value: 3 ppm Skin; S; R
----	--------------------------------------

EV	Long-term value: 3 ppm Skin
----	--------------------------------

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

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.

(Contd. on page 5)

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

Trade name: **EPON-815 RESIN**

(Contd. of page 4)

*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>	Characteristic
<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:** 73 °C

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

- **Ignition temperature:** 215 °C

- **Decomposition temperature:** Not determined.

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

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

- **Explosion limits:**

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

- **Vapor pressure at 20 °C:** 3.5 hPa

<b>Density at 20 °C:</b>	1.13 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

- **Solubility in / Miscibility with**

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

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

(Contd. on page 6)



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acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

Trade name: EPON-815 RESIN

(Contd. of page 5)

- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.0 %
- **Other information** No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

**2426-08-6 (BGE) butyl glycidyl ether**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

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

(Contd. on page 7)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

Trade name: EPON-815 RESIN


(Contd. of page 6)

- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **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, ADN</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="margin-left: 20px;">Void</p> <p style="margin-left: 20px;">UN3082</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, TDG, ADN</b></li> <li>· <b>IMDG</b></li> <li> </li> <li>· <b>IATA</b></li> </ul>	<p style="margin-left: 20px;">Void</p> <p style="margin-left: 20px;">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 style="margin-left: 20px;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, TDG, ADN</b></li> <li>· <b>Class</b></li> </ul>	<p style="margin-left: 20px;">Void</p>
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="margin-left: 20px;">9</p>
<div style="text-align: center;">  </div>	<p style="margin-left: 20px;">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 style="margin-left: 20px;">9</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, TDG</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="margin-left: 20px;">Void</p> <p style="margin-left: 20px;">III</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	<p style="margin-left: 20px;">Symbol (fish and tree)</p> <p style="margin-left: 20px;">Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>EMS Number:</b></li> </ul>	<p style="margin-left: 20px;">Not applicable.</p> <p style="margin-left: 20px;">F-A,S-F</p>

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

Trade name: EPON-815 RESIN

(Contd. of page 7)

- |  |                 |
|--|-----------------|
| · <b>Stowage Category</b>  | A               |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Void            |

## 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 ingredients are listed.

· **Canadian substance listings:**

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

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)
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· **Canadian Ingredient Disclosure list (limit 0.1%)**

2426-08-6	(BGE) butyl glycidyl ether
-----------	----------------------------

· **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    GHS08

· **Signal word** Danger

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700)  
(BGE) butyl glycidyl ether

· **Hazard statements**

Combustible liquid.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
Suspected of causing cancer.  
May cause damage to organs.  
May cause respiratory irritation.  
Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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# Safety Data Sheet

## acc. to OSHA HCS

Printing date 10/25/2017

Reviewed on 10/25/2017

**Trade name: EPON-815 RESIN**

(Contd. of page 8)

Do not handle until all safety precautions have been read and understood.  
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing should not be allowed out of the workplace.  
 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.  
**IF exposed or concerned:** Get medical advice/attention.  
 Get medical advice/attention if you feel unwell.  
 Specific treatment (see on this label).  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Take off contaminated clothing and wash it before reuse.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Store in a well-ventilated place.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.  
 · **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

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

· **Date of preparation / last revision** 10/25/2017 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 WHMIS: Workplace Hazardous Materials Information System (Canada)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

CA

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

Printing date 25.10.2017

Revision: 25.10.2017

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

- **1.1 Product identifier**
- **Trade name:** EPON-815 RESIN
- **Article number:** 14910
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

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



GHS08 health hazard

- Muta. 2 H341 Suspected of causing genetic defects.  
 Carc. 2 H351 Suspected of causing cancer.  
 STOT SE 2 H371 May cause damage to organs.  
 STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

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

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



GHS07



GHS08

- **Signal word** *Danger*

(Contd. on page 2)

# Safety data sheet

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

Printing date 25.10.2017

Revision: 25.10.2017

**Trade name: EPON-815 RESIN**

(Contd. of page 1)

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700)  
(BGE) butyl glycidyl ether

- **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H371 May cause damage to organs.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

Contains epoxy constituents. May produce an allergic reaction.

- **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: 2426-08-6 EINECS: 219-376-4	(BGE) butyl glycidyl ether ⚠ Flam. Liq. 3, H226; ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	10-25%

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

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:**

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

- **After inhalation:**

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

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## Safety data sheet

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**Trade name: EPON-815 RESIN**

(Contd. of page 2)

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

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
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.

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· **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.

· **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:**

Form: Liquid

Colour: Light yellow

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

(Contd. on page 5)



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Trade name: EPON-815 RESIN

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<b>Initial boiling point and boiling range:</b> Undetermined.	
· <b>Flash point:</b>	73 °C
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Ignition temperature:</b>	215 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Not determined.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	3.5 hPa
· <b>Density at 20 °C:</b>	1.13 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>Organic solvents:</b>	0.0 %
<b>VOC (EC)</b>	0.00 %
· <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.

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

**2426-08-6 (BGE) butyl glycidyl ether**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

(Contd. on page 6)

**Safety data sheet**  
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Printing date 25.10.2017

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**Trade name: EPON-815 RESIN**

(Contd. of page 5)

- **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**  
Suspected of causing genetic defects.
- **Carcinogenicity**  
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause damage to organs.
- **STOT-repeated exposure**  
Causes damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

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

### SECTION 14: Transport information

- |                                       |  |
|---------------------------------------|--|
| · <b>14.1 UN-Number</b>               |  |
| · <b>ADR, ADN</b>                     | not regulated  |
| · <b>IMDG, IATA</b>                   | UN3082   |
| · <b>14.2 UN proper shipping name</b> |  |
| · <b>ADR, ADN</b>                     | not regulated  |
| · <b>IMDG</b>                         | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE |

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· <b>IATA</b>	<b>POLLUTANT</b> <b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,</b> <b>N.O.S.</b>
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, ADN</b>	
· <b>Class</b>	<i>not regulated</i>
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	<i>9 Miscellaneous dangerous substances and articles.</i>
· <b>Label</b>	<i>9</i>
· <b>14.4 Packing group</b>	
· <b>ADR</b>	<i>not regulated</i>
· <b>IMDG, IATA</b>	<i>III</i>
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	<i>Symbol (fish and tree)</i>
· <b>Special marking (IATA):</b>	<i>Symbol (fish and tree)</i>
· <b>14.6 Special precautions for user</b>	<i>Not applicable.</i>
· <b>EMS Number:</b>	<i>F-A,S-F</i>
· <b>Stowage Category</b>	<i>A</i>
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	<i>Not applicable.</i>
· <b>UN "Model Regulation":</b>	<i>not regulated</i>

### 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.
- **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**
- H226 Flammable liquid and vapour.*
- H302 Harmful if swallowed.*
- H315 Causes skin irritation.*
- H317 May cause an allergic skin reaction.*
- H319 Causes serious eye irritation.*
- H332 Harmful if inhaled.*
- H335 May cause respiratory irritation.*

(Contd. on page 8)

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

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**Trade name: EPON-815 RESIN**

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*H341 Suspected of causing genetic defects.**H351 Suspected of causing cancer.**H411 Toxic to aquatic life with long lasting effects.**H412 Harmful 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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 4: Acute toxicity – Category 4**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**Muta. 2: Germ cell mutagenicity – Category 2**Carc. 2: Carcinogenicity – Category 2**STOT SE 2: Specific target organ toxicity (single exposure) – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*

GB

# Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 25.10.2017

Herziening van: 25.10.2017

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

- **1.1 Productidentificatie**
- **Handelsnaam: EPON-815 RESIN**
- **Artikelnummer: 14910**
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

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



GHS08 gezondheidsgevaar

- Muta. 2 H341 Verdacht van het veroorzaken van genetische schade.  
 Carc. 2 H351 Verdacht van het veroorzaken van kanker.  
 STOT SE 2 H371 Kan schade aan organen veroorzaken.  
 STOT RE 1 H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.



