

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Safety Data Sheet

Section 1: Identification**Product Identifier and Other Means of Identification**

Product Name: Black Epoxy Encapsulating and Potting Compound **SDS Code:** 832B-Part A
Related Part # 832B-375ML, 832B-3L, 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

MG Chemicals (Head Office)
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Surrey, British Columbia V4N 4E7
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E-MAIL support@mgchemicals.com

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TEL +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 ☎: **+1-800-424-9300**

For emergencies involving dangerous goods; Collect 24/7

CANADA: Call CANUTEC ☎: **+1-613-996-6666** or ***666** on cellular phones

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria		Category	Signal Word	Pictograms
Carcinogenicity		2	Warning	Health
Sensitization	Skin sensitizer	1	Warning	Exclamation
Eye Irritation		2	Warning	Exclamation
Skin Irritation		2	Warning	Exclamation
Environmental Hazard	Chronic Aqua. Tox.	2	Warning	Environment
Environmental Hazard	Acute Aqua. Tox.	2	Warning	Environment

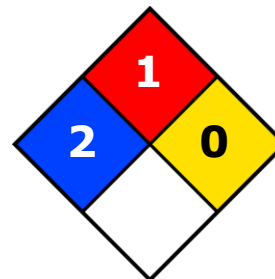
Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

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)

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BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Label Elements

Signal Word	WARNING
Pictograms	Hazard Statements
	H319: Causes serious eye irritation H315: Cause skin irritation H317: May cause an allergic skin reaction
	H351: Suspected of causing cancer.
	H411: Toxic to aquatic life with long lasting effects
Prevention	Precautionary Statements
P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing fumes/mist/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.

Section continued on the next page

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A
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Prevention	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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.
Storage	Precautionary Statements
P405	Store locked up.
Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Hazards Not Otherwise Classified

No other known hazards

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(wt/wt)
25068-38-6	bisphenol-A epoxy resin (reaction product) ^{a)}	80-95%
68609-97-2	alkyl glycidyl ether	7-13%
1333-86-4	carbon black	0.1-1%

 a) Average molecular weight of ≤ 700

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Section 4: First-Aid Measures

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	<i>redness, irritation, pain</i>
Response	Rinse cautiously with water for at least 15 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 or Delayed Symptoms	<i>redness, irritation, dry skin, allergic contact dermatitis</i>
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, P308 + P313
Immediate Symptoms	<i>cough, irritation of the respiratory track</i>
Response	Remove person to fresh air and keep comfortable for breathing. If you feel unwell: Get medical advice/attention. If exposed or concerned: Get medical advice/attention.
IF SWALLOWED	P301 + P330, P331
Immediate Symptoms	<i>Irritation</i>
Response	Rinse mouth. Do NOT induce vomiting.

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Section 5: Fire-Fighting Measures

Auto-ignition Temperature	Not available	Flash Point ^{a)}	>142 °C [>287 °F]	LFL [LEL] UFL [UEL] ^{b)}	Not available
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In case of fire	P370 + P378
Extinguishing Media	Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
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,CO ₂) and toxic fumes.
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

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

b) LFL = Lower Flammability [or Explosion] Limit (in volume %);

UFL = Upper Flammability [or Explosion] Limit (in volume %)

Section 6: Accidental Release Measures

Personal Protection	See personal protection recommendations in Section 8.
Precautions for Response	Avoid breathing the fumes/mist/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. Wash residue with a paper towel wetted with alcohol, ethyl lactate, or another suitable organic solvent; and place dirty towels in container. Use soap and water to remove the last traces of residue.
Disposal Methods	Dispose of spill waste according to Section 13.

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Section 7: Handling and Storage

- Prevention** Keep out of reach of children.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid breathing fumes/mist/vapors or contact with skin or eyes.
- Do not eat, drink, or smoke when using this product.
- 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** Store locked up.

