Safety Data Sheet
prepared to UN GHS Revision 3

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier

Product Name: Epoxy.com Product #3301 Hardener B

1.2 Relevant identified uses of the substance or mixture and uses advised against

Component of multicomponent industrial coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Epoxy Systems, Inc DBA Epoxy.com
20774 W. Pennsylvania Ave
Dunnellon, FL 34431
sales@epoxy.com
www.epoxy.com
Tel: (352) 489-1666
Fax: (352) 489-1625

Datasheet Produced by: Lambert, Norm norm@epoxy.com

1.4 Emergency telephone number:

PERS (USA) 800-633-8253 —
(International) +1 (801) 629-0667.

2. Hazard Identification

2.1 Classification of the substance or mixture

- Acute Toxicity, Inhalation, category 2
- Hazardous to the aquatic environment, Chronic, category 3
- Skin Corrosion, category 1
- Skin Sensitizer, category 1
2.2 Label elements

Symbol(s) of Product

Signal Word
Danger

Named Chemicals on Label
Benzylic alcohol, benzene-1, 3-dimethanamine, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine

HAZARD STATEMENTS

Acute Toxicity, Oral, category 4  H302  Harmful if swallowed.
Skin Corrosion, category 1B  H314  Causes severe skin burns and eye damage.
Skin Sensitizer, category 1  H317  May cause an allergic skin reaction.

PRECAUTION PHRASES

P260  Do not breathe dust/fume/gas/mist/vapours/spray.
P264  Wash hands thoroughly after handling.
P270  Do no eat, drink or smoke when using this product.
P273  Avoid release to the environment.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P284  Wear respiratory protection.
P301+310  IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352  IF ON SKIN: Wash with plenty of soap and water.
P304+340  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313  If skin irritation or rash occurs: Get medical advice/attention.
P363  Wash contaminated clothing before reuse.
P403+233  Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards
No Information

Results of PBT and vPvB assessment:
The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-51-6</td>
<td>Benzylic alcohol</td>
<td>25-50</td>
</tr>
<tr>
<td>2855-13-2</td>
<td>3-Aminomethyl-3,5,5-trimethylcyclohexylamine (IPDA)</td>
<td>25-50</td>
</tr>
<tr>
<td>1477-55-0</td>
<td>benzene-1, 3-dimethanamine (MXDA)</td>
<td>10-25</td>
</tr>
</tbody>
</table>
4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe burns. Harmful in contact with skin and if swallowed. Irritating to eyes and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further
7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist.
PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat.
STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No</th>
<th>OSHAPEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-Aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>2855-13-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>benzene-1, 3-dimethanamine</td>
<td>1477-55-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection
RESPIRATORY PROTECTION: Respirator with filter for organic vapor.
EYE PROTECTION: Safety glasses.
HAND PROTECTION: Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.
OTHER PROTECTIVE EQUIPMENT: No Information
ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Light yellow - clear
Physical State: Liquid
Odor: Amine like
Odor threshold: Not determined
pH: 11-12
Melting point / freezing point (°C): Not determined
Boiling point/range (°C): 302 F - N.D.
Flash Point, (°F / °C): >200 F
Evaporation rate: Not determined
Flammability (solid, gas) Not determined
Upper/lower flammability or explosive limits 999 - 0
Vapour Pressure Not determined
Vapour density ca. 1.05 g/cm³
Relative density Not determined
Solubility in / Miscibility with water Limited
Partition coefficient: n-octanol/water Not determined
Auto-ignition temperature (°C) Not determined
Decomposition temperature (°C) Not determined
Viscosity Not determined
Explosive properties N/A
Oxidising properties Not determined

9.2 Other information
VOC Content g/l: 12
Density (lbs./gal) 8.74

10. Stability and Reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerisation may occur.

10.4 Conditions to avoid
Direct sources of heat.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products
Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NOₓ), dense black smoke.
11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information
Inhalation LC50: No information

Irritation: No information available.

Corrosivity: Causes burns. Dehydrating on skin. Eye contact may cause irreversible damage.