GHS07

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

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

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 25.10.2017

Herziening van: 25.10.2017

**Handelsnaam: EPON-815 RESIN**

(Vervolg van blz. 1)

## · Gevarenpictogrammen



GHS07 GHS08

## · Signaalwoord Gevaar

### · Gevaaraanduidende componenten voor de etikettering:

reactieproduct: bisfenol-A-epichloorhydrine epoxyhars (gemiddeld molecuulgewicht  $\leq 700$ )  
1-butoxy-2,3-epoxy-propaan

### · Gevarenaanduidingen

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H341 Verdacht van het veroorzaken van genetische schade.

H351 Verdacht van het veroorzaken van kanker.

H371 Kan schade aan organen veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.

### · Veiligheidsaanbevelingen

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

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

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

P321 Specifieke behandeling vereist (zie op dit etiket).

P405 Achter slot bewaren.

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

### · Aanvullende gegevens:

Bevat epoxyverbindingen. Kan een allergische reactie veroorzaken.

### · 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: 2426-08-6 EINECS: 219-376-4	1-butoxy-2,3-epoxy-propaan ⚠ Flam. Liq. 3, H226; ⚠ Muta. 2, H341; ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	10-25%

(Vervolg op blz. 3)

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**· Aanvullende gegevens:**

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

### RUBRIEK 4: Eerstehulpmaatregelen

**· 4.1 Beschrijving van de eerstehulpmaatregelen****· Algemene informatie:**

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

**· Na het inademen:**

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

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

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

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

**· Na inslikken:** 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:**

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

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

Geen verdere relevante informatie verkrijgbaar.

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

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

**· 6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.**· 6.2 Milieuvoorzorgsmaatregelen:** Geen speciale maatregelen noodzakelijk.**· 6.3 Insluitings- en reinigingsmethoden en -materiaal:**

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

Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

**· 6.4 Verwijzing naar andere rubrieken**

Informatie inzake veilig gebruik - zie hoofdstuk 7.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

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

Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

Aërosolvorming vermijden.

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- **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.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**  
Het product 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 ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

- Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliën mengsel afgegeven worden.  
Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.
- **Handschoenmateriaal**  
De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór 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

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## RUBRIEK 9: Fysische en chemische eigenschappen

### · 9.1 Informatie over fysische en chemische basiseigenschappen

#### · Algemene gegevens

#### · Voorkomen:

Vorm:	Vloeistof
Kleur:	Lichtgeel
Geur:	Karakteristiek
Geurdrempelwaarde:	Niet bepaald.

· pH-waarde: Niet bepaald.

#### · Toestandsverandering

Smelt-/vriespunt:	Niet bepaald.
Beginkookpunt en kooktraject:	Niet bepaald.

· Vlampunt: 73 °C

· Ontvlambaarheid (vast, gas): Niet bruikbaar.

· Ontstekingstemperatuur: 215 °C

· Ontledingstemperatuur: Niet bepaald.

· Zelfontbrandingstemperatuur: Het produkt ontbrandt niet uit zichzelf.

· Ontploffingseigenschappen: Niet bepaald.

#### · Ontploffingsgrenzen:

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· Dampspanning bij 20 °C: 3,5 hPa

· Dichtheid bij 20 °C: 1,13 g/cm<sup>3</sup>

· Relatieve dichtheid: Niet bepaald.

· Dampdichtheid: Niet bepaald.

· Verdampingssnelheid: Niet bepaald.

#### · Oplosbaarheid in/mengbaarheid met

Water: Niet resp. gering mengbaar.

· Verdelingscoëfficiënt: n-octanol/water: Niet bepaald.

#### · Viscositeit

Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.

#### · Oplosmiddelgehalte:

Organisch oplosmiddel:	0,0 %
VOC (EG)	0,00 %

· 9.2 Overige informatie: 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.

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- **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.

#### Indelingsrelevantie LD/LC50-waarden:

##### 2426-08-6 1-butoxy-2,3-epoxy-propaan

Oraal	LD50	2050 mg/kg (rat)
Dermaal	LD50	2520 mg/kg (rabbit)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**  
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen**  
Verdacht van het veroorzaken van genetische schade.
- **Kankerverwekkendheid**  
Verdacht van het veroorzaken van kanker.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**  
Kan schade aan organen veroorzaken.
- **STOT bij herhaalde blootstelling**  
Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): A(2) vergiftig voor in water levende organismen kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken  
Geen gevaar voor water bekend.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

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(Vervolg op blz. 7)

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## RUBRIEK 13: Instructies voor verwijdering

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

## RUBRIEK 14: Informatie met betrekking tot het vervoer

- |   |  |
|---|--|
| · 14.1 VN-nummer  |  |
| · ADR, ADN  | Niet van toepassing  |
| · IMDG, IATA  | UN3082   |
| · 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN               |  |
| · ADR, ADN  | Niet van toepassing  |
| · 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.  |
| · 14.3 Transportgevaarklasse(n)   |  |
| · ADR, ADN  |  |
| · klasse  | Niet van toepassing  |
| · IMDG, IATA  |  |
|  |  |
| · Class   | 9 Diverse gevaarlijke stoffen en voorwerpen  |
| · Label   | 9  |
| · 14.4 Verpakkingsgroep:  |  |
| · ADR   | Niet van toepassing  |
| · IMDG, IATA  | III  |
| · 14.5 Milieugevaren:   |  |
| · Marine pollutant:   | Symbool (vis en boom)  |
| · Bijzondere kenmerking (IATA):   | Symbool (vis en boom)  |
| · 14.6 Bijzondere voorzorgen voor de gebruiker                                      | Niet bruikbaar.  |
| · 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.  |
| · VN "Model Regulation":  | Niet van toepassing  |

(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.

#### · Richtlijn 2012/18/EU

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

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

#### · 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 producteigenschappen en vestigen geen contractuele rechtsbetrekking.

#### · Relevante zinnen

H226 Ontvlambare vloeistof en damp.

H302 Schadelijk bij inslikken.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H332 Schadelijk bij inademing.

H335 Kan irritatie van de luchtwegen veroorzaken.

H341 Verdacht van het veroorzaken van genetische schade.

H351 Verdacht van het veroorzaken van kanker.

