# **MATERIAL SAFETY DATA SHEET**

| SECTION I        |   |  |
|------------------|---|--|
| <u> </u>         | DATE OF PREPARATION                               |  |
| PRODUCT NAME:    | June 2011   |  |
| PRODUCT CLASS:   | Epoxy Resin, Part A                               |  |
| PRODUCT TYPE:    | 4,4'-Isopropylidenediphenol Epichlorohydrin Resin |  |
| D.O.T. CATEGORY: | Chemical, NOIBN                                   |  |
| ADDRESS:         | International Coatings                            |  |
|                  | Div. of Milamar Coatings, L.L.C.                  |  |
|                  | 311 N.W. 122 <sup>nd</sup> St. Ste. 100           |  |
|                  | Oklahoma City, OK 73114                           |  |
| TELEPHONE:       | 405-755-8448                                      |  |
| EMERGENCY:       | CHEM TEL 800-255-3924                             |  |

## **SECTION II - HAZARDOUS INGREDIENTS**

NFPA HAZARD RATINGS: Health 1, Flammability 1, Reactivity 0

Listed below are the hazardous component(s) as defined in 49 CFR 172 and 29 CFR 1910 which are present in this product and all components which appear on the hazardous substance list of any state:

NONE

Reaction product of epichlorohydrin and bisphenol A - CAS# 025085-99-8 >75%

| S      | ECT | ION | 111 - | PH) | <b>/S</b> I | CAI | L D | ATA |
|--------|-----|-----|-------|-----|-------------|-----|-----|-----|
| $\sim$ |     |     |       |     |             |     |     |     |

| PHYSICAL STATE:    | Moderate viscosity, amber liquid. |
|--------------------|-----------------------------------|
| SPECIFIC GRAVITY:  | 1-14 at 77°F.                     |
| DENSITY:           | 9.5 lbs/gal                       |
| SOLUBILITY:        | Negligible                        |
| pH:                | NA                                |
| PERCENT VOLATILES: | 0 at 70°F                         |

## **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: 420°F (Pensky Martens Closed Cup)

FLAMMABILITY LIMITS: LFL: NA UFL: NA

**EXTINGUISHING DATA:** Foam, Dry Chemical, Carbon Dioxide (CO<sub>2</sub>)

**FIRE FIGHTING INSTRUCTIONS:** Use water spray to cool fire-exposed containers until fire is out. Wear positive-pressure, self-contained breathing apparatus and full protective equipment, as decomposition products are hazardous

HAZARDOUS DECOMPOSITION PRODUCTS: Mainly phenolics, CO and H2O

## **SECTION V - HEALTH HAZARD DATA**

| EFFECTS OF OVER | EXPOSURE:   |
|-----------------|---|
| EYES:           | May cause temporary eye irritation. Corneal injury unlikely   |
| SKIN:           | Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation and has caused skin reactions in humans. A single prolonged exposure unlikely to result in material being absorbed into skin. |
| INGESTION:      | Single dose oral toxicity extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling.  |
| INHALATION:     | Vapors are unlikely due to physical properties  |
| EMERGENCY AND   | FIRST AID PROCEDURES:   |
| EYES:           | Immediately flush with large amounts of water for at least 15 minutes lifting upper and lower lids occasionally. <b>GET IMMEDIATE MEDICAL ATTENTION</b> . If a physician is not immediately available, continue flushing with water.          |
| SKIN:           | Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. <b>GET MEDICAL ATTENTION</b> if swelling or reddening occurs.   |
| INHALATION:     | Remove to fresh air if effects occur and administer oxygen if necessary. GET MEDICAL ATTENTION if effects persist.  |
| INGESTION:      | <b><u>DO NOT INDUCE VOMITING</u></b> . Vomiting will cause further damage to the throat. Dilute by giving water or milk to drink if victim is conscious. <b>GET MEDICAL ATTENTION IMMEDIATELY.</b>  |

## **SECTION VI - REACTIVITY DATA**

**STABILITY:** Stable under normal storage conditions. **INCOMPATIBILITY:** Bases, acids, amines, oxidizing agents **HAZARDOUS DECOMPOSITION PRODUCTS:** Refer to Section IV

**CONDITIONS TO AVOID:** Excess exposure at temperatures above 60C over long periods degrades material

## SECTION VII - SPILL OR LEAK PROCEDURE

**IF MATERIAL IS SPILLED:** Avoid contact with material. Persons not wearing appropriate protective equipment (see below) should be excluded from the area of spill until clean-up is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on clay, diatomaceous earth or other absorbent and shoveled into disposal containers.

