

**PRODUCT NAME:** Epoxy Steel (Mini Pack) ABRO  
**PRODUCT NUMBER/SIZE:** ES-518

**Revision Date:** 04/21/2022

## SECTION 1 Identification of the Substance and of the Company/Undertaking

**MANUFACTURER'S NAME:** ABRO INDUSTRIES, INC.  
**ADDRESS:** 3580 Blackthorn Drive  
South Bend, IN 46628 USA  
**PRODUCT DESCRIPTION:** Adhesives  
**COMPANY PHONE:** 574-232-8289  
**EMERGENCY 24-HR TELEPHONE:** Chemtrec 800-424-9300 / 703-527-3887

## SECTION 2 Hazards Identification

**Classification:**

|   |      |
|---|------|
| Skin corrosion/irritation, Category 2                             | H315 |
| Serious eye damage/eye irritation, Category 2                     | H319 |
| Skin sensitisation, Category 1                                    | H317 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 2 | H411 |

Adverse physicochemical, human health and environmental effects: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.



**Label Pictogram(s):**

**Signal Word:** **WARNING**

**Hazard Phrases:** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

**Precautionary Phrases:** Avoid breathing dust/fume/gas/mist/vapours/spray. If medical advice is needed, have product container or label at hand. Read carefully and follow all instructions. If medical advice is needed, have product container or label at hand.

**Response:** Wash hands, forearms and face thoroughly after handling. Do not touch eyes.

**Storage / Disposal:** Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national, and/or international regulation.

**Other:** Keep out of reach of children.

### SECTION 3 Composition/Information on Ingredients

| Name   | Product identifier  | %       | Classification according to the United Nations GHS   |
|--|---------------------|---------|--|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane        | CAS-No.: 1675-54-3  | 30 – 50 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411 |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | CAS-No.: 68609-97-2 | 1 – 10  | Skin Irrit. 2, H315<br>Skin Sens. 1, H317  |

### SECTION 4 First Aid Measures

**Description of first aid measures:**

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: 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.

First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact: Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact: Eye irritation

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

Treat symptomatically.

### SECTION 5 Fire Fighting Measures

**Extinguishing media:**

Suitable extinguishing media: Water Spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire: Toxic fumes may be released.

**Advice for fire-fighters:**

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6 Accidental Release Measures

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

For non-emergency personnel:

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fumes/gas/mist/vapours/spray.

For emergency responders:

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

**Environmental precautions:**

Avoid release to the environment

**Methods and material for containment and cleaning up:**

For containment: Collect spillage

Methods for cleaning up: Take up liquid spill into absorbent material

Other information: Dispose of materials or solid residues at an authorized site

## SECTION 7 Handling and Storage

**Precautions for  
Safe Handling**

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

**Hygiene measures**

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

**Storage conditions:**

Store in a well-ventilated place. Keep cool

## SECTION 8 Exposure Controls/Personal Protection

**Control Parameters:** No additional information available

Appropriate engineering controls: Ensure good ventilation of the work station

Environmental exposure controls: Avoid release to the environment.

Individual protection measures, such as personal protective equipment (PPE):

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



Exposure limit values for the other components: No additional information available

## SECTION 9 Physical and Chemical Properties

|  |                |
|--|----------------|
| Physical state:                                  | Liquid         |
| Appearance:                                      | Paste          |
| Colour:  | Black          |
| Odour:   | Not available  |
| Odour threshold:                                 | Not available  |
| Melting point:                                   | Not available  |
| Freezing point:                                  | Not available  |
| Boiling point:                                   | Not available  |
| Flammability:                                    | Not applicable |
| Lower explosion limit:                           | Not available  |
| Upper explosion limit:                           | Not available  |
| Flash point:                                     | Not available  |
| Auto-ignition temperature:                       | Not available  |
| Decomposition temperature:                       | Not available  |
| pH:  | Not available  |
| pH solution:                                     | Not available  |
| Viscosity, kinematic (calculated value) (40 °C): | Not available  |
| Partition coefficient n-octanol/water (Log Kow): | Not available  |
| Vapour pressure:                                 | Not available  |
| Vapour pressure at 50 °C:                        | Not available  |
| Density:   | Not available  |
| Relative density:                                | ~ 1.78         |
| Relative vapour density at 20 °C:                | Not available  |
| Solubility:                                      | Not available  |
| Particle size:                                   | Not applicable |

