1 Identification of the substance/mixture and the company/undertaking

1.1 Product identifier
Trade name: A-10012 Resin

1.2 Application of the substance / the mixture: Composite epoxy

1.3 Details of the supplier of the Safety Data Sheet
Manufacturer/Supplier:
Copps Industries, Inc.
10500 N Commerce Street
Mequon, WI 53092
Phone: (262) 238-1700

1.4 Emergency telephone number:
ChemTel Inc.
(800) 255-3924, +1 (813) 248-0585

2 Hazards identification

2.1 GHS Classification of the substance or mixture
Acute aquatic toxicity; Category 3
Skin Irritant 2; H315: Causes skin irritation.
Eye Irritant 2; H319: Causes serious eye irritation.
Skin Sensitizer 1; H317: May cause and allergic skin reaction.
Harmful to aquatic life.

2.2 GHS Label elements
Hazard pictograms/symbols

Signal word: Warning
Hazard statements:
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H317: May cause and allergic skin reaction.
H402: Harmful to aquatic life.

Precautionary statements:
P280: wear protective gloves / eye protection.
P273: Avoid release to the environment.
P264: Wash thoroughly after handling.
P261: Avoid breathing mist/vapours/spray.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.

Additional information: Contains epoxy constituents. May produce an allergic reaction.

HMIS Rating:
Health: 2
Flammability: 1
Physical Hazard: 0
3 Composition/information on ingredients

3.2 Mixture
Description: Substance listed below with nonhazardous additions possible.

<table>
<thead>
<tr>
<th>CAS: 20089-06-6</th>
<th>Reaction product: bisphenol - A- (epichlorohydrin) epoxy resin (number average molecular weight&lt;700)</th>
<th>70-90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>Cycloaliphatic epoxy resin</td>
<td>15-30%</td>
</tr>
</tbody>
</table>

In conformity with 29CFR 1910.1200(i) the specific chemical identity may be withheld as Trade Secret, while all health/safety properties and effects are included in the SDS.

4 First aid measures

General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident. Take affected persons out into the fresh air.

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately rinse with water. If skin irritation continues, consult a doctor.
After eye contact: Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed: Allergic reactions, Nausea, Coughing, Gastric or intestinal disorders, Irritant to skin and mucous membranes, Irritant to eyes.

4.3 Indication of any immediate medical attention and special treatment needed: Contains reaction product: Reaction product: Bisphenol F- (epichlorohydrin); epoxy resin. May produce an allergic reaction. If necessary oxygen respiration treatment. Later observation for pneumonia and pulmonary edema. Medical supervision for at least 48 hours.

5 Firefighting measures

5.1 Extinguishing media
For safety reasons unsuitable extinguishing agents: Water with full jet, Water spray

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for the firefighters
Additional information: Cool endangered receptacles with water fog or haze. Eliminate all ignition sources if safe to do so.

6 Accidental release measures

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system. Prevent from spreading (e.g. by damming–in or oil barriers).
6.3 Methods and material for containment and cleaning up: Absorb liquid components with liquid-binding material. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling and storage

7.1 Precautions for safe handling: Use only in well-ventilated areas. Store in cool, dry place in tightly closed receptacles (60-80°F recommended).
7.2 Conditions for safe storage, including any incompatibilities: Use only receptacles specifically permitted for this substance/product. Avoid storage near extreme heat, ignition sources or open flame.
Further Information about storage conditions: Keep container tightly sealed. Store in an area with adequate ventilation.

8 Exposure controls/personal protection
8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
DNELs: No further relevant information available.
PNECs: No further relevant information available.
Additional information: The lists valid during the making were used as basis.
8.2 Engineering controls
Provide readily accessible eye wash stations and safety showers. Provide ventilation adequate to ensure concentrations are minimized.
8.3 Personal protective equipment
General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.
Respiratory protection: Not required under normal conditions of use. Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use respiratory protection when grinding or cutting material.
Hand protection: Protective, impervious gloves. (Neoprene, PVC, Nitrile rubber) The glove material has to be impermeable and resistant to the product / the substance / the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Eye protection: Safety glasses with side shields. Contact lenses should not be worn.
Skin and Body protection: Protective work clothing. Where potential exposure warrants, rubber or plastic boots and chemically resistant protective suit.

