1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: 5-MINUTE EPOXY GEL RESIN
Product Identifier: EPOXY RESIN
General use: This information applies to the resin component of the two-part kit; handle freshly-mixed resin and hardener as recommended for the hardener. After curing, the product is not hazardous.
Chemical family: Epoxy resin

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbr.</th>
<th>CAS No.</th>
<th>Weight percent</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A diglycidyl ether resin</td>
<td>DGBEPA</td>
<td>25068386</td>
<td>70-90</td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
<tr>
<td>Phenol, polymer with formaldehyde, glycidyl ether</td>
<td>28064144</td>
<td>10-20</td>
<td></td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
</tbody>
</table>

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview
Appearance, form, odor: viscus liquid with little odor.

WARNING! Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary routes of exposure: ❌ Skin contact   ❌ Skin absorption   ❌ Eye contact   ❌ Inhalation   ❌ Ingestion

Symptoms of acute overexposure:

Skin: Moderate irritant. Contact at elevated temperatures can cause thermal burns which may result in permanent damage. May cause skin sensitization (itching, redness, rashes, hives, burning, swelling).

Eyes: Moderate irritant (stinging, burning sensation, tearing, redness, swelling). Contact at elevated temperatures can cause thermal burns which may result in permanent damage or blindness.
Inhalation:
The low vapor pressure of the resin makes inhalation unlikely in normal use. In applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

Ingestion:
Acute oral toxicity is low. May cause gastric distress (nausea, vomiting, diarrhea).

Effects of chronic overexposure:
Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure.

Carcinogenicity -- OSHA regulated: No  ACGIH: No  National Toxicology Program: No
International Agency for Research on Cancer: No
Cancer-suspect constituent(s) : None

Medical conditions which may be aggravated by exposure:
Preexisting eye and skin disorders (e.g. eczema). Development of preexisting skin or lung allergy symptoms may increase.

Other effects:
See section 11.

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:
Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:
Do NOT induce vomiting. Rinse mouth out with water, then sip water to remove taste from mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Water  ☒ Carbon dioxide  ☒ Dry chemical  ☒ Foam  ☒ Alcohol foam

Flash Point (°F): >400  Method: PMCC

Explosive limits in air (percent) --  Lower: n/d  Upper: n/d

Special firefighting procedures:
Material will not burn unless preheated. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water.

Unusual fire and explosion hazards:
Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

Hazardous products of combustion:
When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity.
6. ACCIDENTAL RELEASE MEASURES

Spill control:
Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:
Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:
For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue.

Special procedures:
Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs.

7. HANDLING AND STORAGE

Handling precautions:
Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.
Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles.
Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

Storage:
Store in a cool, dry area away from high temperatures and flames.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls
Ventilation:
Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls:
Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:
Chemical goggles if liquid contact is likely, or Safety glasses with side shields.

Skin protection:
Chemical-resistant gloves (i.e. butyl) and other gear as required to prevent skin contact.

Respiratory protection:
None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>1.1-1.3</td>
</tr>
<tr>
<td>Melting point (°F)</td>
<td>n/d</td>
</tr>
<tr>
<td>Vapor pressure (mmHg)</td>
<td>0.03 mm Hg at 171 °F</td>
</tr>
<tr>
<td>Boiling point (°F)</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate = 1)</td>
<td>&lt;&lt;1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH (5% solution or slurry in water)</td>
<td>neutral</td>
</tr>
<tr>
<td>Percent volatile by volume</td>
<td>0</td>
</tr>
<tr>
<td>Percent solids by weight</td>
<td>100</td>
</tr>
<tr>
<td>VOC (grams/liter)</td>
<td>0</td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>n/d</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid:
- Open flame and extreme heat

Incompatible materials:
- Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

Hazardous products of decomposition:
- Oxides of carbon; aldehydes, acids and other organic substances may be formed during combustion or elevated temperature (>500 deg F) degradation.

Conditions under which hazardous polymerization may occur:
- Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): Not available.

Acute dermal effects: LD50 (rabbit): Not available.

Acute inhalation effects: LC50 (rat): Not available. Exposure: 4 hours.

