

832FX-A

(PART A)

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Identifier:** 832FX-A**Other Means of Identification:** Black Flexible Epoxy Encapsulating and Potting Compound (Part A)**Related Part #** 832FX-450ML, 832FX-1.7L, 832FX-7.4L, 832FX-40L

### Recommended Use and Restriction on Use

**Use:** Epoxy resin for use with hardeners**Uses Advised Against:** Not applicable

### Details of Manufacturer or Importer

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

**TEL** +1-800-340-0772  
**FAX** +1-800-340-0773  
**E-MAIL** [support@mgchemicals.com](mailto:support@mgchemicals.com)  
**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)

**TEL** +1-905-331-1396  
**FAX** +1-905-331-2682  
**E-MAIL** [info@mgchemicals.com](mailto:info@mgchemicals.com)

**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)

### Emergency Phone Number

**For hazardous material incidents ONLY** (leaks, spills, fires, exposures or accidents)  
USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962**  
(Service access code: 335388)**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	1	Warning	Exclamation
Eye Irritation	2	Warning	Exclamation
Skin Irritation	2	Warning	Exclamation
Hazardous to the Aquatic Environment	2	none	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.

## Label Elements

Signal Word	<b>WARNING</b>
Pictograms	<b>Hazard Statements</b>
	H317: May cause an allergic skin reaction H319: Causes serious eye irritation H315: Causes skin irritation
	H411: Toxic to aquatic life with long lasting effects
Prevention	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P261	Avoid breathing fumes/vapors.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.

Section continued on the next page

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<b>Response</b>	<b>Precautionary Statements</b>
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.
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.
P391	Collect spillage.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents/container in accordance to local/regional/international regulations.

**Hazards Not Otherwise Classified**

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
None	None	None	None

**Section 3: Composition/Information on Ingredients**

<b>CAS #</b>	<b>Chemical Name</b>	<b>%(weight)</b>
25085-99-8	propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	74%
41638-13-5	polyglycol, epichlorohydrin polymer	13%
68609-97-2	alkyl glycidyl ether	11%
25068-38-6	bisphenol-A epoxy resin (reaction product) <sup>a)</sup>	1%
1333-86-4	carbon black	0.4%

a) Average molecular weight of ≤700

**832FX-A****(PART A)****Section 4: First-Aid Measures**

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

**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
<b>Specific Hazards</b>	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.
<b>Combustion Products</b>	Produces carbon oxides (CO,CO <sub>2</sub> ) and toxic fumes.
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**832FX-A****(PART A)****Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Avoid breathing the fumes/vapors. Remove or keep away all sources of extreme heat or open flames.
<b>Environmental Precautions</b>	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
<b>Containment Methods</b>	Contain with inert and non-flammable absorbent (such as soil, sand, vermiculite).
<b>Cleaning Methods</b>	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.
<b>Disposal Methods</b>	Dispose of spill waste according to Section 13.

**Section 7: Handling and Storage**

<b>Prevention</b>	Keep out of reach of children. Avoid breathing fumes/vapors or contact with skin or eyes. Avoid release to the environment.
<b>Handling</b>	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.
<b>Storage</b>	Not Applicable

**832FX-A****(PART A)****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 <sup>a)</sup>	ACGIH	3.5 mg/m <sup>3</sup>	Not established
	U.S.A. OSHA PEL	3.5 mg/m <sup>3</sup>	Not established
	Canada AB	3.5 mg/m <sup>3</sup>	Not established
	Canada BC	3 mg/m <sup>3</sup>	Not established
	Canada ON	3.5 mg/m <sup>3</sup>	Not established
	Canada QC	3.5 mg/m <sup>3</sup>	Not established

*Note:* Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from RTECS<sup>2</sup> database 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

**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.

*Section continued on the next page*

**832FX-A****(PART A)**

**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 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.

**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Lower Flammability Limit</b>	Not available
<b>Appearance</b>	Black	<b>Upper Flammability Limit</b>	Not available
<b>Odor</b>	Mild	<b>Vapor Pressure @20 °C</b>	Not available
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	>>1 (Air =1)
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	1.13
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Negligible
<b>Initial Boiling Point</b> <sup>a)</sup>	≥150 °C [≥302 °F]	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point</b> <sup>b)</sup>	142 °C [287 °F]	<b>Auto-ignition Temperature</b> <sup>b)</sup>	≥235 °C [≥455 °F]
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Non flammable	<b>Viscosity @25 °C</b>	809 cP

