

MATERIAL SAFETY DATA SHEET

SECTION I

DATE OF PREPARATION

June 2011

PRODUCT NAME: **ICO Flexi-Coat**
PRODUCT CLASS: Epoxy Resin Part A
PRODUCT TYPE: 4,4-Isopropylidenediphenol Epichlorohydrin Resin
D.O.T. CATEGORY: Chemical, NOIBN
ADDRESS: **International Coatings**
2925 Lucy Lane
Franklin Park, IL 60131
TELEPHONE: 847-451-0279
EMERGENCY: 800-535-5053

SECTION II - HAZARDOUS INGREDIENTS

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

SECTION III - PHYSICAL DATA

PHYSICAL STATE: Moderate viscosity, amber liquid
SPECIFIC GRAVITY: 1.16 at 77 °F
DENSITY: 9.69 lbs/gal
SOLUBILITY: Negligible
ODOR: Faint epoxy
PERCENT VOLATILES: 0 at 70 °F

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 485 °F (Pensky Martens Closed Cup)
EXTINGUISHING DATA: Foam, Dry chemical, Carbon Dioxide (CO₂)
FLAMMABILITY LIMITS: LFL: NA UFL : NA
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.
HAZARDOUS DECOMPOSITION PRODUCTS: Mainly phenolics, CO and H₂O; hence, thermal decomposition products should be treated as potentially hazardous substances.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

EYE: May cause temporary eye irritation. Corneal injury unlikely.
SKIN: Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation. Has caused allergic skin reactions in humans. A single prolonged exposure is not likely to result in material being absorbed into the skin.
INGESTION: Single dose oral toxicity is extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

SYSTEMIC(OTHER TARGET ORGAN EFFECTS):

Except for skin sensitization, repeated exposures not anticipated to cause any significant side effects.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with water for at least 15 minutes, holding eyelids open. **GET MEDICAL ATTENTION.**
SKIN: Wash thoroughly with water while removing contaminated clothing and shoes. Wash clothing before re-use and discard contaminated leather articles. **GET MEDICAL ATTENTION** if effects such as swelling or reddening occur.
INHALATION: Remove to fresh air if effects occur and administer oxygen if necessary. **GET MEDICAL ATTENTION** if effects persist.
INGESTION: **GET MEDICAL ATTENTION IMMEDIATELY.** Induce vomiting immediately by depressing back of tongue with a finger or drinking one or more glasses of salt water.

SECTION VI - REACTIVITY DATA

STABILITY: Stable under normal storage conditions.
INCOMPATIBILITY: Avoid bringing into contact with strong oxidizing agents, and strong Lewis or Mineral acids
HAZARDOUS DECOMPOSITION PRODUCTS: See Section IV.

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 on 40CFR261. Controlled incineration or buried landfill disposal should be in accordance with all Federal, State, and Local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: No respiratory protection should be needed
VENTILATION: Local
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.
EXPOSURE GUIDELINES: None established

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

WHMIS 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 Flexi Coat**
PRODUCT CLASS: Epoxy Resin Hardener, Part B
PRODUCT TYPE: Modified polyamine
D.O.T. CATEGORY: UN 2735 Amines, Liquids Corrosive NOS (1,3-Cyclohexanedimethanamine, xylenediamine) 8 PG III

ADDRESS: **International Coatings**
2925 Lucy Lane
Franklin Park, IL 60131

TELEPHONE: 847-451-0279
EMERGENCY: 800-535-5053

SECTION II - HAZARDOUS INGREDIENTS

NFPA Hazard Rating: Health 3, 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:

<u>Ingredient</u>	<u>CAS#</u>	<u>Maximum Content</u>	<u>Exposure Limits</u>
Modified Polyamines	Proprietary	55%	None assigned
Nonylphenol	84852-15-3	15%	None assigned
Aminoethylpiperazine	140-31-8	10%	None assigned
Benzyl Alcohol	100-51-6	25%	None assigned