**WASTE DISPOSAL METHOD:** This product if disposed as shipped is not a hazardous waste as specified under 40 CFR 261. Controlled incineration or buried landfill disposal should be in accordance with all Federal, State & Local regulations.

## **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION:** NIOSH approved respiratory protection required in the absence of proper environmental control. For emergencies, a self-contained breathing apparatus, or a full-face respirator is recommended. **VENTILATION:** Local, except if applied in enclosed space, in which case proper respiratory equipment (see above) must be worn.

HAND PROTECTION: Impervious gloves, neoprene or rubber.

**EYE PROTECTION:** Splash proof goggles or safety spectacles with side shields.

**OTHER PROTECTIVE EQUIPMENT:** Clean, body-covering clothing. Further safety equipment (apron, footwear, etc.) should be used as necessary to prevent contact with material.

## **SECTION IX - SPECIAL PRECAUTIONS**

- 1. Prevent all skin and eye contact.
- 2. Re-seal part used containers.

3. Ensure that **all** containers are properly labeled to prevent accidental ingestion.

- 4. Wash with soap and water before eating, drinking, smoking or using toilet facilities.
- 5. Observe conditions of good industrial hygiene and safe working practice.

SECTION X – REGULATORY INFORMATION

WHMSIS INFORMATION: D2B – SKIN SENSITIZER

THE INFORMATION HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION INTERNATIONAL COATINGS CONSIDERS TO BE ACCURATE. NO WARRANTY EXPRESSED OR IMPLIED IS INTENDED.

## **MATERIAL SAFETY DATA SHEET**

## **SECTION I**

DATE OF PREPARATION June 2011

| PRODUCT NAME:    | ICO Guard Cold Cure   |
|------------------|---|
| PRODUCT CLASS:   | Epoxy Resin Hardener, Part B  |
| PRODUCT TYPE:    | Modified Aliphatic Amine  |
| D.O.T. CATEGORY: | UN 3267 Corrosive liquid, Basic, Organic N.O.S. (Aminoethylpiperazine, 4-<br>Nonylphenol) 8 PGIII |
|                  |   |
| ADDRESS:         | International Coatings  |
|                  | Div. of Milamar Coatings, L.L.C.  |
|                  | 311 N.W. 122 <sup>nd</sup> St. Ste. 100   |
|                  | Oklahoma City, OK 73114   |
| TELEPHONE:       | 405-755-8448  |
| EMERGENCY:       | CHEM TEL 800-255-3924   |
|                  |   |

## **SECTION II - HAZARDOUS INGREDIENTS**

NFPA HAZARD RATING: Health 3, Flammability 2, Reactivity 1,

Listed below are the hazardous component(s) as defined in 49 CFR 172 and 29 CFR 1910 which are present in this product and all components which appear on the hazardous substance list of any state.

| Ingredient               | CAS #      | Exposure Limits |  |
|--------------------------|------------|-----------------|--|
| 4-Nonyl Phenol Branched  | 84852-15-3 | NE              |  |
| N- Aminoethyl Piperazine | 140-31-8   | NE              |  |
| Bisphenol A              | 80-05-7    | NE              |  |

| SECTION III - PHYSICAL DATA |
|-----------------------------|
|-----------------------------|

| APPERANCE:         | Low viscosity, amber color |
|--------------------|----------------------------|
| ODOR:              | Slight ammoniated          |
| BOILING POINT:     | N/A                        |
| MELTING POINT:     | N/D                        |
| SPECIFIC GRAVITY:  | 1.0                        |
| VAPOR DENSITY:     | N/D                        |
| PERCENT VOLATILES: | 0 at 70° F                 |
| WATER MISCIBILITY: | Moderate 1-10%             |

### **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

171°F (Setaflash Closed Cup).

| FLASH  | POINT:       |          |        |
|--------|--------------|----------|--------|
| LOWER  | FLAMM        | ABLE LIM | IT:    |
| UPPER  | <b>FLAMM</b> | ABLE LIM | IT:    |
| EXTING | UISHING      | i MEDIA: |        |
| UNUSU  | AL FIRE      | EXPLOSIC | N HAZA |
|        |              |          |        |

N/D N/D Foam, Dry Chemical, Carbon Dioxide (CO2), Water

UNUSUAL FIRE EXPLOSION HAZARDS (Conditions to avoid): May produce hazardous fumes or hazardous decomposition products.

