

MATERIAL SAFETY DATA SHEET

In case of Emergency / En cas D'urgence: Canutec 613-996-6666

PREPARATION INFORMATION:

**Prepared for use in Canada by:
Quality Control & Product Safety Department
ICAT Industries Inc. 648 Welham Rd. Barrie, ON L4N 9A1 (705) 739-0445**

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1. **CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

IN CASE OF EMERGENCY: (705) 739-0445 (All provinces)

Product: CEL-375 PART A Epoxy Resin

Product Code: 375a

Effective Date: December 16, 2017 Date Printed: July 31/2018 MSDS: 375a

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2. **COMPOSITION/INFORMATION ON INGREDIENTS**

Reaction product of Epichlorohydrin and Bisphenol A CAS# 025085-99-8 30-60%

3. **HAZARDS IDENTIFICATION**

POTENTIAL HEALTH EFFECTS (see Section 11 for toxicological data)

EYE: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely.

SKIN: Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation. Has caused allergic skin reaction in humans. A single prolonged exposure is not likely to result in material being absorbed through the skin in harmful amounts.

INGESTION: Single dose oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

INHALATION: Vapors are unlikely due to physical properties.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Except for skin sensitization, repeated exposures to low molecular weight diglycidal ether of Bisphenol A are not anticipated to cause any significant adverse effects.

CANCER INFORMATION: A recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classifiable as to its carcinogenicity.

TERATOLOGY (Birth Defects): Birth defects are unlikely. Even exposures having had an adverse effect on the mother should have no effect on the fetus.

REPRODUCTIVE EFFECTS: In animal studies, it has been shown not to interfere with reproduction.

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4. **FIRST AID**

EYES: Flush eyes with plenty of water.

SKIN: Wash off in flowing water or shower

INGESTION: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

INHALATION: No adverse effects anticipated by this route of exposure.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on the judgement of the physician in response to reactions of the patient.

5. **FIRE FIGHTING MEASURES**

FLAMMABLE PROPERTIES:

FLASH POINT: 485F, 252C

METHOD USED: ASTM D93, PMCC

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABILITY LIMITS:

LFL: Not applicable

UFL: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water. The thermal decomposition products of epoxy resins therefore should be treated as hazardous substances, and appropriate precautions should be taken.

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical

OTHER FLAMMABILITY INFORMATION: None known

FIRE FIGHTING INSTRUCTIONS: use water spray to cool fire exposed containers and fire affected zone until fire out and danger of re-ignition has passed.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive pressure self-contained breathing apparatus and full protective equipment.

6. **ACCIDENTAL RELEASE MEASURES:** (See Section 15 for Regulatory Information)

PROTECT PEOPLE: Keep unnecessary people away; isolate hazard area and deny unnecessary entry.

PROTECT THE ENVIRONMENT: For large spills, evacuate upwind of spills and contain with dike. Keep out of sewers, storm drains, surface water and soil. Keep spark producing equipment away.

CLEANUP: Soak in absorbant material such as sand, or polypropylene or polyethylene fiber products and collect in suitable containers. Residual resin may be removed by using steam or hot soapy water. Solvents are not recommended for cleanup unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent MSDS for handling information and exposure guidelines. Keep spark producing equipment away.

7. **HANDLING AND STORAGE**

HANDLING: Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material.

STORAGE: Recommended pumping and storage temperature is below 60°C.

8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

ENGINEERING CONTROLS: Good general ventilation should be sufficient for most conditions.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Use safety glasses

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as faceshield, gloves, boots, apron, or full-body suit will depend on operation. Remove contaminated clothing immediately, wash skin with soap and water, and launder clothing before reuse.

RESPIRATORY PROTECTION: No respiratory protection should be needed.

EXPOSURE GUIDELINES: None established.

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9. **PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: Black liquid to semi-solid.
 ODOR: Faint epoxy odor.
 VAPOR PRESSURE: Not applicable
 VAPOR DENSITY: Not applicable
 BOILING POINT: Not applicable
 SOLUBILITY IN WATER: None
 SPECIFIC GRAVITY: 1.16

10. **STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable at ambient temperatures.

CONDITIONS TO AVOID: Excess heating above 60C over long periods of time degrades the resin.

INCOMPATIBILITY WITH OTHER MATERIALS: Bases, acids amines and oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Refer to Section 5 for Hazardous Combustion Products.

HAZARDOUS POLYMERIZATION: Will not occur by itself, but masses of more than 1 pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

11. **TOXICOLOGICAL INFORMATION** (see Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1).

SKIN: The LD50 for skin absorption in rabbits is 20,000 mg/kg.

INGESTION: The oral LD50 for rats is >500 mg/kg.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Animal mutagenicity studies were negative. In-vitro mutagenicity studies were negative in some cases and positive in others.

12. **ECOLOGICAL INFORMATION** For detailed ecological information, write or call the address or non-emergency number shown in Section 1).

MOVEMENT & PARTITIONING: Based on information for Bisphenol A. Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3).

DEGRADATION & TRANSFORMATION: Based on information for Bisphenol A. Biodegradation under aerobic static laboratory conditions is below detectable limits (ie. BOD less than 2.5% of theoretical) in 20 days.

ECOTOXICOLOGY: Based on information for Bisphenol A. Material is highly toxic to aquatic organisms on an acute basis (LC50 between 0.1 and 1.0 ml/L in most sensitive species).

13. **DISPOSAL CONSIDERATIONS** (See Section 15 for regulatory information)

DISPOSAL: Any disposal practices must be in compliance with any federal, Provincial/state and local laws and regulations. Regulations may vary in different locations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered 'arranging for disposal'.

Do not allow into any sewers, on the ground or into any body of water.

The preferred waste management option for unused, uncontaminated, unreformulated, or not otherwise altered material is to send to a properly licenced or permitted recycler, reclaimer or incinerator. The same waste management options are recommended for used or contaminated material although additional evaluation is required.

Refer to 40 CFR Section 261, and/or any other appropriate federal, provincial/state or local requirements for proper classification. For additional information, see MSDS Reactivity (Section 10) or Regulatory Information (Section 15).

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14. **TRANSPORT INFORMATION**

For DOT regulatory information, if required, consult transportation regulations, product shipping papers or contact your ICAT Industries representative.

CANADIAN TDG INFORMATION: This product is not regulated by TDG when shipped domestically by land.

15. **REGULATORY INFORMATION** (Not meant to be all-inclusive; selective regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyers responsibility to ensure that its activities comply with federal, provincial/state, and local laws. The following specific information is made for the purpose of complying with numerous federal, provincial/state, and local laws and regulations. See other sections for health and safety information.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials System (WHMIS) Classification for this product is:

D2B - skin sensitizer

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14):

COMPONENTS: Reaction product of epichlorohydrin & bisphenol A

CAS# 025085-99-8

AMOUNT (%w/w): 30-60%

EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard

This product has been classified as "an immediate health hazard" due to the potential for allergic skin reaction.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "hazardous chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

16. **OTHER INFORMATION**

None

The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult ICAT Industries Inc. For Further Information.