Data relevant with regard to physical hazard classes (supplemental)  
No additional information available

## SECTION 10 Stability and Reactivity

Reactivity: The product is non-reactive under normal conditions of use, storage and transport.  
Chemical stability: Stable under normal conditions.  
Possibility of hazardous reactions: No dangerous reactions known under normal conditions of use.  
Conditions to avoid: None under recommended storage and handling conditions (see section 7)  
Incompatible materials: No additional information available  
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological Information

### Information on toxicological effects:

|                                    |                                      |
|------------------------------------|--------------------------------------|
| Acute toxicity (oral):             | Not classified                       |
| Acute toxicity (dermal):           | Not classified                       |
| Acute toxicity (inhalation):       | Not classified                       |
| Skin corrosion/irritation:         | Causes skin irritation.              |
| Serious eye damage/irritation:     | Causes serious eye irritation.       |
| Respiratory or skin sensitization: | May cause an allergic skin reaction. |
| Germ cell mutagenicity:            | Not classified                       |

|                         |                |
|-------------------------|----------------|
| Carcinogenicity:        | Not classified |
| Reproductive toxicity:  | Not classified |
| STOT-single exposure:   | Not classified |
| STOT-repeated exposure: | Not classified |
| Aspiration hazard:      | Not classified |

**SECTION 12**  
**Ecological Information**



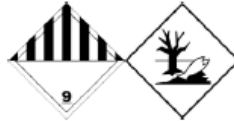
|   |   |
|---|---|
| Ecology – general   | Toxic to aquatic life with long lasting effects |
| Hazardous to the aquatic environment, short-term (acute)                              | Not classified                                  |
| Hazardous to the aquatic environment, long-term (chronic)                             | Toxic to aquatic life with long lasting effects |
| Classification procedure (Hazardous to the aquatic environment, long-term (chronic)): | Calculation method                              |

|                               |                                     |
|-------------------------------|-------------------------------------|
| Persistence and degradability | No additional information available |
| Bioaccumulative potential     | No additional information available |
| Mobility in soil              | No additional information available |
| Ozone:                        | No additional information available |
| Other adverse effects         | No additional information available |

**SECTION 13**  
**Disposal Considerations**

Waste Treatment Methods: Dispose of contents/container in accordance with licensed collector's sorting instructions

**SECTION 14**  
**Transport Information**

| UN RTDG   | IMDG  | IATA  |
|---|---|---|
| <b>14.1. UN number</b>  |   |   |
| Not applicable  | 3082  | 3082  |
| <b>14.2. UN Proper Shipping Name</b>  |   |   |
| Not applicable  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.                                 | Environmentally hazardous substance, liquid, n.o.s.                                   |
| <b>14.3. Transport hazard class(es)</b>   |   |   |
| Not applicable  | 9   | 9   |
|  |  |  |
| <b>14.4. Packing group</b>  |   |   |
| Not applicable  | III   | III   |
| <b>14.5. Environmental hazards</b>  |   |   |
| Dangerous for the environment : Yes   | Dangerous for the environment : Yes<br>Marine pollutant : Yes                       | Dangerous for the environment : Yes   |
| No supplementary information available  |   |   |

UN RTDG  
No data available

IMDG  
Special provisions (IMDG): 274, 335, 969  
Limited quantities (IMDG): 5 L  
Excepted quantities (IMDG): E1  
Packing instructions (IMDG): LP01, P001  
Special packing provisions (IMDG): PP1  
IBC packing instructions (IMDG): IBC03  
Tank instructions (IMDG): T4  
Tank special provisions (IMDG): TP1, TP29  
EmS-No. (Fire): F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE  
EmS-No. (Spillage): S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS  
Stowage category (IMDG): A