9.1 Information on basic physical and chemical properties

9.1.1 General information
Appearance
Form: Liquid
Colour: Black
Odour: Sweet
Odour threshold: No data available
pH: No data available
Melting point/range: No data available
Boiling point/range: >302 °F / >150 °C
Flash point: >200 °F / >93°C
Evaporation rate: No data available
Flammability (solid, gaseous): Not applicable
Upper/lower flammability or explosive limit: Not applicable
Vapor pressure: No data available
Vapor density: No data available
Relative Density at 20°C: 1.16 g/cm³
Solubility in / Miscibility with Water: Not miscible or difficult to mix.
Partition coefficient (n-octanol/water): No data available
Auto/Self-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 3,000 – 5,000 cps

10 Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
10.4 Conditions to avoid: Avoid contact with strong oxidizing agents, excessive heat or flames.
10.5 Incompatible materials: Strong acids, bases and oxidizing agents.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide.
11 Toxicological information

11.1 Information on likely routes of exposure:
- Inhalation: May cause respiratory irritation
- Ingestion: No data
- Skin contact: May cause skin irritation
- Eye contact: May cause eye irritation

11.2 Symptoms related to physical, chemical and toxicological characteristics: No available data

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure: (Data for primary component, Reaction product: Bisphenol F- (epichlorohydrin); epoxy resin
- Acute toxic:
  - Oral: LD50 > 2,000 mg/kg (rat)
  - Dermal: LD50 > 2,000 mg/kg (rat)
  - Inhalation: No data

11.4 Numerical measures of toxicity: No data available for mixture.

12 Ecological information

12.1 Toxicity
- Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No data available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

12.5 Results of PBT and vPvB assessment:
- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available

13 Disposal considerations

13.1 Waste treatment methods
- Waste from residue/unused product: This product should not be allowed to enter drains, water courses or the soil. Dispose of this material in a safe manner and in accordance with federal, state and local regulations.
- Contaminated packaging: Disposal must be made in accordance with official federal, state and local regulations.

14 Transport information

DOT
- UN number: Not Regulated

IATA
- UN number: Not Regulated

IMDG
- UN number: Not Regulated

15 Regulatory Information

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

United States (USA)

SARA
- Section 355 (extremely hazardous substances):
  None of the ingredients is listed.
- Section 313 (specific toxic chemical listings):
  Component(s) above 'de minimus' level: None
- TSCA (Toxic Substances Control Act):
  All the ingredients are listed.
Proposition 65 (California):

| Chemicals known to cause cancer: None |

Canada

| Canadian Domestic Substances List (DSL): |
| All ingredients are listed. |

| Canadian Ingredient Disclosure list (limit 0.1%) |
| None of the ingredients is listed. |

| Canadian Ingredient Disclosure list (limit 1%) |
| None of the ingredients is listed. |

15.2 Chemical Safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviation and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienist.
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substance
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
1 Identification of the substance/mixture and the company/undertaking

1.1 Product identifier
   Trade name: B-10012 Hardener

1.2 Application of the substance / the mixture: Composite epoxy

1.3 Details of the supplier of the Safety Data Sheet
   Manufacturer/Supplier:
   Copps Industries, Inc.
   10500 N Commerce Street
   Mequon, WI  53092
   Phone: (262) 238-1700

1.4 Emergency telephone number:
   ChemTel Inc.
   (800) 255-3924, +1 (813) 248-0585

2 Hazards identification

2.1 GHS Classification of the substance or mixture
   - Acute Toxicity – Oral; Category 4
   - Acute Toxicity – Inhalation; Category 3
   - Skin Irritation; Category 2
   - Serious Eye Damage; Category 1
   - Skin Sensitization; Category 1
   - Respiratory Sensitization; Category 1

2.2 GHS Label elements
   - Hazard pictograms/symbols
   - Signal word: Danger

Hazard statements:
   H302: Harmful if swallowed.
   H331: Toxic if inhaled.
   H317: May cause an allergic skin reaction.
   H315: Causes skin irritation.
   H318: Causes serious eye damage.
   H334: May cause allergy or asthma symptoms if inhaled.

