

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/02/2018


Reviewed on 03/02/2018


1 Identification


- **Product identifier**
 - **Trade name:** EP1310 Clear B
 - **Recommended use:** Epoxy Hardener
 - **Restrictions on use:** For industrial use only
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.resinlab.com
 - **Information Department:** Product Safety Department: msds@resinlab.com
 - **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**


 GHS05


 GHS07
 - **Signal word** Danger
 - **Hazard-determining components of labeling:**
4,7,10-Trioxatridecane-1,13-Diamene
Poly(oxypropylene)diamine
Bisphenol-A-(epichlorohydrin) epoxy resin
 - **Hazard statements**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
 - **Precautionary statements**
Do not breathe dusts or mists.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Collect spillage.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
 - **NFPA System**
 - **NFPA ratings (scale 0 - 4)**



Health = 3
 Fire = 1
 Reactivity = 0
 - **NFPA special hazards (water reactivity and oxidizing property):** None
 - **HMIS System**
 - **HMIS-ratings (scale 0 - 4)**

HEALTH	*3
FIRE	1
REACTIVITY	0

Health = *3
 Fire = 1
 Reactivity = 0
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Dangerous components:**

CAS: 4246-51-9 EINECS: 224-207-2	4,7,10-Trioxatridecane-1,13-Diamene Skin Corr. 1B, H314 Skin Sens. 1, H317	40-50%
CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8	Bisphenol-A-(epichlorohydrin) epoxy resin Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	≥25-≤30%
CAS: 9046-10-0	Poly(oxypropylene)diamine Skin Corr. 1C, H314; Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 3, H402	≥20-<25%

· **Additional information:**

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Keep warm, position comfortably and cover well.
Immediately remove any clothing soiled by the product.

· **After inhalation:**

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
Supply fresh air and if symptoms occur 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.
Remove all contaminated clothing and wash before reuse.
Cover wound with sterile dressing. Continue to irrigate until medical care is received. Flush with copious amounts of water.
Seek medical treatment.

· **After eye contact:**

Immediately flush opened eyes with water for 5 minutes, then remove contact lenses if present, continue flushing for at least another 15 minutes.

Do not put any ointments, oils or medication in eyes without specific instructions.

Continue to irrigate eye until patient receives medical attention.

Get medical attention.

· **After swallowing:**

If victim is unconscious; never give anything by mouth.
Do NOT induce vomiting.

If victim is conscious, rinse out mouth with water.

Seek immediate medical advice.

If vomiting occurs spontaneously, keep victim's head below hips to prevent aspiration of liquid into lungs.

· **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**

Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Use fire fighting measures that suit the environment.

Alcohol resistant foam

Carbon dioxide

dry chemical

Fire-extinguishing powder

· **Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Phenolic compounds

Nitrogen oxides

May generate ammonia gas.

Carbon dioxide (CO₂) and Carbon monoxide (CO)

· **Advice for firefighters**

· **Protective equipment:**

Mouth respiratory protective device.

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).

As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.

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- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.
For small spills: Ventilate and wash area. Collect spills and absorbant material in appropriate container.
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Avoid breathing vapor or spray mists.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep away from incompatible material(s).
Avoid any release into the environment.
Do not breathe dust/fumes/mist/vapor/spray.
Avoid contact with eyes, skin and clothing.
Keep away from heat, sparks, flames and ignition sources.
Observe all the personal protection requirements in Section 8.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.
- **Exposure controls**
If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
If exposure limits have not been established, maintain airborne levels to an acceptable level.
- **Personal protective equipment:**
 - **General protective and hygienic measures:**
Be sure to clean skin thoroughly after work and before breaks.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
 - **Personal Protective Equipment (PPE)**
 - **Breathing equipment:**
Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.
Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.
 - **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - **Material of gloves**
- **Chemical resistant gloves**
- **Eye protection:**
- **Safety Glasses with side shields**
- **Body protection:** Appropriate chemical resistant clothing.
- **Limitation and supervision of exposure into the environment**
The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

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9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- **Form:** Liquid
- **Color:** Light yellow
- **Odor:** Amine-like
- **Odor threshold:** Not determined.

· **pH-value:** Not determined.

Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** >200 °C (>392 °F)

· **Flash point:** >110 °C (>230 °F)

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

· **Ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

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

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

Explosion limits:

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapor pressure:** Not determined.

· **Vapor Density:** not determined

· **Density at 20 °C (68 °F):** 1.03 g/cm³ (8.6 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

Solubility in / Miscibility with

· **Water:** Fully miscible.

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

Viscosity:

· **Dynamic:** Not available.

· **Kinematic:** Not available.

· **VOC content:** 0.00 %
0.0 g/l / 0.00 lb/gl

10 Stability and reactivity

· **Reactivity** Not a regulated physical hazard under GHS.

