832WC-B **(PART B)**

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Identifier: 832WC-B

Other Means of Identification: Optically Clear Epoxy

Related Part # 832WC-375ML, 832WC-3L, 832WC-12L, 832WC-60L

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
WEB www.mgchemicals.com

MG Chemicals (Head Office)
9347-193 Street
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 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

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		1B	Danger	Corrosion
Sensitization	Skin	1A	Warning	Exclamation
Acute Toxicity	Oral	4	Warning	Exclamation
Hazardous to Aquatic Environment	Chronic	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	**DANGER**
Pictograms	**Hazard Statements**
	H314: Causes severe skin burns and eye damage
	H317: May cause an allergic skin reaction H302: Harmful if swallowed
	H411: Toxic to aquatic life with long lasting effects

Section continued on the next page

Continued…

Prevention	Precautionary Statements
P102	Keep out of reach of children.
P260	Do not breathe fumes or vapors.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
Response	**Precautionary Statements**
P310	For all routes of exposure: Immediately call a POISON CENTER or doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P352	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of water [or shower].
P333 + P313	If skin irritation or rash occurs: Get medical advice or attention.
P363	Wash contaminated clothing before reuse.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P391	Collect spillage.
Storage	**Precautionary Statements**
P405	Store locked up.
Disposal	**Precautionary Statements**
P501	Dispose of contents in accordance to local, regional, national, and international regulations.

Section continued on the next page

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
None	None	Not applicable	Not applicable

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
100-51-6	benzyl alcohol	43%
68609-08-5	cyclohexanemethanamine	32%
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	24%

Section 4: First-Aid Measures

Exposure Condition	*GHS Code: Precautionary Statement*
IF IN EYES	P305 + P351 + P338, P310
Immediate Symptoms	*redness, severe irritation, pain, burns, loss of vision*
Response	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 or doctor.
IF ON SKIN (or hair)	P303 + P361+ P353, P310, P333 + P313, P363
Immediate Symptoms	*redness, irritation, rash (allergic contact dermatitis), pain, chemical burns, blistering*
Response	Take off immediately all contaminated clothing. Wash with plenty of water or shower. Immediately call a POISON CENTRE or doctor. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse.

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IF INHALED	P304 + P340, P310
Immediate Symptoms	*cough, irritation of the respiratory track, burning sensation*
Response	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
IF SWALLOWED	P301 + P330 + P331, P310
Immediate Symptoms	*irritation, abdominal pain, nausea, vomiting, burns to the digestive tract*
Response	Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor.

Advice to Physicians

In case of exposure to nitrogen oxides (NOx) combustion products vapors during a fire, the symptoms may be delayed. For significant exposures, the exposed person should be kept under medical surveillance for 48 hours.

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 and toxic fumes in fires or in contact with hot surfaces. Inhalation of toxic smoke during fire may have delayed effects. Exposed person may need to be put under surveillance for 48 h. Toxic for aquatic environment: Prevent fire-fighting wash from entering waterway or sewer system.
Combustion Products	Produces carbon oxides (CO, CO_2) and nitrogen oxides (NO_x).
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	Use personal protection recommended in Section 8.
Precautions for Response	Do not breathe the fumes or vapors.
Environmental Precautions	Avoid releasing to the environment. Prevent spill from entering drains and waterways. Do not flush to sewer.
Containment Methods	Contain with inert absorbent (such as soil, sand, vermiculite).
Cleaning Methods	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.
Disposal Methods	Dispose spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Keep out of reach of children. Do not breathe fumes or vapors. Avoid contact with skin or eyes. 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, and face protection. Take off contaminated clothing and wash it 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

Chemical Name	Country or Vendor	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
benzyl alcohol	ACGIH	Not established	Not established
	U.S.A. OSHA PEL	Not established	Not established
	U.S.A (WEEL)	10 ppm	Not established
	Canada AB	Not established	Not established
	Canada BC	Not established	Not established
	Canada ON	Not established	Not established
	Canada QC	Not established	Not established

Note: The ACGIH[1], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS[2] 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.

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, small scale 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.

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.

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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 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

Physical State	Liquid	**Lower Flammability Limit**	Not available
Appearance	Clear	**Upper Flammability Limit**	Not available
Odor	Ammoniacal	**Vapor Pressure @20 °C**	0.002 kPa [<0.02 mmHg]
Odor Threshold	Not available	**Vapor Density**	>5 (Air = 1)
pH	Not available	**Relative Density @25 °C**	1.03
Freezing/Melting Point	Not available	**Solubility in Water**	Slightly soluble
Initial Boiling Point	247 °C [477 °F]	**Partition Coefficient n-octanol/water**	Not available
Flash Point [a)]	>112 °C [>234 °F]	**Auto-ignition Temperature**	Not available
Evaporation Rate	Not available	**Decomposition Temperature**	Not available
Flammability	Non flammable	**Viscosity @25 °C**	>300 mm^2/s

a) literature closed cup value

Section 10: Stability and Reactivity

Reactivity	Reacts exothermically with ketones, halogenated hydrocarbons, cyanides, nitriles, and epoxides. May attack metals such as aluminum, zinc, copper, and their alloys. May form explosive peroxides
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Avoid excessive heat and incompatible substances. Do not use in a way that forms a mist or aerosolize the product.
Incompatibilities	Strong oxidizing agents, strong acids
Polymerization	Will not occur
Decomposition	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