Precautionary statements:
   P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
   P264: Wash hands thoroughly after handling.
   P270: Do not eat, drink or smoke when using this product.
   P271: Use only outdoors or in a well-ventilated area.
   P272: Contaminated work clothing should not be allowed out of the workplace.
   P280: Wear protective gloves/protective clothing/eye protection/face protection.
   P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
   P304+P340: 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. Continue rinsing.
   P284: (In case of inadequate ventilation) wear respiratory protection.
   P363: Wash contaminated clothing before reuse.

Additional information: May cause sensitization by skin contact.
3 Composition/information on ingredients

3.2 Mixture
Description: Mixture of substances listed below with potential nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: 25134-21-8</th>
<th>1,2,3,6-tetrahydromethyl-3,6-methanophthalic anhydride</th>
<th>&gt;70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>Anhydride blend</td>
<td>&lt;30%</td>
</tr>
</tbody>
</table>

In conformity with 29CFR 1910.1200(i) the specific chemical identity may be withheld as Trade Secret, while all health/safety properties and effects are included in the SDS.

4 First aid measures

4.1 Description of first aid measures
General information: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately.

After eye contact: Rinse immediately with plenty of water for at least 15 minutes. If symptoms persist, consult a doctor.

After ingestion: Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side. Do not Induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed: Repeated and/or prolonged exposures to low concentrations of vapors or aerosols may cause: sore throat, asthma, eye disease, kidney disorders, liver disorders, skin disorders and allergies.

4.3 Indication of any immediate medical attention and special treatment needed: See section 4.1

5 Firefighting measures

5.1 Extinguishing media

5.2 Specific hazards arising from the substance or mixture: Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

5.3 Advice for the firefighters

Additional information: Cool endangered receptacles with water fog or haze. Eliminate all ignition sources if safe to do so.

6 Accidental release measures


6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water. Inform respective authorities in case of seepage into water course or sewage system. Prevent from spreading (e.g. by damming–in or oil barriers).

6.3 Methods and material for containment and cleaning up: Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling and storage

7.1 Precautions for safe handling: Use only in well-ventilated areas. Store in cool, dry place in tightly closed receptacles (60-80°F recommended).

7.2 Conditions for safe storage, including any incompatibilities: Use only receptacles specifically permitted for this substance/product. Avoid storage near extreme heat, ignition sources or open flame.

Further Information about storage conditions: Keep container tightly sealed. Store in an area with adequate ventilation.
8.1 Control parameters

**DERIVED NO EFFECT LEVEL (DNEL) / DERIVED MINIMUM EFFECT LEVEL (DMEL):**

- **Workers:**
  - Oral: not pertinent

- **Long-term systemic effects:**
  - Dermal: DNEL 0.07 mg/kg bw/day Assessment factor 300
  - Inhalation: DNEL 0.23 mg/m³ Assessment factor 75

- **General population:** Not available

**PREDICTED NO EFFECT CONCENTRATION (PNEC):**

- **Environment:**
  - **Water:**
    - PNEC water (freshwater): 0.4 mg/L Assessment factor 50
    - PNEC water (marine water): 0.04 mg/L Assessment factor 500
    - PNEC water (intermittent releases): 1 mg/L Assessment factor 100
  - **Soil:**
    - PNEC soil: 0.694 mg/kg soil dw
  - **Sediment:**
    - PNEC sediment (freshwater): 4.64 mg/kg sediment dw
    - PNEC sediment (marine water): 0.464 mg/kg sediment dw
  - **STP:**
    - PNEC STP: 5.91 mg/L Assessment factor 10

**Occupational Exposure limit values:** Not available

8.2 Engineering controls

- Provide readily accessible eye wash stations and safety showers.
- Provide ventilation adequate to ensure concentrations are minimized.

8.3 Personal protective equipment

**General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

**Respiratory protection:**

- Not required under normal conditions of use. Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use respiratory protection when grinding or cutting material.