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

H412 Schadelijk 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

(Vervolg op blz. 9)

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*vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 3: Ontvlambare vloeistoffen – Categorie 3**Acute Tox. 4: Acute toxiciteit – Categorie 4**Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2**Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2**Skin Sens. 1: Sensibilisatie van de huid – Categorie 1**Muta. 2: Mutageniteit in geslachtscellen – Categorie 2**Carc. 2: Kankerverwekkendheid – Categorie 2**STOT SE 2: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 2**STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3**STOT RE 1: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 1**Aquatic Chronic 2: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 2**Aquatic Chronic 3: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 3*

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 25.10.2017

Révision: 25.10.2017

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

- **1.1 Identificateur de produit**
- **Nom du produit:** EPON-815 RESIN
- **Code du produit:** 14910
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

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



GHS08 danger pour la santé

- Muta. 2 H341 Susceptible d'induire des anomalies génétiques.  
 Carc. 2 H351 Susceptible de provoquer le cancer.  
 STOT SE 2 H371 Risque présumé d'effets graves pour les organes.  
 STOT RE 1 H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.



GHS07

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

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



GHS07



GHS08

- **Mention d'avertissement** Danger

(suite page 2)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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Révision: 25.10.2017

**Nom du produit: EPON-815 RESIN**

(suite de la page 1)

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

produit de réaction: bisphénol-A-épichlorhydrine résines époxydiques (poids moléculaire moyen  $\leq 700$ )  
1-butoxy-2,3-époxypropane

· **Mentions de danger**

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H341 Susceptible d'induire des anomalies génétiques.

H351 Susceptible de provoquer le cancer.

H371 Risque présumé d'effets graves pour les organes.

H335 Peut irriter les voies respiratoires.

H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

· **Conseils de prudence**

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

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

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

P321 Traitement spécifique (voir sur cette étiquette).

P405 Garder sous clef.

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

· **Indications complémentaires:**

Contient des composés époxydiques. Peut produire une réaction allergique.

· **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: 2426-08-6 EINECS: 219-376-4	1-butoxy-2,3-époxypropane ⚠ Flam. Liq. 3, H226; ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	10-25%

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

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### RUBRIQUE 4: Premiers secours

- **4.1 Description des premiers secours**
- **Remarques générales:**  
Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
- **Après inhalation:**  
Donner de l'air frais 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:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

### 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:** Aucune mesure particulière n'est requise.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Évacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.
- **6.4 Référence à d'autres 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.

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- **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:**

**2426-08-6 1-butoxy-2,3-époxypropane**

VME	Valeur à long terme: 135 mg/m <sup>3</sup> , 25 ppm
	C2, M2

- **Remarques supplémentaires:**

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

- **8.2 Contrôles de l'exposition**

- **Equipement de protection individuel:**

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

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

Retirer immédiatement les vêtements souillés ou humectés.

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

Eviter tout contact avec les yeux et avec la peau.

- **Protection respiratoire:**

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

- **Protection des mains:**



Gants de protection

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

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

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

- **Matériau des gants**

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

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

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

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## · 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:	Caractéristique
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 73 °C

· Inflammabilité (solide, gaz): Non applicable.

· Température d'inflammation: 215 °C

· Température de décomposition: Non déterminé.

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

· Propriétés explosives: Non déterminé.

## · Limites d'explosion:

Inférieure:	Non déterminé.
Supérieure:	Non déterminé.

· Pression de vapeur à 20 °C: 3,5 hPa

· Densité à 20 °C: 1,13 g/cm<sup>3</sup>

· Densité relative: Non déterminé.

· Densité de vapeur: Non déterminé.

· Taux d'évaporation: Non déterminé.

· Solubilité dans/miscibilité avec l'eau:

Pas ou peu miscible

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

## · Viscosité:

Dynamique:	Non déterminé.
Cinématique:	Non déterminé.

## · Teneur en solvants:

Solvants organiques:	0,0 %
VOC (CE)	0,00 %

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· 9.2 Autres informations

Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

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

### RUBRIQUE 11: Informations toxicologiques

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

· Valeurs LD/LC50 déterminantes pour la classification:

#### 2426-08-6 1-butoxy-2,3-époxypropane

Oral	LD50	2050 mg/kg (rat)
Dermique	LD50	2520 mg/kg (lapin)

- **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**  
Susceptible d'induire des anomalies génétiques.
- **Cancérogénicité**  
Susceptible de provoquer le cancer.
- **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**  
Risque présumé d'effets graves pour les organes.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

### RUBRIQUE 12: Informations écologiques

- 12.1 Toxicité
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- 12.2 Persistance et dégradabilité Pas d'autres informations importantes disponibles.
- 12.3 Potentiel de bioaccumulation Pas d'autres informations importantes disponibles.
- 12.4 Mobilité dans le sol Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:** Aucune pollution des eaux connue.

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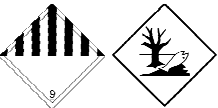
(suite de la page 6)

- **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, ADN</b></li> <li>· <b>IMDG, IATA</b></li> </ul>  | <p style="margin-left: 20px;">néant</p> <p style="margin-left: 20px;">UN3082</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR, ADN</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>                                 | <p style="margin-left: 20px;">néant</p> <p style="margin-left: 20px;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p style="margin-left: 20px;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p> |
| <ul style="list-style-type: none"> <li>· <b>14.3 Classe(s) de danger pour le transport</b></li> <li>· <b>ADR, ADN</b></li> <li>· <b>Classe</b></li> <li>· <b>IMDG, IATA</b></li> </ul>                                | <p style="margin-left: 20px;">néant</p>  |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | <p style="margin-left: 20px;">9 Matières et objets dangereux divers.</p> <p style="margin-left: 20px;">9</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Groupe d'emballage</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">néant</p> <p style="margin-left: 20px;">III</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.5 Dangers pour l'environnement:</b></li> <li>· <b>Marine Pollutant:</b></li> <li>· <b>Marquage spécial (IATA):</b></li> </ul>  | <p style="margin-left: 20px;">Signe conventionnel (poisson et arbre)</p> <p style="margin-left: 20px;">Signe conventionnel (poisson et arbre)</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.6 Précautions particulières à prendre par l'utilisateur</b></li> <li>· <b>No EMS:</b></li> <li>· <b>Stowage Category</b></li> </ul>                                    | <p style="margin-left: 20px;">Non applicable.</p> <p style="margin-left: 20px;">F-A,S-F</p> <p style="margin-left: 20px;">A</p>  |

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- |  |                        |
|--|------------------------|
| <b>· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b> | <i>Non applicable.</i> |
| <b>· "Règlement type" de l'ONU:</b>  | <i>néant</i>           |

### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3
- **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**

- H226 Liquide et vapeurs inflammables.
- H302 Nocif en cas d'ingestion.
- H315 Provoque une irritation cutanée.
- H317 Peut provoquer une allergie cutanée.
- H319 Provoque une sévère irritation des yeux.
- H332 Nocif par inhalation.
- H335 Peut irriter les voies respiratoires.
- H341 Susceptible d'induire des anomalies génétiques.
- H351 Susceptible de provoquer le cancer.
- H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
- H412 Nocif 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 3: Liquides inflammables – Catégorie 3
- Acute Tox. 4: Toxicité aiguë – Catégorie 4
- 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
- Muta. 2: Mutagénicité sur les cellules germinales – Catégorie 2
- Carc. 2: Cancérogénicité – Catégorie 2
- STOT SE 2: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 2
- STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3
- STOT RE 1: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 1
- Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2
- Aquatic Chronic 3: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 3

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 25.10.2017

überarbeitet am: 25.10.2017

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

- **1.1 Produktidentifikator**
- **Handelsname:** EPON-815 RESIN
- **Artikelnummer:** 14910
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
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**



GHS08 Gesundheitsgefahr

- Muta. 2 H341 Kann vermutlich genetische Defekte verursachen.  
 Carc. 2 H351 Kann vermutlich Krebs erzeugen.  
 STOT SE 2 H371 Kann die Organe schädigen.  
 STOT RE 1 H372 Schädigt die Organe bei längerer oder wiederholter Exposition.