· **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.

· **Thermal decomposition / conditions to be avoided:**

To avoid thermal decomposition do not overheat.

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** In contact with incompatible materials.

· **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.

· **Incompatible materials:**

sodium hypochlorite and peroxides.

Oxidizing agents

Organic acids

Mineral acid (or Inorganic acid)

Copper and copper alloys

Aluminum

Zinc and Galvanized Surfaces

· **Hazardous decomposition products:** Possible in traces.

· **Additional information:**

As long as the prescribed application concentrations are maintained there is no danger that stable emulsions will form.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

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

4246-51-9 4,7,10-Trioxatridecane-1,13-Diamene

Oral	LD50	4,310 mg/kg (rat)
Dermal	LD50	2,500 mg/kg (rabbit) (Calculated from LD50 of 2.5 mL/kg)
Inhalative	LC50/4 h	mg/l (No data available)

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Oral	LD50	11,400 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit) (Test guideline not available)
Inhalative	LC50/4 h	mg/l (Test species: n/a) (Toxicity not expected based on the acute oral data)

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9046-10-0 Poly(oxypropylene)diamine

Oral	LD50	2,885 mg/kg (rat) (similar to OECD guideline 401) Reference: Vendor SDS (2015).
Dermal	LD50	2,980 mg/kg (rabbit) (similar to OECD guideline 402) Reference: Vendor SDS (2015).
Inhalative	LC50/4 h	mg/l (read across from 101-68-8) (Exposure Time 8h)

- **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

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

Corrosive

Irritant

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

- **Carcinogenic categories**

- **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:**

4246-51-9 4,7,10-Trioxatridecane-1,13-Diamene

EC50 | mg/kg (rabbit)

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

EC50 | mg/kg (rabbit)

9046-10-0 Poly(oxypropylene)diamine

EC50 | mg/kg (rabbit) (similar to OECD guideline 404)

Reference: Vendor SDS 2015

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

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No data available.

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

- **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.

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

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- **Results of PBT and vPvB assessment**

- **PBT:** None of the ingredients is listed.

- **vPvB:** None of the ingredients is listed.

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

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must be specially treated adhering to official regulations.

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

- **Uncleaned packagings:**

- **Recommendation:** Dispose of according to your local waste regulations.

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

14 Transport information

- **UN-Number**

- **DOT, IMDG, IATA**

UN2735

- **UN proper shipping name**

- **DOT**

Amines, liquid, corrosive, n.o.s. (4,7,10-Trioxatridecane-1,13-Diamene)

- **IMDG**

AMINES, LIQUID, CORROSIVE, N.O.S. (4,7,10-Trioxatridecane-1,13-Diamene, Poly(oxypropylene)diamine), MARINE POLLUTANT

- **IATA**

AMINES, LIQUID, CORROSIVE, N.O.S. (4,7,10-Trioxatridecane-1,13-Diamene, Poly(oxypropylene)diamine)

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· Transport hazard class(es)
· DOT

 · Class
 · Label

8 Corrosive substances

8

· IMDG

 · Class
 · Label

8 Corrosive substances

8

· IATA

 · Class
 · Label

8 Corrosive substances

8

· Packing group
· DOT, IMDG, IATA

III

· Environmental hazards:

Not applicable.

· Special precautions for user

Warning: Corrosive substances

· Danger code (Kemler):

80

· EMS Number:

F-A,S-B

· Stowage Category

A

· Segregation Code

SG35 Stow "separated from" acids.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:
· DOT

· Quantity limitations

 On passenger aircraft/rail: 5 L
 On cargo aircraft only: 60 L

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

 Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4,7,10-TRIOXATRIDECANE-1,13-DIAMENE), 8, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· SARA Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· SARA Section 311/312 (Hazardous Chemical Inventory Reporting)

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

A, C ≥25-≤30%

9046-10-0 Poly(oxypropylene)diamine

A ≥20-<25%

· Hazard Abbreviations for SARA 311/312

A - Acute Health Hazard

C - Chronic Health Hazard

F - Fire Hazard

R - Reactive Hazard

S - Sudden Release of Pressure Hazard

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

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Proposition 65

Chemicals known to cause cancer:

106-89-8 1-chloro-2,3-epoxypropane

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

106-89-8 1-chloro-2,3-epoxypropane

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

International Regulation Lists

GHS label elements GHS label elements

REACH - Substances of Very High Concern (SVHC) List:

None of the ingredients is listed.

Restriction of Hazardous Substances Directive (RoHS) list:

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.

Department Issuing (M)SDS: Product Development Department

Contact: msds@resinlab.com

Date of preparation / last revision 03/02/2018 / 3

*** Data compared to the previous version altered.**