**Hand protection:**

- Protective, impervious gloves. (Neoprene, Butyl-rubber, Nitrile rubber) The glove material has to be impermeable and resistant to the product / the substance / the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Eye protection:**

- Face shield with safety glasses or goggles underneath. Contact lenses should not be worn.

**Skin and Body protection:**

- Protective work clothing. Where potential exposure warrants, rubber or plastic boots and chemically resistant protective suit.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

**General Information**

**Appearance**

- **Form:** Liquid
- **Colour:** Pale yellow to amber
- **Odour:** Anhydride
- **Odour threshold:** No data available
- **pH:** No data available
- **Melting point/range:** No data available
- **Boiling point/range:** >350 °F / >176 °C
- **Flash point:** >200 °F / >93 °C
- **Evaporation rate:** No data available
- **Flammability (solid, gaseous):** Not applicable
- **Upper/lower flammability or explosive limit:** Not applicable
Vapor pressure: No data available
Vapor density: No data available
Relative Density at 20°C: 1.23 g/cm³
Solubility in / Miscibility with Water: Not applicable
Partition coefficient (n-octanol/water): No data available
Auto/Self-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 150 - 400 cps

10 Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions: None known in normal conditions.
10.4 Conditions to avoid: Avoid contact with strong oxidizing agents, excessive heat or flames.
10.5 Incompatible materials: Strong acids, bases and oxidizing agents.
10.6 Hazardous decomposition products: Unknown

11 Toxicological information

11.1 Information on likely routes of exposure:
Skin contact: Harmful in contact with skin. Causes skin burns.
Eye contact: Causes eye burns.
Ingestion: Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Inhalation: Can cause severe eye, skin and respiratory tract burns.
11.2 Symptoms related to physical, chemical and toxicological characteristics: No data available.
11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. May cause allergic skin reaction. This product may cause adverse reproductive effects. Eye disease, Skin disorders and Allergies.
11.4 Numerical measures of toxicity:
Acute toxicity:
| Oral LD50 | 1300 mg/kg (rat) |
| Dermal LD50 | 4920 mg/kg (rat) |
| Inhalation LC50 (4h) | <1mg/L (rat) |

12 Ecological information

12.1 Aquatic toxicity: Data not available on the product itself.
12.2 Persistence and degradability: Data not available on the product itself.
12.3 Bioaccumulative potential: Data not available on the product itself.
12.4 Mobility in soil: No data available.
12.5 Other adverse effects: No further relevant information available.

13 Disposal considerations

13.1 Waste treatment methods
Waste from residue/unused product: This product should not be allowed to enter drains, water courses or the soil. Dispose of this material in a safe manner and in accordance with federal, state and local regulations.
Contaminated packaging: Disposal must be made in accordance with official federal, state and local regulations.
14 Transport information

DOT
UN number: UN2810
Proper Shipping Name: Toxic Liquid, Organic, N.O.S. (1,2,3,6-tetrahydromethyl-3,6-methanophtalic anhydride)
Hazard Class: 6.1
Packing Group: III
Labels(s): 6.1
Marine Pollutant: No

IATA
UN number: UN2810
Proper Shipping Name: Toxic Liquid, Organic, N.O.S. (1,2,3,6-tetrahydromethyl-3,6-methanophtalic anhydride)
Hazard Class: 6.1
Packing Group: III
Labels(s): 6.1
Marine Pollutant: No

IMDG
UN number: UN2810
Proper Shipping Name: Toxic Liquid, Organic, N.O.S. (1,2,3,6-tetrahydromethyl-3,6-methanophtalic anhydride)
Hazard Class: 6.1
Packing Group: III
Labels(s): 6.1
Marine Pollutant: No

15 Regulatory Information

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

Toxic Substance Control Act (TSCA) 12(b) Component(s): None.

SARA
Section 355 (extremely hazardous substances):
None of the ingredients is listed.
Section 313 (Specific toxic chemical listings):
Component(s) above ‘de minimus’ level: None
TSCA (Toxic Substances Control Act):
All the ingredients are listed.

Proposition 65 (California):
Chemicals known to cause cancer: None

15.2 Chemical Safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviation and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)