GHS07

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

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## gemäß 1907/2006/EG, Artikel 31

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**Handelsname: EPON-815 RESIN**

(Fortsetzung von Seite 1)

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



GHS07 GHS08

- **Signalwort Gefahr**
- **Gefahrbestimmende Komponenten zur Etikettierung:**  
Reaktionsprodukt: Bisphenol-A-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht  $\leq 700$   
1-Butoxy-2,3-epoxy-propan
- **Gefahrenhinweise**  
H315 Verursacht Hautreizungen.  
H319 Verursacht schwere Augenreizung.  
H317 Kann allergische Hautreaktionen verursachen.  
H341 Kann vermutlich genetische Defekte verursachen.  
H351 Kann vermutlich Krebs erzeugen.  
H371 Kann die Organe schädigen.  
H335 Kann die Atemwege reizen.  
H372 Schädigt die Organe bei längerer oder wiederholter Exposition.
- **Sicherheitshinweise**  
P260 Staub/Rauch/Gas/Nebel/Dampf/Aerosol nicht einatmen.  
P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.  
P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen.  
Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.  
P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).  
P405 Unter Verschluss aufbewahren.  
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **Zusätzliche Angaben:**  
Enthält epoxidhaltige Verbindungen. Kann allergische Reaktionen hervorrufen.
- **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%
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CAS: 2426-08-6 EINECS: 219-376-4	1-Butoxy-2,3-epoxy-propan 	10-25%
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· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**  
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
- **Nach Einatmen:**  
Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.  
Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:**  
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**  
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**  
Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**  
CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** Keine besonderen Maßnahmen erforderlich.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

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### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
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.

### 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.  
Besmutzte, 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 umluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

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

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

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

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## · Augenschutz:



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

## · Allgemeine Angaben

## · Aussehen:

Form: Flüssigkeit

Farbe: Hellgelb

· Geruch: Charakteristisch

· Geruchsschwelle: Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

## · Zustandsänderung

Schmelzpunkt/Gefrierpunkt: Nicht bestimmt.

Siedebeginn und Siedebereich: Nicht bestimmt.

· Flammpunkt: 73 °C

· Entzündbarkeit (fest, gasförmig): Nicht anwendbar.

· Zündtemperatur: 215 °C

· Zersetzungstemperatur: Nicht bestimmt.

· Selbstentzündungstemperatur: Das Produkt ist nicht selbstentzündlich.

· Explosive Eigenschaften: Nicht bestimmt.

## · Explosionsgrenzen:

Untere: Nicht bestimmt.

Obere: Nicht bestimmt.

· Dampfdruck bei 20 °C: 3,5 hPa

· Dichte bei 20 °C: 1,13 g/cm<sup>3</sup>

· Relative Dichte: Nicht bestimmt.

· Dampfichte: 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:

Organische Lösemittel: 0,0 %

VOC (EU) 0,00 %

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## · 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.

## · Einstufungsrelevante LD/LC50-Werte:

**2426-08-6 1-Butoxy-2,3-epoxy-propan**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

- **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**  
Kann vermutlich genetische Defekte verursachen.
- **Karzinogenität**  
Kann vermutlich Krebs erzeugen.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Kann die Organe schädigen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Schädigt die Organe bei längerer oder wiederholter Exposition.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:** Keine Wassergefährdung bekannt.

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

### ABSCHNITT 13: Hinweise zur Entsorgung

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

### ABSCHNITT 14: Angaben zum Transport

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Nummer</b></li> <li>· <b>ADR, ADN</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">entfällt</p> <p style="margin-left: 20px;">UN3082</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b></li> <li>· <b>ADR, ADN</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>   | <p style="margin-left: 20px;">entfällt</p> <p style="margin-left: 20px;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT</p> <p style="margin-left: 20px;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p> |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR, ADN</b></li> <li>· <b>Klasse</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">entfällt</p>  |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | <p style="margin-left: 20px;">9 Verschiedene gefährliche Stoffe und Gegenstände</p> <p style="margin-left: 20px;">9</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Verpackungsgruppe</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>  | <p style="margin-left: 20px;">entfällt</p> <p style="margin-left: 20px;">III</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.5 Umweltgefahren:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Besondere Kennzeichnung (IATA):</b></li> </ul>   | <p style="margin-left: 20px;">Symbol (Fisch und Baum)</p> <p style="margin-left: 20px;">Symbol (Fisch und Baum)</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b></li> <li>· <b>EMS-Nummer:</b></li> <li>· <b>Stowage Category</b></li> </ul>                                       | <p style="margin-left: 20px;">Nicht anwendbar.</p> <p style="margin-left: 20px;">F-A,S-F</p> <p style="margin-left: 20px;">A</p>  |

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

· **UN "Model Regulation":** entfällt

### ABSCHNITT 15: Rechtsvorschriften

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

· **Richtlinie 2012/18/EU**

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

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

· **Nationale Vorschriften:**

· **Technische Anleitung Luft:**

Klasse	Anteil in %
I	13,5

· **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**

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

· **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**

H226 Flüssigkeit und Dampf entzündbar.

H302 Gesundheitsschädlich bei Verschlucken.

H315 Verursacht Hautreizungen.

H317 Kann allergische Hautreaktionen verursachen.

H319 Verursacht schwere Augenreizung.

H332 Gesundheitsschädlich bei Einatmen.

H335 Kann die Atemwege reizen.

H341 Kann vermutlich genetische Defekte verursachen.

H351 Kann vermutlich Krebs erzeugen.

H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

H412 Schädlich 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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*Flam. Liq. 3: Entzündbare Flüssigkeiten – Kategorie 3*  
*Acute Tox. 4: Akute Toxizität – Kategorie 4*  
*Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2*  
*Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2*  
*Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1*  
*Muta. 2: Keimzellmutagenität – Kategorie 2*  
*Carc. 2: Karzinogenität – Kategorie 2*  
*STOT SE 2: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 2*  
*STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3*  
*STOT RE 1: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 1*  
*Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2*  
*Aquatic Chronic 3: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 3*

DE

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

Stampato il: 25.10.2017

Revisione: 25.10.2017

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** EPON-815 RESIN

· **Articolo numero:** 14910

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**

Non sono disponibili altre informazioni.