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

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

**832FX-A****(PART A)****Section 10: Stability and Reactivity**

<b>Reactivity</b>	Reacts exothermically with amines.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Ignition sources, open flames, and incompatible substances
<b>Incompatibilities</b>	Strong oxidizing agents, strong acids, alkali
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

**Section 11: Toxicological Information****Summary of Effects and Symptoms by Routes of Exposure**

<b>Eyes</b>	May cause redness, irritation, or pain.
<b>Skin</b>	May cause skin redness, irritation, dry skin, or allergic contact dermatitis.
<b>Inhalation</b>	May cause cough and respiratory irritation.
<b>Ingestion</b>	May cause irritation (see inhalation symptoms).
<b>Chronic</b>	Prolonged and repeated exposure may lead to skin sensitization.

*Section continued on the next page*



**832FX-A****(PART A)****Acute Toxicity (Lethal Exposure Concentrations)**

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

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA were consulted. The data from supplier SDS were also consulted.

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

**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)

The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures under WHMIS.

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.

*Section continued on the next page*

**832FX-A****(PART A)****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  $>20.5 \text{ mm}^2/\text{s}$  at  $40^\circ\text{C}$ .

**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# 25068-38-6 and 25085-99-8 have an average molecular weight of less than 700 are generally classified as chronic category 2 marine pollutant due to  $\text{LC}_{50} 96 \text{ h}$  of  $>1 \text{ mg/L}$  but  $\leq 10 \text{ mg/L}$ .

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

**Acute Ecotoxicity**

Category 2

Toxic to aquatic life

**Chronic Ecotoxicity**

Category 2

Toxic to aquatic life with long lasting effects

Avoid release to the environment. Collect spillage.

*Section continued on the next page*

**832FX-A**
**(PART A)**
**Biodegradability**

Not available

**Bioaccumulation**

Not available

**Section 13: Disposal Information**

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

**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 L and under  
**Limited Quantity**



Sizes greater than 5 L

**UN number:** UN3082

**Shipping Name:**

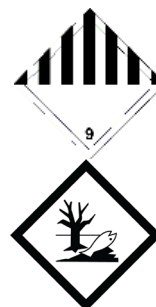
ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S.

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

**Class:** 9

**Packing Group:** III

**Marine Pollutant:** Yes


**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Sizes 5 L and under  
**Limited Quantity**



Sizes greater than 5 L

**UN number:** UN3082

**Shipping Name:**

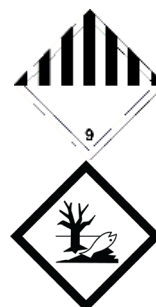
ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S.

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

**Class:** 9

**Packing Group:** III

**Marine Pollutant:** Yes



**Excepted Quantity** E1 ≤30 mL

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(PART A)

## Sea

## Refer to IMDG regulations.

Sizes 5 L and under  
Limited Quantity



Sizes greater than 5 L

**UN number:** UN3082

**Shipping Name:**

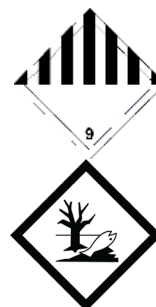
ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S.

(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

## 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.

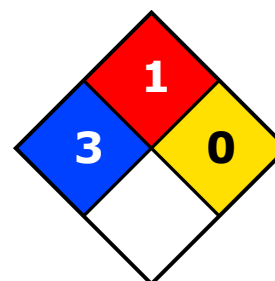
## USA

## Other Classifications

## HMIS® RATING

<b>HEALTH:</b>	<b>*</b>	<b>3</b>
<b>FLAMMABILITY:</b>		<b>1</b>
<b>PHYSICAL HAZARD:</b>		<b>0</b>
<b>PERSONAL PROTECTION:</b>		

## 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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**832FX-A****(PART A)****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, 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.

**Section 16: Other Information**

**SDS Prepared by** MG Chemicals' Regulatory Department

**Date of Review** 10 August 2022

**Supersedes** 28 February 2020

**Reason for Changes:** Minor modifications.

**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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**832FX-A****(PART A)****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](http://www.mgchemicals.com).

Email: [support@mgchemicals.com](mailto:support@mgchemicals.com)

**Mailing Addresses** *Manufacturing & Support*  
1210 Corporate Drive  
Burlington, Ontario, Canada  
L7L 5R6

**Disclaimer** This safety data sheet is provided as an information resource only. *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.

