

# MATERIAL SAFETY DATA SHEET • MSDS



## SECTION 1 • PRODUCT IDENTIFICATION

<b>TRADE NAME</b>	<b>EPOXY RESIN</b>
<b>ANAMET PRODUCT NUMBER</b>	<b>233-R</b>

### CHEMICAL NAME

**MANUFACTURER / SUPPLIER'S NAME**  
**ADDRESS**

ANAMET  
P.O. Box 538  
BOUCHERVILLE, QUÉBEC, J4B 6Y2

**TELEPHONE NO.**

(450) 646-1290

**EMERGENCY TELEPHONE NO.**

**CANUTEC (613)-996-6666**

## SECTION II • COMPOSITION / INFORMATION ON COMPONENTS

<b>Chemical characterization Description</b>	<b>CAS number</b>	<b>%</b>	<b>OSHA PEL (mg/m<sup>3</sup>)</b>	<b>ACGIH TLV (mg/m<sup>3</sup>)</b>
Polymer of epichlorohydrin and bisphenol A.	025085-99-8	83	Not established.	Not established.
Alkyl glycidyl ether (C12-C14).	068609-97-2	17	Not available.	Not available.

**NOTE:** Ingredients are listed on the TSCA Inventory of Chemical Substances. Those not identified are non-hazardous.

## SECTION III • PHYSICAL / CHEMICAL CHARACTERISTICS

<b>Boiling point in °C</b>	>148.9°C (300°F)	<b>Vapor pressure (mm Hg)</b>	0.06 mmHg @70 F.
<b>Melting point in °C</b>	Not applicable.	<b>Vapor density (Air = 1)</b>	Not applicable.
<b>Density (Water = 1)</b>	1.11 - 1.14	<b>Evaporation rate (Butyl acetate= 1)</b>	Not available.
<b>Solubility in water</b>	Insoluble.		
<b>Appearance and odor</b>	Yellow liquid. Mild odor.		



**SECTION IV • FIRE / EXPLOSION HAZARD**

<b>Flash point</b>	176.7°C (350°F).			
<b>Flammable limits</b>	<b>LEL</b>	Not applicable.	<b>UEL</b>	Not applicable.
<b>Extinguishing media</b>	Water fog or fine spray, dry chemical fire extinguishers, carbon dioxide fire extinguishers and foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.			
<b>Special fire fighting procedures</b>	Wear positive pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots and gloves). If protective equipment is not available or not used, fight fire from protective location or safe distance.			
<b>Unusual fire and explosion hazards</b>	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.			

**SECTION V • REACTIVITY**

<b>Stability</b>	Thermally stable at typical use temperatures.
<b>Conditions to avoid</b>	Avoid temperatures above 300°C (572°F). Potentially violent decomposition can occur above 350°C (662 F). Generation of gas during decomposition can cause pressure in closed systems. Pressure build up can be rapid.
<b>Incompatibility</b>	Avoid contact with: oxidizing materials, acids, bases. Avoid unintended contact with amines.
<b>Hazardous decomposition products</b>	Decomposition products depend upon temperature, air supply and the presence of other materials, Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolic, carbon monoxide and water.
<b>Hazardous Polymerization</b>	Will not occur by its self. Masses more than one pound (0.45kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat built up.
<b>Thermal Decomposition</b>	Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.



**SECTION VI • TOXICOLOGICAL PROPERTIES OF PRODUCT**

**A - SUGGESTED FIRST AID**

<b>Eyes</b>	Irrigate with eyewash solution or clean water, holding the eyelids apart for at least 15 minutes. Obtain medical attention. Never give anything by mouth to an unconscious person. Call a physician.
<b>Skin</b>	Remove contaminated clothing. Wash skin immediately with water. Items which cannot be decontaminated should be disposed of properly.
<b>Inhalation</b>	Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.

**NOTES TO PHYSICIAN:** Consider additional thorough skin wash with non-abrasive soap and plenty of warm water for at least 15 minutes. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

**B – TOXICOLOGICAL INFORMATION**

**PRIMARY ENTRY ROUTES:** Inhalation, ingestion, skin, and eye contact.

**▼ SHORT TERM EXPOSURE ▼**

<b>Eyes</b>	May cause slight temporary eye irritation. Corneal injury is unlikely.
<b>Skin</b>	Has caused allergic skin reactions in humans. Prolonged exposure not likely to cause significant skin irritation. Prolonged skin contact is unlikely to result in the absorption of harmful amounts.
<b>Inhalation</b>	Excessive exposure may cause irritation to upper respiratory tract (nose and throat).
<b>Ingestion</b>	Low oral toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

**▼ LONG TERM EXPOSURE ▼**

<b>Carcinogenicity</b>	Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBPA is carcinogenic. Indeed, the most recent review of the available data by the IARC has concluded that DGEBPA is not classified as a carcinogen.
<b>Teratogenicity, Mutagenicity and other reproductive effects</b>	DGEBPA did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally. In animal studies, DGEBPA-based epoxy resins have been shown not to interfere with reproduction.
<b>Skin Sensitization</b>	Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.
<b>Respiratory tract</b>	Not available.

# MATERIAL SAFETY DATA SHEET • MSDS



sensitization	
Synergistic materials	Not available.