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

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

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkcck@aol.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

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

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

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

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



GHS08 pericolo per la salute

Muta. 2 H341 Sospettato di provocare alterazioni genetiche.

Carc. 2 H351 Sospettato di provocare il cancro.

STOT SE 2 H371 Può provocare danni agli organi.

STOT RE 1 H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.



GHS07

Skin Irrit. 2 H315 Provoca irritazione cutanea.

Eye Irrit. 2 H319 Provoca grave irritazione oculare.

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

STOT SE 3 H335 Può irritare le vie respiratorie.

· **2.2 Elementi dell'etichetta**

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

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

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

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**Denominazione commerciale: EPON-815 RESIN**

(Segue da pagina 1)

**Pittogrammi di pericolo**

GHS07 GHS08

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

prodotto di reazione: bisfenolo-A-epicloridrina resine epossidiche (peso molecolare medio  $\leq 700$ )  
1-butossi-2,3-epossipropano

**Indicazioni di pericolo**

H315 Provoca irritazione cutanea.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H341 Sospettato di provocare alterazioni genetiche.

H351 Sospettato di provocare il cancro.

H371 Può provocare danni agli organi.

H335 Può irritare le vie respiratorie.

H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.

**Consigli di prudenza**

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

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

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

P321 Trattamento specifico (vedere su questa etichetta).

P405 Conservare sotto chiave.

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

**Ulteriori dati:**

Contiene componenti epossidici. Può provocare una reazione allergica.

**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	50-100%
CAS: 2426-08-6 EINECS: 219-376-4	1-butossi-2,3-epossipropano ⚠ Flam. Liq. 3, H226; ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	10-25%

(continua a pagina 3)



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

#### **SEZIONE 4: Misure di primo soccorso**

· **4.1 Descrizione delle misure di primo soccorso**

· **Indicazioni generali:**

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

· **Inalazione:**

*Portare 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.

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

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

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:**

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

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**

· **Mezzi protettivi specifici:** 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:** Non sono richiesti provvedimenti particolari.

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

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

*Smaltimento del materiale contaminato conformemente al punto 13.*

*Provvedere ad una sufficiente areazione.*

· **6.4 Riferimento ad altre sezioni**

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

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

*Per informazioni relative allo smaltimento vedere Capitolo 13.*

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

· **7.1 Precauzioni per la manipolazione sicura**

*Accurata ventilazione/aspirazione nei luoghi di lavoro.*

*Evitare la formazione di aerosol.*

· **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.

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- **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:**

#### **2426-08-6 1-butossi-2,3-epossipropano**

TWA	Valore a lungo termine: 16 mg/m <sup>3</sup> , 3 ppm
	Cute, sen

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

#### · **8.2 Controlli dell'esposizione**

##### · **Mezzi protettivi individuali:**

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

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

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· **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:** Caratteristico

· **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:** 73 °C

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

· **Temperatura di accensione:** 215 °C

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

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

· **Proprietà esplosive:** Non definito.

##### · Limiti di infiammabilità:

**Inferiore:** Non definito.

**Superiore:** Non definito.

· **Tensione di vapore a 20 °C:** 3,5 hPa

· **Densità a 20 °C:** 1,13 g/cm<sup>3</sup>

· **Densità relativa:** Non definito.

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

· **Velocità di evaporazione:** Non definito.

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

Poco e/o non miscibile.

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

##### · Viscosità:

**Dinamica:** Non definito.

**Cinematica:** Non definito.

##### · Tenore del solvente:

**Solventi organici:** 0,0 %

**VOC (CE)** 0,00 %

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· 9.2 Altre informazioni

Non sono disponibili altre informazioni.

**SEZIONE 10: Stabilità e reattività**

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

**SEZIONE 11: Informazioni tossicologiche**

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

· **Valori LD/LC50 rilevanti per la classificazione:****2426-08-6 1-butossi-2,3-epossipropano**

Orale	LD50	2050 mg/kg (rat)
Cutaneo	LD50	2520 mg/kg (rabbit)

- **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**  
Sospettato di provocare alterazioni genetiche.
- **Cancerogenicità**  
Sospettato di provocare il cancro.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Può provocare danni agli organi.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Provoca danni agli organi in caso di esposizione prolungata o ripetuta.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

**SEZIONE 12: Informazioni ecologiche**

- 12.1 Tossicità
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- 12.2 Persistenza e degradabilità Non sono disponibili altre informazioni.
- 12.3 Potenziale di bioaccumulo Non sono disponibili altre informazioni.
- 12.4 Mobilità nel suolo Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:** Non si conoscono dati di pericolosità per le acque.

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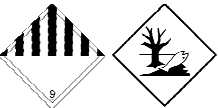
(Segue da pagina 6)

- **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, ADN</b>   | non applicabile  |
| · <b>IMDG, IATA</b>   | UN3082   |
| · <b>14.2 Nome di spedizione dell'ONU</b>   |  |
| · <b>ADR, ADN</b>   | non applicabile  |
| · <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.  |
| · <b>14.3 Classi di pericolo connesso al trasporto</b>                              |  |
| · <b>ADR, ADN</b>   |  |
| · <b>Classe</b>   | non applicabile  |
| · <b>IMDG, IATA</b>   |  |
|  |  |
| · <b>Class</b>  | 9 Materie ed oggetti pericolosi diversi  |
| · <b>Label</b>  | 9  |
| · <b>14.4 Gruppo di imballaggio</b>   |  |
| · <b>ADR</b>  | non applicabile  |
| · <b>IMDG, IATA</b>   | III  |
| · <b>14.5 Pericoli per l'ambiente:</b>  |  |
| · <b>Marine pollutant:</b>  | Simbolo (pesce e albero)   |
| · <b>Marcatura speciali (IATA):</b>   | Simbolo (pesce e albero)   |
| · <b>14.6 Precauzioni speciali per gli utilizzatori</b>                             | Non applicabile.   |
| · <b>Numero EMS:</b>  | F-A,S-F  |
| · <b>Stowage Category</b>   | A  |
| · <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b> | Non applicabile.   |

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**Scheda di dati di sicurezza**  
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· **UN "Model Regulation":** non applicabile

### SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3
- **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**

- H226 Liquido e vapori infiammabili.
- H302 Nocivo se ingerito.
- H315 Provoca irritazione cutanea.
- H317 Può provocare una reazione allergica cutanea.
- H319 Provoca grave irritazione oculare.
- H332 Nocivo se inalato.
- H335 Può irritare le vie respiratorie.
- H341 Sospettato di provocare alterazioni genetiche.
- H351 Sospettato di provocare il cancro.
- H411 Tossico per gli organismi acquatici con effetti di lunga durata.
- H412 Nocivo 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 3: Liquidi infiammabili – Categoria 3
- Acute Tox. 4: Tossicità acuta – Categoria 4
- 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
- Muta. 2: Mutagenicità sulle cellule germinali – Categoria 2
- Carc. 2: Cancerogenicità – Categoria 2
- STOT SE 2: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 2
- STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3
- STOT RE 1: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 1
- Aquatic Chronic 2: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 2
- Aquatic Chronic 3: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 3