Eye irritation:
- Not available.

Subchronic effects:
- No data available.

Carcinogenicity, teratogenicity, and mutagenicity:
1) MUTAGENICITY: Liquid resins based on diglycidyl ether of Bisphenol A (DGEBA), have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity assays.
Other chronic effects:
  Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to cause allergic contact dermatitis.

Toxicological information on hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 4hr, (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A diglycidyl ether resin</td>
<td>11.4 g/kg</td>
<td>&gt;20 ml/kg</td>
<td>no deaths</td>
</tr>
<tr>
<td>Phenol, polymer with formaldehyde, glycidyl ether</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 6000 mg/kg</td>
<td>&gt; 1.7 mg/L</td>
</tr>
</tbody>
</table>

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:
  No data available.

Mobility and persistence:
  No data available.

Environmental fate:
  No data available.

13. DISPOSAL CONSIDERATIONS

Waste management recommendations:
  If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations. Incineration is the preferred method of disposal.

Please see also Section 15, Regulatory Information.
14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name: N/A
Hazard class: N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
None

Regulatory status of hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Extremely Hazardous*</th>
<th>Toxic Chemical**</th>
<th>CERCLA RQ (lbs)</th>
<th>TSCA 12B Export Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A diglycidyl ether resin</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>Phenol, polymer with formaldehyde, glycidyl ether</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
</tbody>
</table>

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.
**Substances for which the “Toxic Chemical” column is marked “Yes” are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es): D2B
All components of this product are on the Domestic Substances List.
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Hazardous Materials Identification System (HMIS) ratings:</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
</table>

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.
5-MINUTE EPOXY GEL HARDENER

This product appears in the following stock number(s):

14240  14240G  14265  5348  5368  DA052  DA221  DC048

MANUFACTURER
ITW Devcon
30 Endicott St.
Danvers, MA 01923

EMERGENCY INFORMATION
Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
Tradename: 5-MINUTE EPOXY GEL HARDENER
General use: The following information applies to the hardener component of the two-part kit and to freshly mixed resin and hardener. After curing, 5-Minute Epoxy Gel is not hazardous.
Chemical family: Polymercaptan/polyamine mixture

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbr.</th>
<th>CAS No.</th>
<th>Weight percent</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercaptan amine blend</td>
<td>*</td>
<td></td>
<td>30-50</td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
<tr>
<td>Polymercaptan curing agent</td>
<td>*</td>
<td></td>
<td>50-60</td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
</tbody>
</table>

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview
Appearance, form, odor: Viscous, amber liquid with Mercaptan odor.

WARNING! Eye, skin and respiratory irritant. Potential skin sensitizer. Overexposure may cause delayed lung effects.

Potential health effects
 Primary routes of exposure: ☑ Skin contact ☑ Skin absorption ☑ Eye contact ☑ Inhalation ☐ Ingestion

Symptoms of acute overexposure:
Skin: Can cause severe irritation, especially on prolonged contact. Potential sensitizer.
Eyes: Causes severe irritation with possible permanent damage and even blindness.

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Last revised: 08/12/02
Part No.: 0215

ITW Devcon Material Safety Data Sheet
Page 1

14240 14240G 14265 5348 5368 DA052 DA221 DC048
Inhalation:
   Considered slightly toxic. Can cause irritation of respiratory tract. Over exposure to fumes or vapors may cause delayed lung injury and chemical pneumonia.

Ingestion:
   Slightly toxic. May cause fatigue, muscle weakness, gastrointestinal irritation, nausea, vomiting and diarrhea.

Effects of chronic overexposure:
   Prolonged or severe overexposure to DMP vapor can cause delayed lung damage and chemical pneumonia. Prolonged or repeated contact with this material may cause skin sensitization.

Carcinogenicity -- OSHA regulated: No  ACGIH: No  National Toxicology Program: No
   International Agency for Research on Cancer: No
   Cancer-suspect constituent(s): None

Medical conditions which may be aggravated by exposure:
   May aggravate existing skin, eye, and lung conditions.