832FX-B

(PART B)

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Identifier:** 832FX-B**Other Means of Identification:** Black Flexible Epoxy Encapsulating and Potting Compound (Part B)**Related Part #** 832FX-450ML, 832FX-1.7L, 832FX-7.4L, 832FX-40L

### Recommended Use and Restriction on Use

**Use:** Epoxy hardener for use with resins**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](mailto:support@mgchemicals.com)  
**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)**☎** +1-905-331-1396  
**FAX** +1-905-331-2682  
**E-MAIL** [info@mgchemicals.com](mailto:info@mgchemicals.com)**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)

### Emergency Phone Number




**For hazardous material incidents ONLY** (leaks, spills, fires, exposures or accidents)  
USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962**  
(Service access code: 335388)**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

**832FX-B**
**(PART B)**
**Section 2: Hazard(s) Identification**
**Classification of the Chemical Material**
**GHS Categories**

Criteria		Category	Signal Word	Pictograms
Serious Eye Damage		1	Danger	Corrosion
Skin Corrosion		1	Danger	Corrosion
Sensitization	Skin sensitizer	1	Warning	Exclamation
Acute Toxicity	Oral	4	Warning	Exclamation
Specific Target Organ Toxicity	Repeated Exposure	2	Warning	Health
Environmental Hazard	Chronic Aqua. Tox.	1	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.


**Label Elements**

<b>Signal Word</b>	<b>DANGER</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H314: Causes severe skin burns and eye damage
	H317: May cause an allergic skin reaction H302: Harmful if swallowed
	H373: May cause damage to liver and immune system through prolonged or repeated exposure

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**832FX-B****(PART B)***Continued...*

<b>Pictograms</b>	<b>Hazard Statements</b>
	H410: Very toxic to aquatic life with long lasting effects
<b>Prevention</b>	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P260	Do not breathe fumes/mist/vapors.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
<b>Response</b>	<b>Precautionary Statements</b>
P314	Get medical advice/attention if you feel unwell.
P305 + P351 + P338, P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P303 + P361 + P353, P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor
P363	Wash contaminated clothing before reuse.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P301 + P330 + P331, P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
P304 + P340, P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P391	Collect spillage.

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**832FX-B**
**(PART B)**
*Continued...*

<b>Storage</b>	<b>Precautionary Statements</b>
P405	Store locked up.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents/container in accordance to local/regional/international regulations.

**Hazards Not Otherwise Classified**

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
None	None	None	None

**Section 3: Composition/Information on Ingredients**

<b>CAS #</b>	<b>Chemical Name</b>	<b>%(weight)</b>
9046-10-0	polyoxypropylene diamine	59%
61788-44-1	phenol, styrenated	20%
61788-46-3	amines, coco alkyl	9%
25620-58-0	trimethylhexamethylenediamine	9%
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	2%

**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
<b>IF IN EYES</b>	P305 + P351 + P338, P310
<b>Immediate Symptoms</b>	redness, severe irritation, pain, burns
<b>Response</b>	Rinse cautiously with water for 30 minutes or more. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

*Section continued on the next page*

**832FX-B****(PART B)**

<b>IF ON SKIN (or hair)</b>	P303 + P361+ P353, P310, P363, P333 + P313
<b>Immediate or Delayed Symptoms</b>	<i>redness, irritation, rash (allergic contact dermatitis), pain, chemical burns, blistering</i>
<b>Response</b>	Take off immediately all contaminated clothing. Wash with plenty of water [shower]. Immediately call a POISON CENTRE/doctor. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
<b>IF SWALLOWED</b>	P301 + P330 + P331, P310
<b>Immediate Symptoms</b>	<i>irritation, abdominal pain, nausea, vomiting, burns to the digestive tract</i>
<b>Response</b>	Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER/doctor.
<b>IF INHALED</b>	P304 + P340, P310
<b>Immediate Symptoms</b>	<i>cough, irritation of the respiratory track, burning sensation</i>
<b>Delayed Symptoms</b>	<i>asthma, difficulty breathing</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

**Advice to Physicians**

In case of exposure to nitrogen oxides (NO<sub>x</sub>) combustion products during a fire, the symptoms may be delayed. For significant exposures, the exposed person should be kept under medical surveillance for 48 hours.