# 물질안전보건자료 GHS에 따라

기압점: 2017.10.25

개정: 2017.10.25

## 1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명: EPON-815 RESIN**
- **상품번호: 14910**
- **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도** 추가적인 정보가 존재하지 않습니다.
- **제품의 권고 용도와 사용상의 제한:** 실험실화학품
- **안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보**
- **제조사/수입자/유통업자 정보:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Samchang Commercial Co., Ltd.**  
 Yeo Eui Do  
 PO Box 1110  
 Seoul, Korea  
 Tel: 82 2 703 3040  
 Fax: 82 2 717 3298
- **추가적인 정보 획득 가능:** Product safety department
- **비상연락 전화번호:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

## 2 유해성·위험성

- **순물질 또는 혼합물의 분류**



건강에 위험

- |                          |                                   |
|--------------------------|-----------------------------------|
| 생식세포 변이원성 - 구분 2         | H341 유전적인 결함을 일으킬 것으로 의심됨         |
| 발암성 - 구분 2               | H351 암을 일으킬 것으로 의심됨               |
| 특정표적장기 독성 - 1회 노출 - 구분 2 | H371 신체 중에 손상을 일으킬 수 있음           |
| 특정표적장기 독성 - 반복 노출 - 구분 1 | H372 장기간 또는 반복노출 되면 신체 중에 손상을 일으킴 |



- |                          |                            |
|--------------------------|----------------------------|
| 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 |
| 특정표적장기 독성 - 1회 노출 - 구분 3 | H335 호흡기계 자극을 일으킬 수 있음     |

- **라벨표기 요소**

- **GHS 라벨 요소**

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

(2 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.10.25

개정: 2017.10.25

**제품명: EPON-815 RESIN**

(1 쪽부터 계속)

**· 그림문자**



GHS07 GHS08

**· 신호어 위험**

**· 상표상에 명확히 위험성이 표시된 성분:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) (BGE) butyl glycidyl ether

**· 유해·위험 문구**

- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 유전적인 결함을 일으킬 것으로 의심됨
- 압을 일으킬 것으로 의심됨
- 신체 중에 손상을 일으킬 수 있음
- 호흡기계 자극을 일으킬 수 있음
- 장기간 또는 반복노출 되면 신체 중에 손상을 일으킴

**· 예방조치 문구**

- (분진·흙·가스·미스트·증기·스프레이)를(을) 흡입하지 마시오.
- (보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
- (라벨 참조) 처치를 하시오.
- 잠금장치가 있는 저장장소에 저장 하시오.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

**· 기타 유해성**

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

### 3 구성성분의 명칭 및 함유량

**· 화학적 특성: 혼합물**

**· 설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

**· 위험요소:**

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%
2426-08-6	(BGE) butyl glycidyl ether ⚠️ 인화성 액체 - 구분 3, H226; ⚠️ 생식세포 변이원성 - 구분 2, H341; 발암성 - 구분 2, H351; ⚠️ 급성 독성 - 경구 - 구분 4, H302; 급성 독성 - 흡입 - 구분 4, H332; 피부 과민성 - 구분 1, H317; 특정표적장기 독성 - 1회 노출 - 구분 3, H335; 수생환경 유해성 - 만성3, H412	10-25%

KR

(3 쪽에 계속)



# 물질안전보건자료

## GHS에 따라

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제품명: EPON-815 RESIN

(2 쪽부터 계속)

### 4 응급조치 요령

#### · 응급조치요령 내용

#### · 일반적 정보:

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

#### · 흡입했을 때:

신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.

환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

#### · 피부에 접촉했을 때:

즉시 물과 비누로 씻고 잘 행군다.

#### · 눈에 들어갔을 때:

흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다.

#### · 먹었을 때:

증상이 지속될 경우에는 의사와 상담한다.

#### · 기타 의사의 주의사항:

· 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.

· 즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

#### · 소화제

#### · 적절한 소화제:

이산화탄소, 진화용 석회 가루 또는 물 방사를 사용하고, 더 큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.

· 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.

#### · 소방관에 대한 권고사항

· 화재 진압 시 착용할 보호구 및 예방조치: 특별한 조치가 필요없음.

### 6 누출 사고 시 대처방법

· 개인적 예방조치, 보호장비 및 응급처치 절차 필요없음.

· 환경 관련 예방조치: 특별한 조치가 필요없음.

#### · 밀폐 및 정화 방법과 소재:

액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.

항목 13에 따라 오염된 물질을 쓰레기로 처분한다.

충분한 환기가 되도록 한다.

#### · 타 섹션 참조

안전 관리에 대한 정보는 제7 장을 참고하십시오.

개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.

쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

### 7 취급 및 저장방법

#### · 취급:

#### · 안전 취급을 위한 예방조치

작업장에서는 통풍이 잘 되고 습기 제거가 잘 되게 주의한다.

연무질이 형성되는 것을 피한다.

· 화재 및 폭발 사고 예방대책에 관한 정보: 특별한 조치가 필요없음.

#### · 혼합 위험성 등 안전 저장 조건

#### · 보관:

· 안전한 저장 방법: 특별한 요구사항이 없음.

· 하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음

(4 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

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- **보관 조건에 관한 추가적인 정보:** 용기를새지않게밀폐한채보관한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

### 8 노출방지 및 개인보호구

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

· **화학물질의 노출기준, 생물학적 노출기준 등:**

**2426-08-6 (BGE) butyl glycidyl ether**

TLV (KR)	장기간의값: 53 mg/m <sup>3</sup> , 10 ppm Skin
PEL (US)	장기간의값: 270 mg/m <sup>3</sup> , 50 ppm
REL (US)	최고노출기준: 30 mg/m <sup>3</sup> , 5.6 ppm *15-min
TLV (US)	장기간의값: 16 mg/m <sup>3</sup> , 3 ppm Skin; DSEN

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

- **노출 통제**
- **개인 보호구**

· **일반적보호조치및위생조치:**

- 식료 품, 음 료 수와 사 료로 부 터 멀 리 떨 어 뜨 려 놓 는 다.
- 더 러 워 지 거 나 음 료 수 가 물 은 옷 은 즉 시 탈 의 한 다.
- 휴 식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.
- 눈 과 피 부와 의 접 촉 은 피 한 다.

· **호흡기 보호:**

단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

· **손 보호:**



보 호 용 장 갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.  
테 슣 트 를 하 지 않 았 기 때 문 에 제 품 / 조 제 / 화 학 혼 합 물 에 적 합 한 장 갑 재 질 에 대 한 추 천 이 없 다.  
투과 시간, 침투율과저하를고려해서장갑재료를선택한다.

· **장갑의재료**

적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어져야한다.

