

SAI Global File #004008

Burlington, Ontario, Canada

832B-A

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: 832B-A

Other Means of Identification: Black Epoxy Encapsulating and Potting Compound (Part A) Related Part # 832B-375ML, 832B-375MLCA, 832B-450ML, 832B-3L, 832B-12L, 832B-60L

Recommended Use and Restriction on Use

Use: Epoxy resin for use with hardeners

Uses Advised Against: Not for use as a spray coating

Details of Manufacturer or Importer

Manufacturer

MG Chemicals 1210 Corporate Drive Burlington, Ontario L7L 5R6 CANADA

***** +1-800-340-0772 Fax +1-800-340-0773 E-MAIL support@mgchemicals.com www.mgchemicals.com **W**EB

MG Chemicals (Head Office)

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Surrey, British Columbia V4N 4E7

CANADA

+1-905-331-1396 FAX +1-905-331-2682 E-MAIL info@mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents) USA or CANADA—Call CHEMTREC at +1-800-424-9300

For emergencies involving the transport of dangerous goods; 24/7 service CANADA—Call CANUTEC collect at +1-613-996-6666 or *666 on cellular phones



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Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria		Category	Signal Word	Pictograms
Sensitization	Skin	1	Warning	Exclamation
Eye Irritation		2	Warning	Exclamation
Skin Irritation		2	Warning	Exclamation
Hazardous to the Aquatic Environment	Chronic	2	none	Environment
Hazardous to the Aquatic Environment	Acute	2	none	none

Note: The degree of severity is ranked within each hazard class from

Label Elements

Signal Word	WARNING
Pictograms	Hazard Statements
	H319: Causes serious eye irritation
	H315: Causes skin irritation
•	H317: May cause an allergic skin reaction
***	H411: Toxic to aquatic life with long lasting effects

^{1 (}Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.



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Continued...

Prevention	Precautionary Statements
P102	Keep out of reach of children.
P261	Avoid breathing fumes/vapors.
P280	Wear protective gloves/eye protection/face protection.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
Response	Precautionary Statements
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
None	None	None	None



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Section 3: Composition/Information on Ingredients

CAS#	Chemical Name	%(weight)
25085-99-8	propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	88%
68609-97-2	alkyl glycidyl ether	10%
25068-38-6	bisphenol-A epoxy resin (reaction product) a)	1%
1333-86-4	carbon black	0.4%

a) Average molecular weight of ≤700

Section 4: First-Aid Measures

Exposure Condition	GHS Code/Symptoms/Precautionary Statements
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	redness, irritation, pain
Response	Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice/attention.
IF ON SKIN	P302 + P352, P333 + P313, P362 + P364
Immediate Symptoms	redness, irritation, dry skin, allergic contact dermatitis
Response	Wash with plenty of water.
	If skin irritation or rash occurs: Get medical advice/attention.
	Take off contaminated clothing and wash it before reuse.
IF INHALED	P304 + P340, P312
Immediate Symptoms	cough, irritation of the respiratory track
Response	Remove person to fresh air and keep comfortable for breathing.
	If you feel unwell: Get medical advice/attention.
IF SWALLOWED	P301 + P330, P331
Immediate Symptoms	low toxicity: irritation
Response	Rinse mouth. Do NOT induce vomiting.

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Section 5: Fire-Fighting Measures

Extinguishing Media In case of fire: Use extinguishing media suitable for

surrounding materials.

Specific Hazards Not flammable or combustible, but burns if involved in a fire.

Produces irritating smoke of unknown toxicity in fires.

Prevent fire-fighting wash from entering waterway or sewer

system.

Combustion Products Produces carbon oxides (CO,CO₂) and toxic fumes.

Fire-Fighter Wear self-contained breathing apparatus and full fire-fighting

turn-out gear.

Section 6: Accidental Release Measures

Personal Protection See personal protection recommendations in Section 8.

Precautions for

Response

Avoid breathing fumes/vapors. Remove or keep away all

sources of extreme heat or open flames.

Environmental

Precautions

Avoid releasing to the environment. Prevent spill from entering

drains and waterways.

Containment Methods Contain with inert and non-flammable absorbent (such as soil,

sand, vermiculite).

Cleaning Methods Collect liquid in a sealable, chemical-resistant container.

Sprinkle inert absorbent compound onto spill, then sweep into the container. Wipe off residues with paper towels and place the used towels in the waste container. Use soap and water to

remove the last traces of residue.

Disposal Methods Dispose of spill waste according to Section 13.



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Section 7: Handling and Storage

Prevention Keep out of reach of children.

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

Avoid breathing fumes/vapors or contact with skin or eyes.

Avoid release to the environment.

Handling Wear protective gloves/clothing/eye protection.

Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the

workplace.

Wash hands thoroughly after handling.

Collect spillage.