IATA  
PCA Excepted quantities (IATA): E1  
PCA Limited quantities (IATA): Y964  
PCA limited quantity max net quantity (IATA): 30kgG  
PCA packing instructions (IATA): 964  
PCA max net quantity (IATA): 450L  
CAO packing instructions (IATA): 964  
CAO max net quantity (IATA): 450L  
Special provisions (IATA): A97, A158, A197  
ERG code (IATA): 9L

## SECTION 15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:  
No additional information available

## SECTION 16 Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance

upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

### ABBREVIATIONS:

|                     |                     |
|---------------------|---------------------|
| NG="NOT GIVEN"      | BT="BETWEEN"        |
| <="LESS THAN"       | >="GREATER THAN"    |
| ND = Not Determined | NA = Not Applicable |

**PRODUCT NAME:** 3 Ton Epoxy Clear (Mini Pack) ABRO  
**PRODUCT NUMBER/SIZE:** EC-610 / Part B

**Revision Date:** 04/21/2022

## SECTION 1 Identification of the Substance and of the Company/Undertaking

**MANUFACTURER'S NAME:** ABRO INDUSTRIES, INC.  
**ADDRESS:** 3580 Blackthorn Drive  
South Bend, IN 46628 USA  
**PRODUCT DESCRIPTION:** Adhesives  
**COMPANY PHONE:** 574-232-8289  
**EMERGENCY 24-HR TELEPHONE:** Chemtrec 800-424-9300 / 703-527-3887

## SECTION 2 Hazards Identification

**Classification:**

|   |      |
|---|------|
| Skin corrosion/irritation, Category 2                             | H315 |
| Serious eye damage/eye irritation, Category 2                     | H319 |
| Skin sensitisation, Category 1                                    | H317 |
| Specific target organ toxicity — Repeated exposure, Category 2    | H373 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 3 | H412 |

Adverse physicochemical, human health and environmental effects:  
May cause damage to organs through prolonged or repeated exposure, Causes skin irritation, May cause an allergic skin reaction, Causes serious eye irritation, Harmful to aquatic life with long lasting effects



**Label Pictogram(s):**

**Signal Word:** **WARNING**

**Hazard Phrases:** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

**Precautionary Phrases:** Avoid breathing dust/fume/gas/mist/vapours/spray. Read carefully and follow all instructions.

**Response:** Wash hands thoroughly after handling. If medical advice is needed, have product container or label at hand.

**Storage / Disposal:** Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Other:** Keep out of reach of children.

Other hazards which do not result in classification:

No additional information available

### SECTION 3 Composition/Information on Ingredients

| Name   | Product identifier  | %       | Classification according to the United Nations GHS   |
|--|---------------------|---------|--|
| POLY[OXY(METHYL-1,2-ETHANEDIYL)], .ALPHA.-HYDRO.-OMEGA.-HYDROXY-, ETHER WITH 2,2-BIS(HYDROXYMETHYL)-1,3-PROPANEDIOL(4:1), 2-HYDROXY-3-MERCAPTOPROPYL ETHER | CAS-No.: 72244-98-5 | 10 – 30 | Skin Sens. 1B, H317<br>Aquatic Chronic 3, H412   |
| PHENOL, STYRENATED   | CAS-No.: 61788-44-1 | 1 – 10  | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411   |
| 2,4,6-tris(dimethylaminomethyl)phenol  | CAS-No.: 90-72-2    | 1 – 10  | Acute Tox. 4 (Oral), H302<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319   |
| BENZYL ALCOHOL   | CAS-No.: 100-51-6   | 1 – 10  | Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Inhalation), H332<br>Eye Irrit. 2, H319   |
| 2-Piperazine-1-yletylamine   | CAS-No.: 140-31-8   | 1 – 10  | Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Repr. 2, H361<br>STOT RE 1, H372<br>Aquatic Chronic 3, H412 |

### SECTION 4 First Aid Measures

First-aid measures general: Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact: Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact: Eye irritation.

