1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name  EpoThin 2 Epoxy Resin
(M)SDS Number  1514067_A

Other means of identification

UN-No.  UN3082
Synonyms  None

Recommended use of the chemical and restrictions on use

Recommended Use  Laboratory Use Only
Uses advised against  No information available

Details of the supplier of the safety data sheet

Manufacturer  Buehler
Manufacturer Address  41 Waukegan Rd
Lake Bluff, IL 60044
www.buehler.com
Phone number  +1 847 295 6500
E-mail Address  custserv@buehler.com

Emergency telephone number

Global Access Code: 334545
Americas: +1 760 476 3962  Asia Pacific: +1 760 476 3960
Middle East/Africa: +1 760 476 3959  Europe: +1 760 476 3961

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements
Emergency Overview

**Signal word**: Warning

**Hazard Statements**
- Causes skin irritation
- Causes serious eye irritation
- May cause an allergic skin reaction

**Appearance**: Clear to slightly hazy, yellow

**Physical state**: Liquid

**Odor**: Mild

**Precautionary Statements - Prevention**
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Wear eye/face protection

**Precautionary Statements - Response**
Specific treatment (see supplemental first aid instructions on this label)

**Eyes**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention

**Skin**
- IF ON SKIN: Wash with plenty of soap and water
- Take off contaminated clothing and wash before reuse
- If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Storage**
None

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
Not applicable

**Unknown Toxicity**
20 % of the mixture consists of ingredient(s) of unknown toxicity

**Other information**
Toxic to aquatic life with long lasting effects

**Interactions with Other Chemicals**
No information available.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A - Epichlorohydrin polymer</td>
<td>25068-38-6</td>
<td>50 - 80%</td>
<td>*</td>
</tr>
<tr>
<td>Trimethylolpropane triacrylate</td>
<td>15625-89-5</td>
<td>1 - 15%</td>
<td>*</td>
</tr>
<tr>
<td>Glycidyl ether blend</td>
<td>Proprietary</td>
<td>1 - 40%</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

**General Advice**
Show this safety data sheet to the doctor in attendance.

**Eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

**Skin contact**
Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

**Inhalation**
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

**Ingestion**
Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider**
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects**

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**
May cause sensitization in susceptible persons. Treat symptomatically.
5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Dry chemical, CO2, water spray or regular foam. Dike fire-control water for later disposal.

Unsuitable extinguishing media
Do not use halogenated extinguishing agents or foam. Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical
Some may burn but none ignite readily. Some may be transported hot.

Uniform Fire Code
Sensitizer: Liquid

Hazardous Combustion Products
Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact
No.

Sensitivity to Static Discharge
No.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Other Information
Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Take up with sand, earth or other non-combustible absorbent material. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible Products

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
If splashes are likely to occur:. Wear safety glasses with side shields (or goggles). None required for consumer use.

Skin and body protection
Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>UNKNOWN</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>&lt; 0 °C</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 200 °C</td>
<td>None known</td>
<td></td>
</tr>
</tbody>
</table>

Physical state: Liquid
Appearance: Clear to slightly hazy, yellow
Color: Light yellow
Odor: Mild
Odor Threshold: No information available
**Flash Point**  > 100 °C
**Evaporation Rate**  No data available
**Flammability (solid, gas)**  No data available
**Flammability Limit in Air**
  - Upper flammability limit  No data available
  - Lower flammability limit  No data available
**Vapor pressure**  No data available
**Vapor density**  No data available
**Specific Gravity**  1.11
**Water Solubility**  No data available
**Partition coefficient: n-octanol/water**  No data available
**Autoignition temperature**  >300 °C
**Decomposition temperature**  No data available
**Kinematic viscosity**  No data available
**Dynamic viscosity**  500 cp @ 25C
**Explosive properties**  No data available
**Oxidizing properties**  No data available

**Other Information**
- **Softening Point**  No data available
- **VOC Content (%)**  No data available
- **Particle Size**  No data available
- **Particle Size Distribution**  No data available

## 10. STABILITY AND REACTIVITY

**Reactivity**
No data available.

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous Polymerization**
Hazardous polymerization does not occur.

**Conditions to avoid**
None known based on information supplied.

**Incompatible materials**

**Hazardous Decomposition Products**
Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

- **Inhalation**
  Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact
Specific test data for the substance or mixture is not available. (based on components). May cause redness, itching, and pain. Causes serious eye irritation.

Skin contact
Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Prolonged contact may cause redness and irritation.

Ingestion
Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A - Epichlorohydrin polymer 25068-38-6</td>
<td>= 11400 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trimethylolpropane triacrylate 15625-89-5</td>
<td>= 5190 µL/kg (Rat)</td>
<td>= 5000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
May cause sensitization in susceptible persons. May cause sensitization by skin contact.

Mutagenic Effects
No information available.

Carcinogenicity
Contains no ingredient listed as a carcinogen.

Reproductive toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Chronic Toxicity
No known effect based on information supplied.

Target Organ Effects
Respiratory system. Eyes. Skin.

Aspiration Hazard
No information available.

Numerical measures of toxicity  Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
15,200.00 mg/kg

ATEmix (dermal)
20,000.00 mg/kg (ATE)
12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects.

Persistence and Degradability
No information available.

Bioaccumulation
No information available

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging
Dispose of contents/containers in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT

UN-No. UN3082
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class 9
Packing Group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A - EPICHLOROHYDRIN POLYMER), 9, III
Emergency Response Guide Number 171

TDG

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A - EPICHLOROHYDRIN POLYMER), 9, III

MEX

UN-No. UN3082
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class 9
Packing Group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A - EPICHLOROHYDRIN POLYMER), 9, III
15. REGULATORY INFORMATION

International Inventories

TSCA
Complies

DSL
All components are listed either on the DSL or NDSL.

IECSC

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard: No
Chronic Health Hazard: No
Fire Hazard: No
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

International Regulations

Canada
WHMIS Hazard Class
Not determined

16. OTHER INFORMATION

NFPA
Health Hazards 2  Flammability 0  Instability 0

HMIS
Health Hazards 2  Flammability 0  Physical Hazard 0  Physical and Chemical Hazards - Personal Protection X

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date
09-Apr-2019

Revision Date
30-May-2019

Revision Note
No information available

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet