

Safety Data Sheet acc. to OSHA HCS

Printing date 05/19/2017

Reviewed on 05/19/2017

1 Identification

- **Product identifier**
 - **Trade name:** EP1306 B
 - **Application of the substance / the mixture** Epoxy Hardener
- **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: mdsd@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:**

Poly(oxypropylene)diamine
3,3'-oxybis(ethyleneoxy)bis(propylamine)
Bisphenol-A-(epichlorohydrin) epoxy resin
1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid

- **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.
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.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA System**

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



NFPA special hazards (water reactivity and oxidizing property): None

- **HMIS System**

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



- **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: 7429-90-5 EINECS: 231-072-3 Index number: 013-001-00-6 RTECS: BD 0330000	Aluminum Flam. Sol. 2, H228; Water-react. 2, H261	40-50%
CAS: 9046-10-0	Poly(oxypropylene)diamine Skin Corr. 1C, H314; Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 3, H402	10-20%
CAS: 4246-51-9 EINECS: 224-207-2	3,3'-oxybis(ethyleneoxy)bis(propylamine) Met. Corr. 1, H290; Skin Corr. 1B, H314 Skin Sens. 1, H317	10-20%
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	10-20%
CAS: 74398-71-3 EC number: 616-085-8	1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid Skin Sens. 1, H317	5-<10%
CAS: 67762-90-7 EC number: 614-122-2	Siloxanes and Silicones, di-Me, reaction products with silica	1-2.5%
CAS: 112945-52-5 EINECS: 231-545-4	silicon dioxide amorphous STOT SE 3, H335	1-2.5%

• **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:**

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.
If skin irritation or rash occurs, get medical advice/attention.

• **After eye contact:**

Rinse opened eye for 10-15 minutes under running water. Then consult a doctor.
Remove contact lenses if present and easy to do so; continue rinsing.
Do not put any ointments, oils or medication in eyes without specific instructions.
Get medical attention.

• **After swallowing:**

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

Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
water fog

Use fire fighting measures that suit the environment.

• **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

In case of fire, the following can be released:

ammonia
nitric acid
Nitrogen oxides (NOx)
Formaldehyde, a skin and lung sensitizer and a regulated carcinogen, may be formed during fires.
Phenolic compounds

• **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).

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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 equipment. Keep unprotected persons away.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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).
Use neutralizing agent if necessary.
Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep away from incompatible material(s).
Avoid any release into the environment.
For industrial or professional use only.
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:**

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
OSHA PEL	Short-term value: 15 mg/m ³
US ACGIH	Short-term value: 10 mg/m ³

 - **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.
Wash hands before breaks and at the end of work.
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

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- **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.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

- **Form:** Pasty
- **Color:** Grey
- **Odor:** Pungent
- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

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

- **Flash point:** >171 °C (>340 °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):** 1.59 g/cm³ (13.269 lbs/gal)

- **Relative density:** Not determined.

- **Vapor density:** Not determined.

- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with**

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

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

- **Viscosity:**

- **Dynamic:** 1,850,000 mPas (25 °C)

- **Kinematic:** Not determined.

- **Solvent content:**

- **Organic solvents:** 0.0 %

- **VOC content:** 0.0 g/l / 0.00 lb/gl

- **Solids content:** 50.5 %

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, Nitrous acid and other nitrosating agents

Metals

Mercaptans

Amines

Oxidizing agents

Strong reducing agents

Acids

- **Hazardous decomposition products:**

Possible in traces.

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Refer to section 5.

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:

While not a classified acute oral hazard, the product may cause the following symptom(s):
 diarrhea
 abnormal pain, headache, nausea, vomiting, drowsiness
 Not a classified acute oral hazard.

7429-90-5 Aluminum

Oral	LD50	> 15900 mg/kg (rat) (OECD TG 401) No death; no changes in gross pathology or clinical signs. Reference: ECHA (2011).
Dermal	LD50	(No data available) Based on the acute oral toxicity test, it was expected that toxicity to mammals via dermal application of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute dermal hazard.
Inhalative	LC50/4 h	(No data available) Due to wetted form of the substance, inhalative effects from dust form can be seen as negligible. Meanwhile, based on the acute oral toxicity test, it was expected that toxicity to mammals via inhalation of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute inhalation hazard.