Section 8: Exposure Controls/Personal Protection

Routes of Entry

Skin, Inhalation, and Eyes

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: The ACGIH¹, OSHA, and Canadian provinces exposure limits were consulted. Limits from by RTECS database² of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Respirable airborne particles

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BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**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 over-exposures up to 10 x OEL of mist/vapors/spray, wear respirator such as a half-mask respirator with organic vapor cartridges.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this SDS, and that the respirator is fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

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)
pH	Not available	Specific Gravity @25 °C	1.23
Freezing/Melting Point	Not available	Solubility in Water	Negligible
Boiling Point ^{a)}	≥150 °C [≥302 °F]	Partition Coefficient	Not available
Flash Point ^{b)}	>142 °C [>287 °F]	Auto-ignition Temperature ^{b)}	≥235 °C [≥455 °F]
Evaporation Rate	Not available	Decomposition Temperature	Not available
Flammability (solid, gas)	Not available	Viscosity @25 °C	1 800 mm ² /s

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

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

Section 10: Stability and Reactivity

Reactivity	Reacts exothermically with amines.
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	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

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**Section 11: Toxicological Information****Routes of Exposure**

Skin, Eyes

Symptoms Summary

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	May cause irritation (see inhalation symptoms).
Chronic	Prolonged and repeated exposure may lead to skin sensitization.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
reaction products: bisphenol-A-(epichlor-hydrin) and epoxy resin ^{a)}	11 400 mg/kg Rat	Not available	Not available
alkyl glycidyl ether	19 200 mg/kg Rat	4 500 mg/kg Rat	Not available
carbon black	>15 g/kg Rat	>3 g/kg Rabbit	Not established

Note: Toxicity data from the RTECS database accessed through the Canadian Centre for Occupational Health and Safety (CCOHS)² were consulted. The data from supplier (M)SDS were also consulted.

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

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BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**Other Toxicological Effects**

Skin corrosion/irritation	Moderate skin irritant.
Serious eye damage/irritation	Serious to moderate eye irritant
Sensitization (allergic reactions)	Skin sensitizer based on animal studies on the epoxy components
Carcinogenicity (risk of cancer)	<p>The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures under WHMIS.</p> <p>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.</p> <p>Carbon Black [1333-86-4]</p> <p>IARC Group 2B: Possibly carcinogenic to humans</p> <p>ACGIH A4: Not classified as a human carcinogen</p> <p>CA Prop 65: Listed as a carcinogen (airborne, as unbound particles of respirable size)</p> <p>NTP: Not listed</p>
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 no category 1 components, and the kinematic viscosity is >20.5 mm ² /s at 40 °C.

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**Section 12: Ecological Information**

The IMDG Code criteria, the raw-material safety data sheets, and supporting data from the European Chemical Agency database (<http://echa.europa.eu>) were used to support the classification.

In Europe, similar epoxy resin mixtures with CAS# 25068-38-6 and 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

Category 2

GHS Code: Hazard Statement

H402: Toxic to aquatic life

Chronic Ecotoxicity

Category 2

GHS Code: Hazard Statement

H412: Toxic to aquatic life with long lasting effect

Avoid release to the environment.

Biodegradability

Not available

Bioaccumulation

Not available

Section 13: Disposal Information

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

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A

Section 14: Transport Information

Ground

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

Sizes 5 liters and under

Limited Quantity



Sizes greater than 5 liters

UN number: UN3082

Shipping Name:

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

(Reaction product: bisphenol-A-
(epichlorhydrin))

Class: 9

Packing Group: III

Marine Pollutant: Yes



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 5 liters and under

Limited Quantity



Sizes greater than 5 liters

UN number: UN3082

Shipping Name:

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

(Reaction product: bisphenol-A-
(epichlorhydrin))

Class: 9

Packing Group: III

Marine Pollutant: Yes



Excepted Quantity E2 ≤30 mL

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BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**Sea****Refer to IMDG regulations.**

Sizes 5 liters and under

Limited Quantity

Sizes greater than 5 liters

UN number: UN3082**Shipping Name:**ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S.(Reaction product: bisphenol-A-
(epichlorhydrin))**Class:** 9**Packing Group:** III**Marine Pollutant:** Yes

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

Section 15: Regulatory Information**Canada****WHMIS Classification**

D2A - Very Toxic (Carcinogen IARC: 2B);

D2B - Toxic Other (Skin Sensitizer, Eye and Skin Irritant)

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

All hazardous ingredients are listed on the DSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

Section continued on the next page

BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**USA****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, which is listed as a carcinogenic substances when airborne, as unbound particles of respirable size.

Europe**RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, 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.

Section 16: Other Information

SDS Prepared by Michel Hachey

Date of Review 02 Décembre 2014

Supersedes 26 April 2013

Reason for Changes: Composition correction and changes to better meet HCS 2012 and WHMIS 2.0 requirements.

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BLACK EPOXY ENCAPSULATING AND POTTING COMPOUND 832B-PART A**Reference**

- 1) ACGIH 2013 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 (2013).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

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.

Email: support@mgchemicals.com

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