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**(PART B)****Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
<b>Specific Hazards</b>	Not flammable or combustible, but burns if involved in a fire. Produces irritating and toxic fumes in fires or in contact with hot surfaces.  Toxic for aquatic environment: Prevent fire-fighting wash from entering waterway or sewer system.
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> ) and nitrogen oxides (NO <sub>x</sub> ).
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**Section 6: Accidental Release Measures**

<b>Personal Protection</b>	Use personal protection recommended in Section 8.
<b>Precautions for Response</b>	Do not breathe fumes/mist/vapors.
<b>Environmental Precautions</b>	Avoid releasing to the environment. Prevent spill from entering drains and waterways. Do not flush to sewer.
<b>Containment Methods</b>	Contain with inert absorbent (such as soil, sand, vermiculite).
<b>Cleaning Methods</b>	Collect liquid in a sealable container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wipe residue with a paper towel wetted with a suitable organic solvent such as alcohol or ethyl lactate, and place dirty towels in container. Wash spill area with soap and water to remove the last traces of residue.
<b>Disposal Methods</b>	Dispose spill waste according to Section 13.

**832FX-B****(PART B)****Section 7: Handling and Storage****Prevention**

Keep out of reach of children.  
Do not breathe fumes/mist/vapors.  
Contaminated work clothing should not be allowed out of the workplace.  
Do not eat, drink, or smoke when using this product.  
Avoid release to the environment.

**Handling**

Wear protective gloves/protective clothing/eye protection/face protection.  
Wash contaminated clothing before reuse.  
Wash hands thoroughly after handling.  
Collect spillage.

**Storage**

Store locked up.

**Section 8: Exposure Controls/Personal Protection****Substances with Occupational Exposure Limit Values**

This product contains no substances with occupational exposure limits.

**Engineering Controls****Ventilation**

Keep airborne concentrations below the occupational exposure limits (OEL).

Due to low vapor pressure of the product, general ventilation should be adequate for normal use. If the product is heated at high temperatures or worker is allergic, use local ventilation and consider using a full mask with organic vapor cartridges.

*Section continued on the next page*

**832FX-B****(PART B)****Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

**RECOMMENDATION:** Use safety glasses with lateral protection (side shields).

**Skin Protection**

For likely contacts, use of protective butyl rubber, neoprene, 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.

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 your respirator has a NIOSH (U.S.) approved 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. 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.

**832FX-B****(PART B)****Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Lower Flammability Limit</b>	Not available
<b>Appearance</b>	Clear, amber	<b>Upper Flammability Limit</b>	Not available
<b>Odor</b>	Ammonia-like	<b>Vapor Pressure @20 °C<sup>b)</sup></b>	0.02 hPa [0.02 mmHg]
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	Not available
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	0.98
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Slightly soluble
<b>Initial Boiling Point<sup>a)</sup></b>	>230 °C [>446 °F]	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point<sup>b)</sup></b>	>104 °C [>219 °F]	<b>Auto-ignition Temperature</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Not available	<b>Viscosity @25 °C</b>	165 cP

a) Component with the lowest closed cup value—2,4,6-tris(dimethylaminomethyl)phenol

b) Literature value for trimethylhexamethylenediamine

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	Reacts exothermically with epoxides.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Avoid excessive heat and incompatible substances. Do not use in a way that forms a mist or aerosolize the product.
<b>Incompatibilities</b>	Strong oxidizing agents, strong acids
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

**832FX-B****(PART B)****Section 11: Toxicological Information****Summary of Effects and Symptoms by Routes of Exposure**

<b>Eyes</b>	May cause redness, severe eye irritation, pain, or burns.
<b>Skin</b>	May cause redness, serious skin irritation, allergic contact dermatitis, pain, chemical burns, or blistering.
<b>Inhalation</b>	Inhalation of vapors or mist may cause irritation to the nose, throat and lung (upper respiratory tract).
<b>Ingestion</b>	May cause irritation, abdominal pain, nausea, vomiting, burns to the digestive tract. May cause allergic reactions (see inhalation symptoms).
<b>Chronic</b>	Prolonged and repeated exposure to uncured epoxy hardener may lead to skin sensitization.