SECTION III - PHYSICAL DATA

PHYSICAL STATE: Low Viscosity, amber color
SPECIFIC GRAVITY: 1.0 at 77°F
DENSITY: 8.5lbs/gal at 77 ° F
ODOR: Ammonia like
VAPOR PRESSURE: Less than 1 mm Hg @ 68°F
PERCENT VOLATILES: 0 at 70°F
BOILING POINT: >400 ° F
WATER MISCIBILITY: Complete
pH: 10-11

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >200°F (Setaflash Closed Cup)
LFL: No data
UFL: No data
EXTINGUISHING MEDIA: Water fog, Alcohol Foam, CO₂, Dry Chemical
UNUSUAL FIRE OR EXPLOSION HAZARDS: None known
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂, NO_x, Nitric Acid fumes
SPECIAL FIRE FIGHTING PROCEDURES: Use a positive pressure, self-contained breathing apparatus. Wear full protection coating.
Note: Will burn under right conditions of heat and oxygen supply.

SECTION V - HEALTH HAZARD DATA

Permissible Exposure Level: None Established
EFFECTS OF OVER EXPOSURE:

INHALATION May cause nasal irritation, central nervous system depression or lung injury.
EYES This product can cause chemical burns to eyes. Eye damage may be irreversible.
SKIN May be corrosive or highly irritating to the skin. Repeated contact may cause sensitization and/or dermatitis.

FIRST AID:**EYES**Flush with water for at least 15 minutes. **GET MEDICAL ATTENTION.****SKIN**

Wash thoroughly with water. Remove contaminated clothing and shoes. Wash clothing before re-use. Get medical attention if effects such as swelling or reddening occur.

INHALATIONRemove to fresh air if effects occur and administer oxygen if necessary. **GET MEDICAL ATTENTION.****INGESTION****GET MEDICAL ATTENTION IMMEDIATELY.** Do not induce vomiting unless directed by a physician.**SECTION VI - REACTIVITY DATA****STABILITY:** Stable under normal storage conditions.**INCOMPATIBILITY:** Avoid bringing into contact with strong oxidizing agents, and strong Lewis or Mineral acids, bases**HAZARDOUS DECOMPOSITION PRODUCTS:** See Section IV**SECTION VII - SPILL OR LEAK PROCEDURE****STEPS TO TAKE IF SPILLED:** Using adequate 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.**ASTE DISPOSAL:** Product is classified as "Corrosive" and as such, must be disposed of as a hazardous waste according to Federal, State and Local regulations..**SECTION VIII - SPECIAL PROTECTION INFORMATION****VENTILATION REQUIREMENTS:** Local, except in confined spaces, e.g., tanks, in which case proper respiratory equipment (see below) is required.**PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED FOR NORMAL USE CONDITIONS:****EYE PROTECTION:** Chemical goggles.**SKIN PROTECTION:** Rubber or plastic gloves.**RESPIRATORY PROTECTION:** Respirator with organic vapor cartridge N/A with local exhaust.**SECTION IX - SPECIAL PRECAUTIONS**

1. Prevent all skin and eye contact, as this product may cause sensitization.
2. Reseal partially used containers and store in cool location away from oxidizers and strong acids
3. Ensure that all containers are properly labeled to prevent accidental ingestion
4. Observe conditions of good industrial hygiene and safe working place
5. Wash with soapy water before eating, drinking, smoking or using lavatory

SECTION X - TRANSPORTATION**DOT PROPER SHIPPING NAME:** Amines, Liquids Corrosive NOS
(1,3-Cyclohexanedimethanamine,xylenediamine)**DOT HAZARD CLASSIFICATION OR DIVISION:** 8**IDENTIFICATION NUMBER:** UN 2735**PACKAGING GROUP:** III**LABELS REQUIRED:** Corrosive**SECTION XI - REGULATORY INFORMATION****WHMSIS CLASSIFICATION** - Class E, Corrosive**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.**