Safety Data Sheet
1560 CASTING EPOXY - HARDENER
Revision date: 2018/11/29

1. Identification

Product identifier used on the label

1560 CASTING EPOXY - HARDENER

Recommended use of the chemical and restriction on use: Epoxy Curing Agent

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company: B.D. Classic Enterprises
P.O. 2445
Santa Fe Springs, CA 90670
562-944-6177

Emergency telephone number

CHEMTREC: 1-800-424-9300

Other means of identification

Chemical family: amine
Synonyms: Polyetheramine

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>4 (oral)</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Acute Tox.</td>
<td>4 (dermal)</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Eye Dam./Irrit.</td>
<td>1</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>2</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>2</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
</tbody>
</table>

Label elements
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Pictogram:

Signal Word: Danger

Hazard Statement:
H318 Causes serious eye damage.
H302 + H312 Harmful if swallowed or in contact with skin
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P280 Wear protective gloves and eye/face protection.
P273 Avoid release to the environment.
P270 Do not eat, drink or smoke when using this product.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P361 + P364 Take off immediately contaminated clothing and wash it before reuse.
P391 Collect spillage

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>39423-51-3</td>
<td>&gt; 75%</td>
<td>Polyetheramine</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>&lt; 25%</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>
4. First-Aid Measures

Description of first aid measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

If on skin:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, carbon dioxide, foam

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Impact Sensitivity:
Remarks: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
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Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions
This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up
Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling
 Containers should be opened carefully in well-ventilated areas to avoid static discharge.

Protection against fire and explosion:
 Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities
 Segregate from acids and acid forming substances.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking. Keep container tightly closed.

Storage stability:
 Keep container dry because product takes up the humidity of air.

8. Exposure Controls/Personal Protection

Components with workplace control parameters
 Contains no substances with established exposure limit values.

Appropriate Engineering Controls
 Provide local exhaust ventilation to control vapors/mists.

Personal protective equipment

Respiratory protection:
 Do not breathe dust/fume/gas/mist/vapors/spray. If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Where risk assessment shows air-purifying respirators are appropriate wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Do not exceed maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:
 Chemical resistant protective gloves

Eye protection:
 Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Body protection:
 Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
 Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as
necessary to prevent contact. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke. Remove contaminated clothing. Store work clothing separately.

9. Physical and Chemical Properties

Form: liquid
Odor: amine-like
Color: Clear
pH value: 11-12 (100 g/l)
Melting point: < -25 °C
Boiling point: > 225 °C
Flash point: 190 °C (ASTM D93)
Flammability: not flammable (other)
Lower explosion limit: For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit: For liquids not relevant for classification and labelling.

Autoignition: > 300 °C
Vapor pressure: 1.5 mbar (20 °C)
10.2 mbar (55 °C)
Density: 0.98 g/cm³ (20 °C)

Partitioning coefficient n-octanol/water (log Pow): -1.13 (25 °C) (calculated)

Self-ignition temperature: Non self-igniting
Thermal decomposition: 140 °C, 30 kJ/kg (DSC (DIN 51007))
308 °C, > 340 kJ/kg (DSC (DIN 51007))
Thermal decomposition above the indicated temperature is possible. self-accelerating reaction
Viscosity, kinematic: 110 mm²/s (20 °C)
Solubility in water: 550 g/l (20 °C) miscible
Evaporation rate: Value can be approximated from Henry's Law Constant or vapor pressure.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to Metals:
Corrosive effect on metals

Oxidizing Properties:
Not fire propagating (regulation 440/2008/EC, A.21)
Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is chemically stable.

Conditions to avoid
No conditions known that should be avoided.

Incompatible materials
acids

Hazardous decomposition products
Decomposition products:
No hazardous decomposition products known.

Thermal decomposition:
145 °C (DSC (DIN51007))
315 °C (DSC (DIN51007))
Thermal decomposition above the indicated temperature is possible. self-accelerating reaction

11. Toxicological information

Primary routes of exposure
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Of high toxicity after single ingestion. Virtually nontoxic after a single skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

Oral
Type of value: LD50
Species: rat
Value: > 550 - < 2000 mg/kg (OECD Guideline 425)

Inhalation
Value: LC0
Species: rat
Value: 113 mg/l (IRT)
Exposure time: 8 h
The vapor was tested
No mortality within the stated exposition time as shown in animal studies.

Dermal
Type of value: LD50
Species: rat
Value: > 1,000 mg/kg (OECD Guideline 402)

Assessment other acute effects
Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a
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single exposure.

Irritation / corrosion
Assessment of irritating effects: May cause slight irritation to the skin. May cause severe damage to the eyes

Skin
Species: Rabbit
Result: Slightly irritating
Method: OECD Guideline 404

Eye
Species: In vitro assay
Result: Risk of serious damage to eyes.
Method: HET-CAM test in vitro

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Buehler test
Species: guinea pig
Result: Non-sensitizing
Method: similar to OECD guideline 406

Aspiration Hazard:
No aspiration hazard expected

Chronic Toxicity/Effects

Repeated Dose Toxicity:
Assessment of repeated dose toxicity: No adverse effects were observed after repeated dermal exposure in animal studies. After repeated exposure the prominent effect is local irritation.

Genetic toxicity
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not metagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Carcinogenicity
Assessment of carcinogenicity: No data available.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

Teratogenicity
Assessment of teratogenicity: In animal studies the substance did not cause malformations. The results were determined in a Screening test (OECD 421/422).

Symptoms of Exposure
The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11. Further symptoms are possible

Medical conditions aggravated by overexposure
Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See SDS section 11 - Toxicological information.

12. Ecological Information
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Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition

Toxicity to fish:
LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss (OECD 203; ISO 7346; 84/449/EEC, C.1)
The details of the toxic effect relate to the nominal concentration

Aquatic invertebrates
EC50 (48 h) 13.0 mg/l, Daphnia magna (OECD Guideline 202, part 1, static) Nominal values (confirmed by concentration control analytics)

Aquatic plants
EC50 (72 h) 4.4 mg/l (growth rate), pseudokirchneriella subcapitata (OECD Guideline 201). The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

No observed effect concentration 1 mg/l (growth rate), pseudokirchneriella subcapitata (OECD Guideline 201). The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish
No data available

Chronic toxicity to aquatic invertebrates
No data available

Assessment of terrestrial toxicity
No data available

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aerobic
activated sludge, domestic/EC20 (30 min): approx. 130 mg/l
The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Not readily biodegradable (by OECD criteria). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Elimination information

< 10 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulative potential

Bioaccumulation potential
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.
Additional information

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

13. Disposal considerations

Waste disposal of substance:
Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:
Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport
USDOT
Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

Sea transport
IMDG
Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Marine pollutant: NO
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

Air transport
IATA/ICAO
Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product

California Prop 65 Components:
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
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NFPA Hazard codes:
Health : 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 3 Flammability: 1 Physical hazard:0

Assessment of the hazard classes according to UN GHS criteria (most recent version):
Aquatic Acute 2 Hazardous to the aquatic environment - acute
Aquatic Chronic 2 Hazardous to the aquatic environment - chronic
Acute Tox. 4 (oral) Acute toxicity
Acute Tox. 4 (dermal) Acute toxicity
Skin Corr./Irrit. 3 Skin corrosion/irritation
Eye Dam./Irrit. 1 Serious eye damage/eye irritation

16. Other Information

SDS Prepared by:
B.D. Classic Enterprises

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To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. B. D. Classic does not undertake to furnish advice on such matters.