**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
polyoxypropylene diamine	480 mg/kg <sup>a)</sup> Rat	2 090 mg/kg <sup>a)</sup> Rabbit	Not established
phenol, styrenated	3 700 mg/kg Rat <sup>a)</sup>	>5 010 mg/kg Rabbit <sup>a)</sup>	>4.9 mg/L (mist) Rat <sup>a)</sup>
amines, coco alkyl	1 300 mg/kg Rat <sup>a)</sup>	>2 000 mg/kg Rat <sup>a)</sup>	Not available
trimethylhexamethylenediamine	Not available	Not available	Not available
2,4,6-tris(dimethylaminomethyl) phenol	Not available	Not available	Not available

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA were consulted. The data from supplier SDS were also consulted.

a) Supplier MSDS

*Section continued on the next page*



**832FX-B****(PART B)****Other Toxicological Effects**

<b>Skin corrosion/irritation</b>	The hardener system causes skin burns.
<b>Serious eye damage/irritation</b>	The hardener system causes severe eye damage.
<b>Respiratory and skin sensitization</b> (allergic reactions)	Trimethylhexamethylenediamine and 2,4,6-tris(dimethylaminomethyl)phenol may cause skin sensitization according to animal studies.
<b>Carcinogenicity</b> (risk of cancer)	None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.
<b>Mutagenicity</b> (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b> (risk to sex functions)	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Long term or repeated exposure to "amines, coco alkyl" are believed to lead to liver damage and immune system deficiencies.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. Contains <10% category 1 components, and the kinematic viscosity is >20.5 mm <sup>2</sup> /s at 40 °C.

**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.

The coco alkyl amines is classified as a chronic category 1 environmental toxicant with an M-factor of 10.

The phenol, styrenated compound is classified as chronic category 2 environmental toxicants.

The trimethylhexamethylenediamine and 2,4,6-tris(dimethylaminomethyl)phenol compounds are classified as chronic category 3 environmental toxicants.

*Section continued on the next page*

**832FX-B****(PART B)****Acute Ecotoxicity**

Category 1

Very toxic to aquatic life

**Chronic Ecotoxicity**

Category 1

Very toxic to aquatic life with long lasting effects

Avoid release to the environment. Collect spillage.

**Biodegradability**

Not readily biodegradable

**Bioaccumulation**

Not available

**Other Effects**

Not available

**Section 13: Disposal Information**

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

**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 1 L and under  
**Limited Quantity**



Sizes greater than 1 L

**UN number:** UN2735

**Shipping Name:** AMINES, LIQUID,  
CORROSIVE, N.O.S.

(trimethylhexamethylenediamines,  
polyoxypropylene diamine)

**Class:** 8

**Packing Group:** II

**Marine Pollutant:** Yes



*Section continued on the next page*

**832FX-B**
**(PART B)**
**Air**
**Refer to ICAO-IATA Dangerous Goods Regulations.**

Sizes 0.5 L and under  
**Limited Quantity**



**Excepted  
Quantity**

**E2 ≤30 mL**

Sizes greater than 0.5 L up to 1 L

**UN number:** UN2735

**Shipping Name:** AMINES, LIQUID,  
CORROSIVE, N.O.S.

(trimethylhexamethylenediamines,  
polyoxypropylene diamine)

**Class:** 8

**Packing Group:** II

**Marine Pollutant:** Yes


**Sea**
**Refer to IMDG regulations.**

Sizes 1 L and under  
**Limited Quantity**



Sizes greater than 1 L

**UN number:** UN2735

**Shipping Name:** AMINES, LIQUID,  
CORROSIVE, N.O.S.

(trimethylhexamethylenediamines,  
polyoxypropylene diamine)

**Class:** 8

**Packing Group:** II

**Marine Pollutant:** Yes



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

**832FX-B****(PART B)****Section 15: Regulatory Information****Canada****Domestic Substance List (DSL)/Non-Domestic Substance Lists (NDSL)**

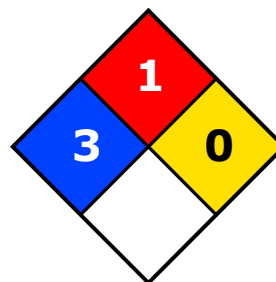
All hazardous ingredients are listed on the DSL/NDSL.

**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.

**USA****Other Classifications****HMIS<sup>®</sup> RATING**

<b>HEALTH:</b>	<b>* 3</b>
<b>FLAMMABILITY:</b>	<b>1</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<b>PERSONAL PROTECTION:</b>	

**NFPA<sup>®</sup> 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 that 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, USA).

This product does not contain any listed substances in California.

*Section continued on the next page*

**832FX-B****(PART B)****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.

**Section 16: Other Information**

**SDS Prepared by** MG Chemicals' Regulatory Department

**Date of Revision** 10 August 2022

**Supersedes** 28 February 2020

**Reason for Changes:** Minor modifications.

**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®)

**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

*Section continued on the next page*

**832FX-B****(PART B)**

**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](http://www.mgchemicals.com).

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