Eyes	May cause redness, severe eye irritation, pain, burns and/or loss of vision.
Skin	May cause redness, serious skin irritation, allergic contact dermatitis, pain, blistering and/or chemical burns.
Inhalation	Inhalation of vapors or mist may cause cough, burning sensation and/or irritation to the nose, throat and lung (upper respiratory tract).
Ingestion	May cause severe irritation, abdominal pain, nausea, vomiting and/or corrosive burns to the mouth, throat, esophagus, and stomach. May cause allergic reactions. (See inhalation symptoms.)
Chronic	Prolonged and repeated exposure to uncured epoxy hardener may lead to skin sensitization.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
benzyl alcohol	1 620 mg/kg Rat	Not available	4.2 mg/L 4 h Rat
cyclohexanemethanamine	Not available	Not available	Not available
3-aminomethyl-3,5,5-trimethylcyclohexylamine	1 030 mg/kg Rat	>2 000 mg/kg Rabbit	>5.01 mg/L 4 h Rat

Note: Toxicity data from the RTECS[2] and ECHA were consulted. The data from supplier SDS were also consulted.

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Other Toxicological Effects

Skin corrosion/irritation	Cyclohexanemethanamine and 3-aminomethyl-3,5,5-trimethylcyclohexylamine causes skin burns.
Serious eye damage/irritation	Cyclohexanemethanamine and 3-aminomethyl-3,5,5-trimethylcyclohexylamine causes serious eye damage.
Respiratory and skin sensitization (allergic reactions)	The epoxy hardener components (cyclohexanemethanamine and 3-aminomethyl-3,5,5-trimethylcyclohexylamine) may cause skin sensitization.
Carcinogenicity (risk of cancer)	None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.
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.

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.

Cyclohexanemethanamine is classified as a chronic category 2 environmental toxicant LC50 range of 1—10 mg/L for fish; EC0 bacterial >10 and ≤100 mg/L.

3-aminomethyl-3,5,5-trimethylcyclohexylamine is classified as an acute category 3 environmental toxicant.

Based on available data, benzyl alcohol is not classified as aquatic environmental toxicant according to GHS criteria.

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Acute Ecotoxicity

Available toxicity data does not meet classification thresholds.

Chronic Ecotoxicity

Category 2

Toxic to aquatic life with long lasting effect

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
Part B of 832WC-375ML, 832WC-3L kits
Limited Quantity
Note: The 832WC-375ML and 832WC-3L kits are composed of separate containers which meet this inner packaging limit.

Sizes greater than 1 L (Cargo only)
Part B of 832WC-12L, 832WC-60L kits

UN number: UN2735
Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. * (cyclohexanemethanamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
Class: 8
Packing Group: II
Marine Pollutant: Yes

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 0.5 L and under

Part B of 832WC-375ML kit
Limited Quantity

Sizes greater than 0.5 L up to 1 L (Passenger), 5 L (Cargo)
Part B of 832WC-3L kit
UN number: UN2735
Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. * (cyclohexanemethanamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
Class: 8
Packing Group: II
Marine Pollutant: Yes

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Sea

Refer to IMDG regulations.	
Sizes 1 L and under *Part B of 832WC-375ML, 832WC-3L kits* **Limited Quantity** Note: The 832WC-375ML and 832WC-3L kits are composed of separate containers which meet this inner packaging limit. 	Sizes greater than 1 L *Part B of 832WC-12L, 832WC-60L kits* **UN number**: UN2735 **Shipping Name:** AMINES, LIQUID, CORROSIVE, N.O.S. * (cyclohexanemethanamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine) **Class:** 8 **Packing Group**: II **Marine Pollutant:** Yes 

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/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.

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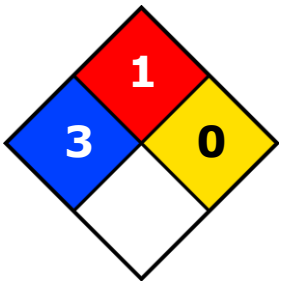
USA

Other Classifications

HMIS® RATING

HEALTH:	* 3
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 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.

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	02 March 2020
Supersedes	07 February 2020
Reason for Changes:	Update to the emergency phone number information.

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

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832WC-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.

Email: support@mgchemicals.com

Mailing Addresses

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

Head Office
9347–193rd Street
Surrey, British Columbia, Canada
V4N 4E7

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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.