HAZARDOUS DECOMPOSITION PRODUCTS: CO,CO2, NOx

**SPECIAL FIRE FIGHTING PROCEDURES:** When fire fighting, wear full protective equipment including self contained breathing apparatus. Use water only as a blanket

### **SECTION V - HEALTH HAZARD DATA**

| Test Type       | Result | Туре          | Animal Species | Hazard Rank |
|-----------------|--------|---------------|----------------|-------------|
| Dermal Toxicity | POS    |               | Rabbit         | Moderate    |
| Eye Irritation  | <72    | 0-110 Range   | Rabbit         | Serious     |
| Oral Toxicity   | >.5    | G/KG EST LD50 | Rat            | Moderate    |
| Skin Irritation | 4.96   | 0-8 Range     | Rabbit         | Severe      |

#### FIRST AID RECOMMENDATIONS:

SKIN AND EYE CONTACT: Danger! Causes severe skin and eye irritation or burns. Do not get product in eyes, on skin or clothing. Wear recommended protective equipment. Wash thoroughly after

|                 | handling.  |
|-----------------|--|
| FIRST AID:      | Immediately flush with water for at least 15 minutes while removing contaminated clothing. <b>Call a physician</b> .   |
| INHALATION:     | <b>Caution!</b> May be harmful if inhaled. Do not inhale product. Keep container closed. Use only with adequate ventilation.   |
| FIRST AID:      | Move to fresh air. If breathing is difficult, give oxygen. CALL A PHYSICIAN.   |
| ORAL INGESTION: | CAUTION: May be harmful if swallowed. Wash thoroughly after handling.  |
| First Aid:      | If swallowed, immediately drink a large quantity of milk or water and call a physician.  |
| OTHER:          | No carcinogenicity, mutagenicity or teratogenicity effects are known. No effects of chronic exposure or target organ effects are known. No exposure limits have been established for this product as formulated. |

## **SECTION VI - REACTIVITY DATA**

INCOMPATIBLE MATERIALS (Materials to avoid): Oxidizers

Product is stable under normal conditions.

Hazardous polymerization will not occur.

### **SECTION VII - SPILL OR LEAK PROCEDURE**

**STEPS TO TAKE IF SPILLED:** Using recommended protective equipment, add dry material to absorb spill (if large spill, first dike to contain). Pick up and containerize. Flush area with dilute (5%) acetic acid. Collect rinsate for sewer or disposal.

**WASTE DISPOSAL:** This product, if disposed as shipped, is classified as corrosive and as such must be disposed of according to Federal, State and local regulations.

| SECTION VIII - SPECIAL PROTECTIVE EQUIPMENT   |  |  |  |  |  |
|---|--|--|--|--|--|
| VENTILATION REQUIREMENTS:   | VENTILATION REQUIREMENTS: Local                                      |  |  |  |  |
| PERSONAL PROTECTIVE EQUIPMENT R   | PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED FOR NORMAL USE CONDITIONS: |  |  |  |  |
| EYE PROTECTION:   | EYE PROTECTION: Chemical goggles                                     |  |  |  |  |
| SKIN PROTECTION:  | Rubber or plastic gloves   |  |  |  |  |
| RESPIRATORY PROTECTION:   | Respirator with organic vapor cartridge (N/A with local exhaust).    |  |  |  |  |
| SECTION IX – TRANSPORTATION   |  |  |  |  |  |
| DOT PROPER SHIPPING NAME:<br>Corrosive liquid, Basic, Organic N.O.S. (Aminoethylpiperazine,<br>4-Nonylphenol) |  |  |  |  |  |
| DOT HAZARD CLASSIFICATION OR DIVISION: 8  |  |  |  |  |  |
| IDENTIFICATION NUMBER: UN 3267  |  |  |  |  |  |
| PACKAGING GROUP: III  |  |  |  |  |  |
| LABELS REQUIRED:  | Corrosive  |  |  |  |  |
| SECTION X – REGULATORY INFORMATION  |  |  |  |  |  |

WHMSIS Classification - Class E - corrosive

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