· **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

· **눈 보호:**



팍 조 이 는 보 안 경

# 물질안전보건자료

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### 9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보	
· 일반정보	
· 외형	
· 물리적 상태:	액체
· 색:	연한 노랑
· 냄새:	특색있는
· 후각역치	알맞지않다.
· pH:	알맞지않다.
· 상태변화	
· 녹는점/어는점:	맞지않는
· 초기 끓는점과 끓는점 범위:	맞지않는
· 인화점:	73 °C
· 인화성(고체, 기체):	해당사항 없음.
· 점화온도:	215 °C
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	알맞지않다.
· 인화 또는 폭발 범위의 상한/하한	
· 아래로:	알맞지않다.
· 위로:	알맞지않다.
· 증기압 의경우 20 °C:	3.5 hPa
· 밀도 의경우 20 °C:	1.13 g/cm <sup>3</sup>
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도:	
· 물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도:	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매내용물	
· 유기용매:	0.0 %
· VOC (EU)	0.00 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

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

(6 쪽에계속)

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

### 11 독성에 관한 정보

- **독성학적 영향에 대한 정보**
- **급성 독성:**

· **LD/LC50-수치에 따른 분류:**

2426-08-6 (BGE) butyl glycidyl ether

구강의	LD50	2050 mg/kg (rat)
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피부의	LD50	2520 mg/kg (rabbit)
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- **일차적 자극 효과:**

- **피부 부식성 또는 자극성:** 피부와점막을자극한다.
- **심한 눈 손상 또는 자극성:** 자극
- **감각화:** 피부접촉을통하여감각화가가능성이있다.

- **추 가 적 인 독성 에 관 한 정 보:**

이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.

자극적인

- **다음 종류의 잠재적인 효과에 대한 정보**

- **CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)**  
생식세포 변이원성 - 구분 2, 발암성 - 구분 2

### 12 환경에 미치는 영향

- **독성**

- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.

- **추가적인 생태학 정보:**

- **일반 특징:** 수질오염이알려져있지않다.

- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**

- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.

- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

- **폐기물 처리 방법**

- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

- **비위생적 포장:**

- **권고:** 당국의지침에입각한쓰레기처리.

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# 물질안전보건자료 GHS에 따라

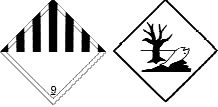
기압점: 2017.10.25

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## 14 운송에 필요한 정보

<ul style="list-style-type: none"> <li>· 유엔 번호</li> <li>· ADR, ADN</li> <li>· IMDG, IATA</li> </ul>	<p style="text-align: right;">누락되다 UN3082</p>
<ul style="list-style-type: none"> <li>· UN 적정 선적명</li> <li>· ADR, ADN</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p style="text-align: right;">누락되다 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.</p>
<ul style="list-style-type: none"> <li>· 교통 위험 클래스</li> <li>· ADR, ADN</li> <li>· 등급</li> <li>· IMDG, IATA</li> </ul>	<p style="text-align: right;">누락되다</p>
	<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul> <p style="text-align: right;">9 여러모로위험한물 질과물체 9</p>
<ul style="list-style-type: none"> <li>· 용기등급</li> <li>· ADR</li> <li>· IMDG, IATA</li> </ul>	<p style="text-align: right;">누락되다 III</p>
<ul style="list-style-type: none"> <li>· 환경적 유해물질:</li> <li>· 해양오염물질:</li> <li>· 특수 마킹 (IATA):</li> </ul>	<p style="text-align: right;">심벌 (물고기와 나무) 심벌 (물고기와 나무)</p>
<ul style="list-style-type: none"> <li>· 이용자 특별 예방조치</li> <li>· EMS-번호:</li> <li>· Stowage Category</li> </ul>	<p style="text-align: right;">해당사항 없음. F-A,S-F A</p>
<ul style="list-style-type: none"> <li>· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송</li> </ul>	<p style="text-align: right;">해당사항 없음.</p>
<ul style="list-style-type: none"> <li>· UN "모범 규제":</li> </ul>	<p style="text-align: right;">누락되다</p>

## 15 법적 규제현황

<ul style="list-style-type: none"> <li>· 산업안전보건법에 의한 규제:</li> </ul>	
<ul style="list-style-type: none"> <li>· 제조 등 금지물질:</li> </ul>	어떠한내용물도목록화 되어있지않다
<ul style="list-style-type: none"> <li>· 허가대상물질:</li> </ul>	어떠한내용물도목록화 되어있지않다
<ul style="list-style-type: none"> <li>· 관리대상유해물질:</li> </ul>	어떠한내용물도목록화 되어있지않다

(8 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.10.25

개정: 2017.10.25

**제품명: EPON-815 RESIN**

(7 쪽부터계속)

**· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률**

<b>· Korean Existing Chemical Inventory</b>		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	KE-24000
2426-08-6	(BGE) butyl glycidyl ether	KE-04158

**· 화학물질관리법**

<b>· 사고대비물질</b>
어떠한내용물도목록화되어있지않다

<b>· 금지물질</b>
어떠한내용물도목록화되어있지않다

<b>· 제한물질</b>
어떠한내용물도목록화되어있지않다

<b>· 유독물질</b>
어떠한내용물도목록화되어있지않다

<b>· 허가물질</b>
모든내용물이목록화되어있다

**· GHS 라벨 요소**

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

**· 그림문자**



GHS07    GHS08

**· 신호어 위험**

**· 상표상에명확히위험성이표시된성분:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)  
(BGE) butyl glycidyl ether

**· 유해.위험 문구**

- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 유전적인 결함을 일으킬 것으로 의심됨
- 암을 일으킬 것으로 의심됨
- 신체 중에 손상을 일으킬 수 있음
- 호흡기계 자극을 일으킬 수 있음
- 장기간 또는 반복노출 되면 신체 중에 손상을 일으킴

**· 예방조치 문구**

- (분진·흙·가스·미스트·증기·스프레이)를(을) 흡입하지 마시오.
- (보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으시오.
- (라벨 참조) 처치를 하시오.

잠금장치가 있는 저장장소에 저장 하시오.  
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

**· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음**

KR

(9 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.10.25

개정: 2017.10.25

**제품명: EPON-815 RESIN**

(8 쪽부터계속)

### 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은  
기술헌하지않았으며계약적인법률관계에기반을두고있지도않다

- **최초 작성일자:** 2017.10.25
- **개정 횟수 및 최종 개정일자:** 1 / 2017.10.25
- **약어와 두문자어:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

KR

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 25.10.2017

Revisión: 25.10.2017

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

- **1.1 Identificador del producto**
- **Nombre comercial:** EPON-815 RESIN
- **Número del artículo:** 14910
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**  
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aname**  
C/ Perez Galdos no. 2  
28693 Quijorna  
Madrid, Spain  
Tel: +34.91.816.89.50  
Fax: +34.91.816.85.94  
email: ventas@aname.es
- **Área de información:** Product safety department
- **1.4 Teléfono de emergencia:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS08 peligro para la salud

- Muta. 2 H341 Se sospecha que provoca defectos genéticos.  
 Carc. 2 H351 Se sospecha que provoca cáncer.  
 STOT SE 2 H371 Puede provocar daños en los órganos.  
 STOT RE 1 H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.



GHS07

- Skin Irrit. 2 H315 Provoca irritación cutánea.  
 Eye Irrit. 2 H319 Provoca irritación ocular grave.  
 Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.  
 STOT SE 3 H335 Puede irritar las vías respiratorias.