9046-10-0 Poly(oxypropylene)diamine

Oral	LD50	2885 mg/kg (rat) (similar to OECD guideline 401) Reference: Vendor SDS (2015).
Dermal	LD50	2980 mg/kg (rabbit) (similar to OECD guideline 402) Reference: Vendor SDS (2015).
Inhalative	LC50/4 h	not classified mg/l (read across from 101-68-8) (Exposure Time 8h)

4246-51-9 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Oral	LD50	3160 mg/kg (rat)
Dermal	LD50	2500 mg/kg (rabbit) (Calculated from LD50 of 2.5 mL/kg)
Inhalative	LC50/4 h	(No data available)

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

Oral	LD50	11400 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit) (Test guideline not available)
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on the acute oral data)

74398-71-3 1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on the acute oral data)

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Oral	LD50	>5000 mg/kg (rat) (test method not specified)
Dermal	LD50	(Test species: n/a) (Toxicity not expected based on acute oral data)
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on acute oral data)

112945-52-5 silicon dioxide amorphous

Oral	LD50	> 3160 mg/kg (mouse) > 5000 mg/kg (rat) (OECD TG 401 A)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 2.08 mg/l (rat)

• **Specific symptoms in biological assay:** Not a classified acute dermal hazard.

Primary irritant effect:

cough

Not a classified acute inhalative hazard.

- **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.

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· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

112945-52-5 silicon dioxide amorphous

3

· 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:

7429-90-5 Aluminum

EC50 not irritating mg/kg (rabbit) (OECD TG 404)
 Erythema and edema: 0 (Mean score of all treated animals; Time point: 24+48+72 hrs); the substance was not irritating to skin.
 Reference: ECHA (2011).

9046-10-0 Poly(oxypropylene)diamine

EC50 corrosive mg/kg (rabbit) (similar to OECD guideline 404)
 Reference: Vendor SDS 2015

4246-51-9 3,3'-oxybis(ethyleneoxy)bis(propylamine)

EC50 corrosive mg/kg (rabbit) (serious and irreversible skin effects observed)

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

EC50 irritating mg/kg (rabbit)

74398-71-3 1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid

EC50 slightly irri. mg/kg (Test species: n/a)
 Based on manufacturer's test result, the substance was slightly irritating to skin (Category 3).
 Reference: Hexion (M)SDS (2003).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

EC50 Non-irritating mg/kg (Test species: n/a) (Primary irritation index=0)

112945-52-5 silicon dioxide amorphous

EC50 not Irritating mg/kg (rabbit) (OECD TG 404)

· **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:

Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Danger to drinking water if even small quantities leak into the ground.

· 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.

14 Transport information

· UN-Number

· DOT, IMDG, IATA

UN2735

· UN proper shipping name

· DOT

Amines, liquid, corrosive, n.o.s. (Diethyleneglycol aminopropyl ether)

· IMDG

AMINES, LIQUID, CORROSIVE, N.O.S. (Diethyleneglycol aminopropyl ether), MARINE POLLUTANT

· IATA

AMINES, LIQUID, CORROSIVE, N.O.S. (Diethyleneglycol aminopropyl ether)

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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:
 · Marine pollutant:

 Yes (DOT)
 Symbol (fish and tree)

 · Special precautions for user
 · Danger code (Kemler):
 · EMS Number:
 · Stowage Category
 · Segregation Code

 Warning: Corrosive substances
 80
 F-A,S-B
 A
 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

· Remarks:

Special marking with the symbol (fish and tree).

· IMDG

 · Limited quantities (LQ)
 · Excepted quantities (EQ)

 5L
 Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

 UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S.
 (DIETHYLENEGLYCOL AMINOPROPYL ETHER), 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):

7429-90-5	Aluminum	40-50%
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· SARA Section 311/312 (Hazardous Chemical Inventory Reporting)

9046-10-0	Poly(oxypropylene)diamine	A	10-20%
4246-51-9	3,3'-oxybis(ethyleneoxy)bis(propylamine)	A, C	10-20%
25068-38-6	Bisphenol-A-(epichlorohydrin) epoxy resin	A, C	10-20%
74398-71-3	1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid	A, C	5-<10%

· Hazard Abbreviations for SARA 311/312

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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):**

7429-90-5	Aluminum
9046-10-0	Poly(oxypropylene)diamine
4246-51-9	3,3'-oxybis(ethyleneoxy)bis(propylamine)
25068-38-6	Bisphenol-A-(epichlorohydrin) epoxy resin
74398-71-3	1, 2, 3-Propanetriyl ester of 12-(oxiranylmethoxy)-9-octadecanoic acid
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica

· **Proposition 65**

· **Chemicals known to cause cancer:**

106-89-8	1-chloro-2,3-epoxypropane
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· **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
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· **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)**

7429-90-5	Aluminum	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **International Regulation Lists**

· **Chinese Chemical Inventory of Existing Chemical Substances:**

All ingredients are listed.

· **GHS label elements** GHS label elements

· **National regulations:**

· **Japanese Existing and New Chemical Substance List:**

All ingredients are listed.

· **Korean Existing Chemical Inventory:**

All ingredients are listed.

· **European Pre-registered substances:**

All ingredients are listed.

· **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** 05/19/2017 / 4
- * **Data compared to the previous version altered.**