



EPO100HCR Novalac High Chemical Resistance PART A

IDENTIFICATION OF SUBSTANCE

Trade Name: EPO100HCR Novalac Part A

COMPOSITIONS AND INFORMATION ON INGREDIENTS

Component CAS Number

Reaction product of epichlorohydrin and phenol-formaldehyde

High Chemical Resistant Epoxy 028064-14-4 100

Reaction product. bisphenol F-(epichlorohydrin); epoxy resin

1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane.

HAZARD IDENTIFICATION

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 the material being absorbed through skin in harmful amounts.

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

Inhalation: Vapors are unlikely due to physical properties.

FIRST AID

Eye: Flush eyes with plenty of water.

Skin: Wash off in flowing water or shower.

Ingestion: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

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

Note to Physician: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.



FIRE FIGHTING MEASURES

Flammable Properties: Flash point 218oC (ASTM D93)

Auto ignition temperature Not applicable

Flammability Limits: LFL Not applicable

UFL Not applicable

Hazardous Combustion Products: Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to phenolic, carbon monoxide and carbon dioxide.

Other Flammability Information: Container may rupture from gas generation in a fire situation.

Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.

Extinguishing Media: Water fog or fine spray, foam, and carbon dioxide, dry chemical.

Fire Fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. Do not use direct water stream. May spread fire. Use water spray to cool fire exposed containers and fire-affected zone until fire is out and danger of re-ignition has passed. Move container from fire area if this is possible without hazard. Fight fire from protected location or safe distance. Consider use of unmanned hose holder or monitor nozzles. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Flushing with water to protect personnel and minimize property damage may move burning liquids. Water fog, applied gently may be used as a blanket for fire extinguishments. Contain firewater run-off if possible. Firewater run-off, if not contained may cause environmental damage.

Protective Equipments for Fire Fighting: Wear positive pressure self-contained breathing apparatus (SCBA) and full protective equipment.

ACCIDENTAL RELEASE MEASURES

Protect People: Isolate area. Clear non-emergency personnel from area.



Protect the Environment: Keep out of irrigation ditches, sewers and water supplies.

Cleanup: Absorb with material such as sand or polypropylene or polyethylene fiber products. Collect in suitable and properly labeled containers. Remove residual using hot soapy water. Residual resin can be removed with solvent. 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.

HANDLING AND STORAGE

Handling: Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire.

Storage: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guideline(s): None established.

Engineering Controls: Good general ventilation should be sufficient for most conditions.

Eye Protection: Use safety glasses.

Skin Protection: Use protective clothing impervious to this material. Selection of specific items such as face shields, 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. If respiratory irritation is experienced, use an approved air-purifying respirator.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light yellowish liquid

Odor: Mild epoxy

Boiling Point: Decomposes prior to boiling



Vapor Pressure: Not applicable

Vapor Density: Not applicable

Solubility in Water: None

Specific Gravity: 1.16 - 1.22

STABILITY AND REACTIVITY

Stability: Stable at ambient temperature.

Conditions to Avoid: Excess heating over long periods of time degrades the resin.

Material to Avoid: Acids, bases, amines and oxidizing agents.

Hazardous Decomposition Products: Refer to section 5 for Hazardous Combustion Products. Hazardous Polymerization: Will not occur by itself. Polymerization can be catalyzed by aliphatic amines. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

TOXICOLOGICAL INFORMATION

Acute Oral Toxicity (LD50/Rat): > 2,000 mg/kg

Acute Dermal Toxicity (LD50/Rabbit): > 2,000 mg/kg

ECOLOGICAL INFORMATION

Degradation: Biodegradation reached in carbon dioxide Evolution Test (Modified Sturm Test, OECD Test No. 301B) after 28 days: 10-16%. Based on the stringent test guidelines, this material cannot be considered as readily biodegradable, however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Ecotoxicity: Material is moderately toxic to fish on an acute basis (1 mg/L <LC50 <10 mg/L). Material is moderately toxic to aquatic invertebrates on an acute basis (1 mg/L <LC50 < 10mg/L).



DISPOSAL CONSIDERATIONS

Disposal: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

TRANSPORT INFORMATION

Road, Rail & Barge

Proper shipping name: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (Epoxy resin)

Truck - ADR Loaded: 9-11c Empty: 9-71 Label I: 9

Rail - RID Loaded: 9-11c Empty: 9-71 Label I: 9

Filling % Packed:

Filling % Bulk:

Filling Kg/L(Gas):

Kemler Code: 90 UN Number: 3082

Tremcard Nr. CFFIC: 90G01

Tremcard Nr. Other:

Barge - ADNR Loaded: 9-11c Empty: 9-71 Label: 9

Ship Type: - CATG. :

Sea

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Epoxy resin)

Sea - IMO/IMDG Class: 9 UN Nr: 3082 Label: 9

Packing Group: III EMS: - MFAG: -

Container Type: 2 Marine Pollutant: N (Y/N)

Test Pressure (bar): 1.5 Filling % Packed:

Filling % Bulk:

Filling Kg/L (Gas):



Air

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Epoxy resin)

Air-ICAO/IATA Class: 9 UN Nr: 3082 Label: MIS

Sub Class: -

Packing Group :III Pack Instr. Passenger: 914

Pack Instr. Cargo: 914

REGULATORY INFORMATION

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 buyer's responsibility to ensure that its activities comply with federal, state or provincial and local laws.

The following specific information is made for the purpose of complying with numerous federal, state or provincial and local laws and regulations.

EC Classification and User Label Information

Classification according to the UK Chemicals (Hazard Information and Packaging) Regulations,

CHIP.

Hazard Symbol: Xi Irritant

N Dangerous for the Environment

Risk Phrases: R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R51/53 Toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S28 After contact with skin, wash immediately with plenty of water and soap.

S37/39 Wear suitable gloves and eye/face protection.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheet.



Chemical Name: Reaction product: Phenol-Formaldehyde High Chemical Resistant Epoxy with Epichlorohydrin (EC number NLP)

Remarks: Contains epoxy constituents. See information supplied by the manufacturer.

EINECS Status

Resin is a polymer according to the 6th Amendment of Directive 67/548/EEC. Resin is a substance according to the 7th Amendment of Directive 67/548/EEC.

OTHER INFORMATION

The information presented herein is based on data considered to be accurate as of date of preparation of the Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

Date of Issue: 19.02.16

IMPORTANT NOTICE:

Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact the Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER:

This Technical Data Sheet (TDS) summarises to the best of our knowledge the product, including how to use and apply the product based on the information available at the time.

You should read this TDS carefully and consider the information in the context of how you will apply the product, including if it is being used in conjunction with any other products, the type of surfaces and the manner in which the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. All Purpose Coatings does not accept any liability either directly or indirectly for any losses suffered that arises from the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.