Storage Not applicable

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
carbon black ^{a)}	ACGIH	3.5 mg/m ³	Not established
	U.S.A. OSHA PEL	3.5 mg/m ³	Not established
	Canada AB	3.5 mg/m ³	Not established
	Canada BC	3 mg/m ³	Not established
	Canada ON	3.5 mg/m ³	Not established
	Canada QC	3.5 mg/m ³	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database² and from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Respirable airborne particles

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Engineering Controls

Ventilation Keep airborne concentrations below the occupational exposure

limits (OEL).

Because the carbon black is bound to the liquid mixture, it does not present an airborne hazard under normal use. Ensure adequate ventilation if the product is mechanically misted or

aerosolized.

Personal Protective Equipment

Eye protection Wear appropriate protective eyeglasses or chemical safety

goggles.

RECOMMENDATION: Ensure that glasses have side shields for

lateral protection.

Skin Protection For likely contacts, use of protective butyl rubber or other

chemically resistant gloves.

For incidental contacts, use nitrile or other chemically resistant

gloves.

Respiratory Protection For emergencies and exposure above 0.5 mg/m³, use a self-

contained breathing apparatus with full face piece operated in

a pressure positive mode.

If the product is heated or worker has a known allergic

reaction, consider using a full mask with organic vapor

cartridge or with an independent air supply.

RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3.

The respirator should be fitted to the employee by a

professional. Ensure vapor cartridges are stored in sealed

plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.



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Section 9: Physical and Chemical Properties

Physical State	Liquid	Lower Flammability Limit	Not available
Appearance	Black	Upper Flammability Limit	Not available
Odor	Mild	Vapor Pressure @20 °C	Not available
Odor Threshold	Not available	Vapor Density	>1 (Air=1)
рН	Not available	Specific Gravity @25 °C	1.13
Freezing/Melting	Not	Solubility in	Negligible
Point	available	Water	
Boiling Point a)	≥150 °C	Partition	Not
	[≥302 °F]	Coefficient	available
Flash Point b)	113 °C	Auto-ignition	≥235 °C
	[235 °F]	Temperature ^{b)}	[≥455 °F]
Evaporation	Not	Decomposition	Not
Rate	available	Temperature	available
Flammability	Not	Viscosity	1 800 mm ² /s
(solid, gas)	applicable	@25 °C	

a) Component with the lowest value—bisphenol-A epoxy resin (reaction product)

Section 10: Stability and Reactivity

Reactivity Reacts exothermically with amines.

Chemical Chemically stable at normal temperatures and pressures

Stability

Avoid

Conditions to Ignition sources, open flames, and incompatible substances

Incompatibilities Strong oxidizing agents, strong acids, alkaly

Polymerization Will not occur

Decomposition Will not decompose under normal conditions. For thermal

decomposition, see combustion products in Section 5.

b) Component with the lowest value— alkyl glycidyl ether closed cup



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Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

Eyes May cause redness, severe irritation, or pain.

Skin May cause skin redness, irritation, dry skin, or allergic contact

dermatitis.

Inhalation May cause cough and respiratory irritation.

Ingestion Low toxicity: may cause irritation. (See inhalation symptoms).Chronic Prolonged and repeated exposure may lead to skin sensitization.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50	LD50	LC50
	oral	dermal	inhalation
propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	Not	23 000 mg/kg	Not
	available	Rat	available
alkyl glycidyl ether	19 200 mg/kg	4 500 mg/kg	Not
	Rat	Rat	available
reaction products: bisphenol-A-(epichlor- hydrin) and epoxy resin ^{a)}	11 400 mg/kg Rat	Not available	Not available
carbon black	>15 g/kg	>3 g/kg	Not
	Rat	Rabbit	available

Note: Toxicity data from the RTECS² and ECHA were consulted. The data from supplier (M)SDS were also consulted.

Other Toxicological Effects

Skin corrosion/irritationBased on tests on rabbits, the epoxy resins are

moderate skin irritants.

Serious eye Based on tests on rabbits, the epoxy resins are severe

damage/irritation eye irritant.

Sensitization Based on animal studies on the epoxy components, this

(allergic reactions) product is a skin sensitizer

a) Referred to as bisphenol-A epoxy resin (reaction product)



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Carcinogenicity (risk of cancer)

Because the carbon black is bound in the epoxy liquid mixture, it is not available as an airborne hazard (dust,

mist, or spray) under normal use.

Carbon Black [1333-86-4]

IARC Group 2B: Possibly carcinogenic to humans ACGIH A4: Not classified as a human carcinogen

CA Prop 65: Listed as a carcinogen (airborne, as

unbound particles of respirable size)

NTP: Not listed

Mutagenicity

(risk of heritable genetic

effects)

Based on available data, the classification criteria are

not met.

Reproductive Toxicity

(risk to sex functions)

Based on available data, the classification criteria are

not met.