Sensitization: Prolonged or repeated skin contact may result in allergic eczema.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Vapor LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-51-6</td>
<td>Benzyl alcohol</td>
<td>1230 mg/kg, rat</td>
<td>2000 mg/kg, rabbit</td>
<td>1000 ppm, 8 hours rat</td>
</tr>
<tr>
<td>2855-13-2</td>
<td>3-Aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>500 mg/kg oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1477-55-0</td>
<td>benzene-1, 3-dimethanamine</td>
<td>1514 mg/kg, oral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Information:
No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information
IC50 72hr (Algae): No information
LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment:
The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.
12.6 Other adverse effects: No information

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>EC50 48hr</th>
<th>IC50 72hr</th>
<th>LC50 96hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-51-6</td>
<td>Benzyl alcohol</td>
<td>230 mg/l</td>
<td>700 mg/l</td>
<td>460 mg/l</td>
</tr>
<tr>
<td>2855-13-2</td>
<td>3-Aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>1477-55-0</td>
<td>benzene-1, 3-dimethanamine</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1 UN number UN2735
14.2 UN proper shipping name Amines, Liquid, Corrosive, N.O.S. (Isophorone Diamine, Xylene Diamine)
14.3 Transport hazard class(es) 8
   Subsidiary shipping hazard N/A
14.4 Packing group PG III
14.5 Environmental hazards RQ 1001 lbs.
14.6 Special precautions for user Not applicable
   EmS-No.: Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:
Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.
**U.S. Clean Air Act:**

<table>
<thead>
<tr>
<th>EPA Coating Category</th>
<th>Floor Coatings</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA VOC Content (g/l)</td>
<td>400</td>
</tr>
<tr>
<td>Product VOC Content (g/l)</td>
<td>12</td>
</tr>
<tr>
<td>Thinning Recommendations</td>
<td>None</td>
</tr>
<tr>
<td>Application Recommendations</td>
<td>For professional use only.</td>
</tr>
</tbody>
</table>

* As per the federal EPA definition for coating categories in 40 CFR 59.401.
** Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

**U.S. State Regulations: As follows -**

**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Chemical Name Found</td>
<td></td>
</tr>
</tbody>
</table>

**Pennsylvania Right-To-Know**

The following non-hazardous ingredients are present in the product at greater than 3%.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Chemical Name Found</td>
<td></td>
</tr>
</tbody>
</table>

**California Proposition 65:**

No Proposition 65 Chemicals exist in this product.

**International Regulations: As follows -**

* **Canadian DSL:**

  All chemical ingredients included on inventory or exempt.

**15.2 Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**16. Other Information**

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

<table>
<thead>
<tr>
<th>Hazard Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Reasons for revision**

Substance and/or Product Properties Changed in Section(s):

02 - Hazard Identification

Revision Statement(s) Changed

This is a new Safety Data Sheet (SDS).

List of References:
This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark; European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830; European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP); EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP Classification, Labeling & Packaging Regulation  
EC European Commission  
EU European Union  
US United States  
CAS Chemical Abstract Service  
EINECS European Inventory of Existing Chemical Substances  
REACH Registration, Evaluation, Authorization of Chemicals Regulation  
GHS Globally Harmonized System of Classification and Labeling of Chemicals  
LTEL Long term exposure limit  
STEL Short term exposure limit  
OEL Occupational exposure limit  
ppm Parts per million  
mg/m3 Milligrams per cubic meter  
TLV Threshold Limit Value  
ACGIH American Conference of Governmental Industrial Hygienists  
OSHA Occupational Safety & Health Administration  
PEL Permissible Exposure Limits  
VOC Volatile organic compounds  
g/l Grams per liter  
mg/kg Milligrams per kilogram  
N/A Not applicable  
LD50 Lethal dose at 50%  
LC50 Lethal concentration at 50%  
IC50 Half maximal effective concentration Half  
IC50 maximal inhibitory concentration  
PBT Persistent bioaccumulative toxic chemical  
EEC Very persistent and very bioaccumulative  
ADR European Economic Community  
RID International Transport of Dangerous Goods by Road  
UN International Transport of Dangerous Goods by Rail  
IMDG United Nations  
IATA International Maritime Dangerous Goods Code  
MARPOL International Air Transport Association  
IBC International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978  
RTI Respiratory Tract Irritation  
NE Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.