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

Treat symptomatically

### SECTION 5 Fire Fighting Measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.



Special hazards arising from the substance or mixture  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions: Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7 Handling and Storage

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8 Exposure Controls/Personal Protection

Control parameters

No additional information available

Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



Environmental exposure controls: No additional information is available

## SECTION 9 Physical and Chemical Properties

|  |                   |
|--|-------------------|
| Physical state:                                  | Liquid            |
| Colour:  | White             |
| Odour:   | Perceptible odour |
| Odour threshold:                                 | Not available     |
| Melting point:                                   | Not applicable    |
| Freezing point:                                  | Not available     |
| Boiling point:                                   | Not available     |
| Flammability:                                    | Not applicable    |
| Lower explosion limit:                           | Not available     |
| Upper explosion limit:                           | Not available     |
| Flash point:                                     | Not available     |
| Auto-ignition temperature:                       | Not applicable    |
| Decomposition temperature:                       | Not available     |
| pH:  | Not applicable    |
| pH solution:                                     | Not available     |
| Viscosity, kinematic (calculated value) (40 °C): | Not available     |
| Partition coefficient n-octanol/water (Log Kow): | Not available     |
| Vapour pressure:                                 | Not available     |
| Vapour pressure at 50 °C:                        | Not available     |
| Density:   | Not available     |
| Relative density:                                | 1.74              |
| Relative vapour density at 20 °C:                | Not applicable    |
| Solubility:                                      | Not available     |
| Particle size:                                   | Not applicable    |

Data relevant with regard to physical hazard classes (supplemental)  
No additional information available

## SECTION 10 Stability and Reactivity

### Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### Chemical stability

Stable under normal conditions.

### Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### Incompatible materials

No additional information available

### Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological Information

Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

PHENOL, STYRENATED (61788-44-1)

LD50 oral rat > 2000 mg/kg

LD50 dermal > 2000 mg/kg

Skin corrosion/irritation: Causes skin irritation.

pH: No data available

Serious eye damage/irritation: Causes serious eye irritation.

pH: No data available

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT-single exposure: Not classified

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.

STOT-repeated exposure: Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

## SECTION 12 Ecological Information

Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

PHENOL, STYRENATED (61788-44-1)

LC50 fish 1 1.77 mg/l

LC50 fish 2 5.6 mg/l

EC50 other aquatic organisms 1 4.6 mg/l

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Ozone: Not classified

No additional information available

**SECTION 13  
Disposal Considerations**

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

**SECTION 14  
Transport Information**

| UN RTDG                                 | IMDG  | IATA                               |
|---|---|------------------------------------|
| <b>14.1. UN number</b>                  |   |                                    |
| Not regulated for transport             |   |                                    |
| <b>14.2. UN Proper Shipping Name</b>    |   |                                    |
| Not applicable                          | Not applicable  | Not applicable                     |
| <b>14.3. Transport hazard class(es)</b> |   |                                    |
| Not applicable                          | Not applicable  | Not applicable                     |
| Not applicable                          | Not applicable  | Not applicable                     |
| <b>14.4. Packing group</b>              |   |                                    |
| Not applicable                          | Not applicable  | Not applicable                     |
| UN RTDG                                 | IMDG  | IATA                               |
| <b>14.5. Environmental hazards</b>      |   |                                    |
| Dangerous for the environment : No      | Dangerous for the environment : No<br>Marine pollutant : No | Dangerous for the environment : No |
| No supplementary information available  |   |                                    |

UN RTDG  
No data available

IMDG  
No data available

IATA  
No data available

**SECTION 15  
Regulatory Information**

No additional information available

**SECTION 16  
Other Information**

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use,

with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance

upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

**ABBREVIATIONS:**

NG="NOT GIVEN"

<="LESS THAN"

ND = Not Determined

BT="BETWEEN"

>="GREATER THAN"

NA = Not Applicable