Teratogenicity (risk of fetus

malformation)

Based on available data, the classification criteria are

not met.

STOT-single exposure Based on available data, the classification criteria are

not met.

STOT-repeated exposure Based on available data, the classification criteria are

not met.

Aspiration hazard Based on available data, the classification criteria are

> not met. There is less than 0.2% category 1 components, and the kinematic viscosity is >20.5

mm²/s at 40 °C.

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Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (http://echa.europa.eu), and other reliable sources.

In Europe, similar epoxy resin mixtures with CAS# 25085-99-8 and 25068-38-6 with average molecular weight of less than 700 are generally classified as chronic category 2 marine pollutant due to LC50 96 h of >1 mg/L but ≤ 10 mg/L.

Based on available data, carbon black and alkyl glycidyl ether are not classified as environmental hazards according to GHS criteria.

Acute Ecotoxicity

See chronic ecotoxicity.

Chronic Ecotoxicity

Category 2

Toxic to aquatic life with long lasting effect

Avoid release to the environment. Collect spillage.

Biodegradability

Not available

Bioaccumulation

Not available

Other Effects

Not available

Section 13: Disposal Considerations

Dispose of contents in accordance with all local, regional, national, and international regulations.

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Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations); **USA DOT 49 CFR** (Parts 100 to 185) **Regulations**.

TDG: Sizes under 450 L

Part A of 832B-375ML, 832B-450ML, 832B-3L, 832B-12L, 832B-60L kits

NOT REGULATED in TDG per Special Provisions 99(2)

49 CFR: Sizes 5 L and under Part A of 832B-375ML, 832B-450ML, 832B-3L, 832B-12L kits

NOT REGULATED in 49 CFR per exception 171.4 (c)(2)

49 CFR: Sizes greater than 5 L

Part A of 832B-60L kit

UN number: UN3082 Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers)

Class: 9

Packing Group: III Marine Pollutant: Yes





Special Provision 99 (2): These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

171.4 (c) Exceptions:

(2) Single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other requirements of this subchapter provided the packagings meet the general requirements in §§ 173.24 and 173.24a. This exception does not apply to marine pollutants that are a hazardous waste or a hazardous substance. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this subchapter relevant to any additional hazards continue to apply.

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Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 5 L and under:

Part A of 832B-375ML, 832-450ML, 832B-3L, 832B-12L kits

NOT REGULATED

On air waybill write: "Not Restricted, as per Special Provisions A197" Sizes greater than 5 L:

Part A of 832B-60L kit

UN number: UN3082 Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers)

Class: 9

Packing Group: III Marine Pollutant: Yes





Special Provision A197: These substances when transported in single or combination packagings containing net quantity per single or inner packaging of less than 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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Sea

Refer to IMDG regulations.

Sizes 5 L and under

Part A of 832B-375ML, 832B-450ML, 832B-3L, 832B-12L kits

NOT REGULATED

per 2.10.2.7

Sizes greater than 5 L

Part A of 832B-60L kit

UN number: UN3082 Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (propane, 2,2-bis[p-(2,3-

epoxypropoxy)phenyl]-, polymers)

Class: 9

Packing Group: III Marine Pollutant: Yes





2.10.2.7: Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provision of this Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this Code relevant to any additional hazards continue to apply.

Note: Shipper must be appropriately <u>trained and certified</u> before involvement with the transport of dangerous goods.

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.



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USA

Other Classifications

HMIS® RATING

HEALTH:	*	2
FLAMMABILITY:		1
PHYSICAL HAZARD:		0
PERSONAL PROTECTION:		

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain substances which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, June 06, 2014 revision, USA).

This product contains carbon black, but it is bound and exposures during normal conditions of uses are below the Safe Harbor Threshold.

Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

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Section 16: Other Information

SDS Prepared by Michel Hachey
Date of Review 02 March 2018
Supersedes 31 October 2017

Reason for Changes: Changes to section (add new part number), section 2 (modified

ingredients), and section 14.

Reference

1) ACGIH 2017 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2017).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)



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Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists (USA)

EC50 Half maximal effective concentration

EL50 Half maximal effective loading

IARC International Agency for Research on Cancer

NOELR No observable effect loading ratio
NTP National Toxicology Program

GHS Globally Harmonized System of Classification of Labeling of Chemicals

LC50 Lethal Concentration 50%

LCLo Lowest published lethal concentration

LD50 Lethal Dose 50%

OEL Occupational Exposure Limit PEL Permissible Exposure Limit

SDS Safety Data Sheet

STEL Short-Term Exposure Limit

TCLo Lowest published toxic concentration

TWA Time Weighted Average VOC Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or

problems with this product. Application notes, instructions, and FAQs

are located at www.mgchemicals.com.

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L7L 5R6 V4N 4E7

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M.G. Chemicals, Ltd. believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to query and verify any information seeming suspect where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, regional, national, and international

regulations.