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

( se continua en página 2 )



# Ficha de datos de seguridad

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· **Pictogramas de peligro**

GHS07 GHS08

· **Palabra de advertencia Peligro**· **Componentes peligrosos a indicar en el etiquetaje:**

producto de reacción: bisfenol-A-epiclorhidrina resinas epoxi (peso molecular medio  $\leq 700$ )

Butil 2,3-epoxipropil eter

· **Indicaciones de peligro**

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H341 Se sospecha que provoca defectos genéticos.

H351 Se sospecha que provoca cáncer.

H371 Puede provocar daños en los órganos.

H335 Puede irritar las vías respiratorias.

H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

· **Consejos de prudencia**

P260 No respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.

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

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

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

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· **Datos adicionales:**

Contiene componentes epoxídicos. Puede provocar una reacción alérgica.

· **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: 2426-08-6 EINECS: 219-376-4	Butil 2,3-epoxipropil eter ⚠ Flam. Liq. 3, H226; ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	10-25%

( se continua en página 3 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

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

### SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**

· **Instrucciones generales:**

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

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

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

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

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

· **En caso de con los ojos:**

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

· **En caso de ingestión:** Consultar 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:**

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

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

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

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

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

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

· **6.2 Precauciones relativas al medio ambiente:** No se requieren medidas especiales.

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

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

Desechar el material contaminado como vertido según ítem 13.

Asegurar suficiente ventilación.

· **6.4 Referencia a otras secciones**

Ver capítulo 7 para mayor información sobre una manipulación segura.

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

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

### SECCIÓN 7: Manipulación y almacenamiento

· **7.1 Precauciones para una manipulación segura**

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Evitar la formación de aerosoles.

· **Prevención de incendios y explosiones:** No se requieren medidas especiales.

( se continua en página 4 )

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

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

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

- **8.1 Parámetros de control**

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

#### 2426-08-6 Butil 2,3-epoxipropil eter

LEP	Valor de larga duración: 16 mg/m <sup>3</sup> , 3 ppm Sen, vía dérmica
-----	---

- **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.

( se continua en página 5 )

# Ficha de datos de seguridad

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· **Protección de ojos:**

Gafas de protección herméticas

### SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**· **Datos generales**· **Aspecto:**

· <b>Forma:</b>	Líquido
· <b>Color:</b>	Amarillo claro
· <b>Olor:</b>	Característico
· <b>Umbral olfativo:</b>	No determinado.

· **valor pH:** No determinado.· **Cambio de estado**

· <b>Punto de fusión/punto de congelación:</b>	Indeterminado.
· <b>Punto inicial de ebullición e intervalo de ebullición:</b>	Indeterminado.

· **Punto de inflamación:** 73 °C· **Inflamabilidad (sólido, gas):** No aplicable.· **Temperatura de ignición:** 215 °C· **Temperatura de descomposición:** No determinado.· **Temperatura de auto-inflamación:** El producto no es autoinflamable.· **Propiedades explosivas:** No determinado.· **Límites de explosión:**

· <b>Inferior:</b>	No determinado.
· <b>Superior:</b>	No determinado.

· **Presión de vapor a 20 °C:** 3,5 hPa· **Densidad a 20 °C:** 1,13 g/cm<sup>3</sup>· **Densidad relativa:** No determinado.· **Densidad de vapor:** No determinado.· **Tasa de evaporación:** No determinado.· **Solubilidad en / miscibilidad con agua:**

Poco o no mezclable.

· **Coefficiente de reparto: n-octanol/agua:** No determinado.· **Viscosidad:**

· <b>Dinámica:</b>	No determinado.
· <b>Cinemática:</b>	No determinado.

· **Concentración del disolvente:**

· <b>Disolventes orgánicos:</b>	0,0 %
· <b>VOC (CE)</b>	0,00 %

( se continua en página 6 )

# Ficha de datos de seguridad

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· 9.2 Otros datos

No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

- 11.1 Información sobre los efectos toxicológicos
- Toxicidad aguda A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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

**2426-08-6 Butil 2,3-epoxipropil eter**

Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

- Efecto estimulante primario:
- Corrosión o irritación cutáneas  
Provoca irritación cutánea.
- 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  
Se sospecha que provoca defectos genéticos.
- Carcinogenicidad  
Se sospecha que provoca cáncer.
- Toxicidad para la reproducción A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- Toxicidad específica en determinados órganos (STOT) – exposición única  
Puede provocar daños en los órganos.
- Toxicidad específica en determinados órganos (STOT) – exposición repetida  
Provoca daños en los órganos tras exposiciones prolongadas o repetidas.
- Peligro de aspiración A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- 12.1 Toxicidad
- Toxicidad acuática: No existen más datos relevantes disponibles.
- 12.2 Persistencia y degradabilidad No existen más datos relevantes disponibles.
- 12.3 Potencial de bioacumulación No existen más datos relevantes disponibles.
- 12.4 Movilidad en el suelo No existen más datos relevantes disponibles.
- Indicaciones medioambientales adicionales:
- Indicaciones generales: No se tiene conocimiento de que represente un peligro para el agua.

( se continua en página 7 )

# Ficha de datos de seguridad

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Revisión: 25.10.2017

Nombre comercial: EPON-815 RESIN

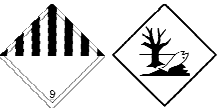
( se continua en página 6 )

- **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, ADN** suprimido
- **IMDG, IATA** UN3082
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR, ADN** suprimido
- **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.
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, ADN**
- **Clase** suprimido
- **IMDG, IATA**
- 
- **Class** 9 Materias y objetos peligrosos diversos
- **Label** 9
- **14.4 Grupo de embalaje**
- **ADR** suprimido
- **IMDG, IATA** III
- **14.5 Peligros para el medio ambiente:**
- **Contaminante marino:** Símbolo (pez y árbol)
- **Marcado especial (IATA):** Símbolo (pez y árbol)
- **14.6 Precauciones particulares para los usuarios** No aplicable.
- **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.

( se continua en página 8 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 25.10.2017

Revisión: 25.10.2017

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( se continua en página 7 )

· "Reglamentación Modelo" de la UNECE: suprimido

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- Directiva 2012/18/UE
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 3
- **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

- H226 Líquidos y vapores inflamables.
- H302 Nocivo en caso de ingestión.
- H315 Provoca irritación cutánea.
- H317 Puede provocar una reacción alérgica en la piel.
- H319 Provoca irritación ocular grave.
- H332 Nocivo en caso de inhalación.
- H335 Puede irritar las vías respiratorias.
- H341 Se sospecha que provoca defectos genéticos.
- H351 Se sospecha que provoca cáncer.
- H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.
- H412 Nocivo 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 3: Líquidos inflamables – Categoría 3
- Acute Tox. 4: Toxicidad aguda – Categoría 4
- 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
- Muta. 2: Mutagenicidad en células germinales – Categoría 2
- Carc. 2: Carcinogenicidad – Categoría 2
- STOT SE 2: Toxicidad específica en determinados órganos ( exposición única) – Categoría 2
- STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3
- STOT RE 1: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 1
- Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2
- Aquatic Chronic 3: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 3