4. FIRST AID MEASURES

First aid for eyes:
   Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:
   Remove contaminated clothing and shoes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
   Remove patient to fresh air. Provide oxygen if breathing is difficult. Consult a physician if symptoms persist.

First aid for ingestion:
   Do not induce vomiting. Give large amounts of water followed by milk if available. Consult a physician.

5. FIRE FIGHTING MEASURES

General fire and explosion characteristics:
   Class IIIB.

Extinguishing media:

Flash Point (°F): >200  Method: PMCC

Explosive limits in air (percent) --  Lower: n/d  Upper: n/d

Special firefighting procedures:
   Firefighters should wear self-contained breathing apparatus and protective clothing in confined areas. Cool containers with water spray.

Unusual fire and explosion hazards:
   Toxic smoke and vapors may form during combustion.

Hazardous products of combustion:
   Oxides of carbon, oxides of sulfur, oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Spill control:
   Avoid personal contact. Eliminate ignition sources. Ventilate area.
7. HANDLING AND STORAGE

Handling precautions:
Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against nuisance dust during sanding/grinding of cured product.

Storage:
Store in a cool, dry area away from high temperatures and flames. Keep container tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:
General mechanical ventilation is adequate for occasional use. For prolonged or repeated use, local exhaust is recommended.

Other engineering controls:
Have emergency shower and eye wash stations available.

Personal protective equipment

Eye and face protection:
Safety glasses with sideshields or chemical goggles.

Skin protection:
Chemical-resistant rubber (for example, neoprene, butyl rubber or nitrile) gloves and other protective gear as needed to prevent skin contact.

Respiratory protection:
None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>1.13</td>
</tr>
<tr>
<td>Melting point (°F)</td>
<td>n/d</td>
</tr>
<tr>
<td>Vapor pressure (mmHg)</td>
<td>&lt;&lt;1 at 70 °F</td>
</tr>
<tr>
<td>VOC (grams/liter)</td>
<td>0</td>
</tr>
<tr>
<td>Percent volatile by volume</td>
<td>0</td>
</tr>
<tr>
<td>Percent solids by weight</td>
<td>100</td>
</tr>
<tr>
<td>Boiling point (°F)</td>
<td>n/d</td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>n/d</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate = 1)</td>
<td>n/d</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH (5% solution or slurry in water)</td>
<td>9.5</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid:
- Open flame and extreme heat.

Incompatible materials:
- Strong oxidizing agents.

Hazardous products of decomposition:
- Oxides of carbon, oxides of sulfur, oxides of nitrogen.

Conditions under which hazardous polymerization may occur:
- Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): Not available.
Acute dermal effects: LD50 (rabbit): Not available.
- Rabbit: Severe irritant;
Acute inhalation effects: LC50 (rat): Not available. Exposure: 0 hours.

Eye irritation:
- Rabbit: Severe irritant.

Subchronic effects:
- No data.

Carcinogenicity, teratogenicity, and mutagenicity:
- No data.

Other chronic effects:
- No data.
12 ECOLOGICAL INFORMATION

Ecotoxicity:
No data.

Mobility and persistence:
No data.

Environmental fate:
No data.

13. DISPOSAL CONSIDERATIONS

Waste management recommendations:
If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

Please see also Section 15, Regulatory Information.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 4hr, (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercaptan amine blend</td>
<td>n/d</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>Polymercaptan curing agent</td>
<td>n/d</td>
<td>n/d</td>
<td>n/d</td>
</tr>
</tbody>
</table>

'N/A' = 'not determined'

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
None
For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material:

- Immediate health hazard -- Delayed health hazard -

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

### Regulatory status of hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Extremely Hazardous*</th>
<th>Toxic Chemical**</th>
<th>CERCLA RQ (lbs)</th>
<th>TSCA 12B Export Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercaptan amine blend</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>Polymercaptan curing agent</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
</tbody>
</table>

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

### Canadian regulations

**WHMIS hazard class(es):** D2B

All components of this product are on the Domestic Substances List.

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Hazardous Materials Identification System (HMIS) ratings:</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3*</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.