## SECTION VII • PERSONAL PROTECTION MEASURES PERSONAL PROTECTIVE MEASURES

Eye, face & hands	Safety spectacles/Full Face Shield. Use protective chemically resistant for this material.
Respiratory protection	Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. In the event of formation of particularly high levels of vapor a self-contained breathing apparatus may be appropriate.
Ventilation	Provide adequate ventilation, including appropriate local extraction, to insure that the defined occupational exposure limit is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.
Hearing	As needed in accordance with OSHA 1910-215.
HMIS Coding	Health: 2 Flammability: 1 Reactivity: 0

## SECTION VIII • SAFETY PRECAUTIONS IN CASE OF LEAKS OR SPILLS

Spill or leak procedure	Ensure suitable personal protection (including respiratory protection) during removal of spillages. Prevent entry into drains. Adsorb spillages with material such as sand. Collect in suitable and properly labeled container. Remove residual with soap and hot water. Solvents are not recommended for clean up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent SDS for handling information and exposure guide lines.
Waste disposal	Disposal should be in accordance with local, state, or national legislation.

## SECTION IX • STORAGE AND HANDLING

Storage	Keep in a cool, well ventilated place.
Handling	Avoid contact with skin, eyes and clothing. Avoid inhalation of high concentration of vapors. Use in well ventilated area.
Shipping classification DOT hazard class	<ul style="list-style-type: none"> <li>• <b>Dot Shipping Name:</b> Not regulated.</li> <li>• <b>TDG/UN Shipping Names:</b> Not regulated.</li> <li>• <b>UN Number:</b> Not regulated.</li> <li>• <b>Hazard Class:</b> Not regulated.</li> <li>• <b>Packing Group:</b> Not regulated.</li> <li>• <b>TDG Exemption:</b> Not regulated</li> <li>• <b>Label:</b> Not regulated</li> <li>• <b>IATA Class:</b> Not regulated.</li> <li>• <b>IMDG Class:</b> Not regulated</li> </ul>
HMIS Coding	Health: 2 Flammability: 1 Reactivity: 0



**SECTION X • ECOLOGICAL INFORMATION**

<b>Environmental Fate and Distribution</b>	Based largely or completely on information for diglycidyl ether of bisphenol A: bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Potential for mobility in soil is low (Koc between 500 and 2000).
<b>Persistence and Degradation</b>	Based largely or completely on information for diglycidyl ether of bisphenol A: biodegradation reached in Modified Zahn-Wellens/EMPA Test (OECD Test No. 302B) after 28 days: 12 %.
<b>Toxicity</b>	Based largely or completely on information for diglycidyl ether of bisphenol A: material is moderately toxic to aquatic organism on an acute basis (LC50 or EC50 between 1 and 10 mg/L in most sensitive species tested).
<b>Effect of effluent treatment</b>	Not available.

**SECTION XI • REGULATORY INFORMATION**

<p><b>• EC REGULATIONS:</b></p> <p>TSCA: On Toxic Substance Control Inventory.                  CERCLA REPORTABLE QUANTITY: None.                  SARA TITLE III:</p> <ul style="list-style-type: none"> <li>• Section 313 Toxic Chemicals: None.</li> <li>• Section 311/312 Hazardous Categories: None.</li> <li>• Section 302 Extremely Hazardous Substances: None.</li> </ul> <p>RCRA STATUS: Not regulated.</p>
--

<p><b>• CANADIAN REGULATIONS:</b></p> <p><u>WHMIS Classification: D2B.</u></p>
--

# MATERIAL SAFETY DATA SHEET • MSDS

Anamet Inc. declines all warranties of description, merchantability or fitness for a particular purpose or any other warranties expressed or implied. All information contained in this data sheet result from figures supplied by the merchant and/or other recognized technical sources. Although this information is presumed to be complete and exact, Anamet Inc. does not guaranty any of the claims expressed or implied. Since the use of this product is not supervised by Anamet Inc., users are therefore responsible to verify if the product is designed for their particular application. They must also assume all risks associated with its use, manipulation and the elimination of the product as well as those arising from the publication, utilization or exactitude of the information contained in the present data sheet. This information pertains only of the product referred to in this specific data sheet and does not apply to its use in combination with other products or in any other process. In no event, Anamet Inc. will be liable for incidental or consequential damages resulting from the use or misuse of this product.



## **TERMINOLOGY**

**ACGIH:** American Conference of Governmental Industrial Hygienists

**CAS:** Chemical Abstract Service

**CFR:** Code of Federal Regulations (Transportation in U.S.A.)

**DOT:** Department of Transportation (USA)

**DSL:** Domestic Substance List

**IARC:** International Agency for Research and Cancer

**LC:** Lethal Concentration

**LD:** Lethal Dosage

**MSHA:** Mine Safety and Health Administration (USA)

**NIOSH:** National Institute for Occupational Safety and Health (USA)

**NTP:** National Toxicology Program (U.S.A.)

**OSHA:** Occupational Safety and Health Administration (USA)

**PEL:** Permissible exposure limit.

**STEL:** Short term exposure limit.

**TDG:** Transportation of Dangerous Goods

**TLV:** Threshold limits value.

**TSCA:** Toxic Substances Control Act

**TWA:** Time-weighted average

**USEPA:** United States Environmental Protection Agency

**WHMIS:** Workplace Hazardous Materials Information System