

according to WHMIS 2023 and HCS 2024

Date of issue 06/18/2025 Version number 4.01 Revision: 04/22/2025

1 Identification

- · Product identifier
 - · Trade name: 8320
 - · Other Means of Identification: Epoxy hardener (Part B)
 - · Related Part Number:

8320-Part B, 832HT-B, 832B-B, 832C-B, 8320-125ML, 8320-150ML, 8320-1L, 8320-12L, 8320-20L, 832B-375ML (B), 832B-450ML (B), 832B-3L (B), 832B-12L (B), 832B-60L (B), 832C-375ML (B), 832C-450ML (B), 832C-3L (B), 832C-60L (B), 832HT-375ML (B), 832HT-3L (Kit)

- Application of the substance / the mixture Epoxy Hardener
- · Uses advised against Not for use as a spray coating
- · Details of the supplier of the safety data sheet

Manufacturer/Supplier:

MG Chemicals (Head Office) 1210 Corporate Drive Burlington, Ontario L7L 5R6 CANADA +(1) 800-340-0772 +(1) 905-331-1396

info@mgchemicals.com

Distributor:

Masline 511 Clinton Ave S Rochester, New York 14620 United States +(1) 586-546-5373

· Information department: sds@mgchemicals.com

· Emergency telephone 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

2 Hazard identification

· Classification of the substance or mixture

Skin Corrosion - Category 1B H314 Causes severe skin burns and eye damage.

Eye damage/irritation - Category 1 H318 Causes serious eye damage.

Sensitization - skin - Category 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms







GHS05

GHS07

- Signal word Danger
- · Hazard-determining components of labeling:

fatty acids, C18-unsatd., dimers, reactionproducts with polyethylenepolyamines triethylenetetramine

· Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children. P261 Avoid breathing fumes and vapors. P280 Wear protective gloves / eye protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor.

P501

Dispose of contents and container in accordance with local, regional, and national

regulations.

· Other hazards Not available

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
 - Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
68410-23-1	fatty acids, C18-unsatd., dimers, reactionproducts with polyethylenepolyamines	92.0% w/w
112-24-3	triethylenetetramine	8.0% w/w

4 First-aid measures

- Description of first aid measures
 - · General information: Immediately remove any clothing soiled by the product.
 - · After inhalation:

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

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· After skin contact:

Take off immediately all contaminated clothing. Wash with plenty of water or shower.

Immediately call a POISON CENTRE or doctor.

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice or attention.

· After eye contact:

Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

· After swallowing:

Rinse mouth. Do not induce vomiting.

Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed

In case of exposure to nitrogen oxides (NOx) combustion products or triethylenetetramine vapors during a fire, the symptoms may be delayed.

For significant exposures, the exposed person should be kept under medical surveillance for 48 hours.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents: Use fire fighting measures that suit the environment.

· Special hazards arising from the substance or mixture

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.

Inhalation of toxic smoke during fire may have delayed effects. Exposed person may need to be put under surveillance for 48 h.

· Hazardous combustion products:

Carbon Oxides (COx)

Nitrogen Oxides (NOx)

· Advice for firefighters

· Protective equipment: Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Do not breathe fumes, mist or vapors.

Remove or keep away all sources of extreme heat or open flames.

· Environmental precautions:

Avoid release to the environment.

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Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Collect liquid in a sealable, chemical-resistant container.

Wash residue with a paper towel and place dirty towels in container.

Use soap and water to remove the last traces of residue.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Precautions for safe handling

Prevent formation of aerosols.

Wear protective gloves and eye protection.

Wash hands and exposed skin thoroughly after handling.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Contaminated work clothing should not be allowed out of the workplace.

Do not eat, drink, or smoke when using this product.

Avoid contact with skin and eyes.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
 - Storage:
 - · Requirements to be met by storerooms and receptacles:

Keep in a dry and clean area, away from incompatible substances

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store locked up.

· Specific end use(s) See section 1.2

8 Exposure controls/ Personal protection

· Control parameters

· Compon	· Components with limit values that require monitoring at the workplace:			
112-24-3 triet	112-24-3 triethylenetetramine			
EV (Canada)	TWA: 3 mg/m³, 0.5 ppm Skin			
WEEL (USA)	TWA: 6 mg/m³, 1 ppm Skin			

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· Additional information:

The lists that were valid during the creation were used as basis.

Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· Exposure controls

- · Appropriate engineering controls No further data; see section 7.
- · Personal protective equipment:
 - General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

Advice should be sought from respiratory protection specialists.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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.

· Protection of hands:

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves: EN374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses or tightly sealed goggles: EN 166

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Physical state Liquid

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Form: Highly viscous
Color: Amber colored
Odor: musty & ammonia-like

· Odor threshold:

· Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:
 Flammability:
 Explosion limits:
 Undetermined.
 Non flammable

· Lower:Not applicable· Upper:Not applicable· Flash point: $122 \, ^{\circ}\mathbb{C} \, (251.6 \, ^{\circ}\mathbb{F})$

Auto igniting:
 Decomposition temperature:
 pH-value:
 Not determined.
 Not determined.

· Viscosity: · Kinematic at 20 °C (68 °F):

Kinematic at 20 °C (68 °F):
 Dynamic:
 Solubility in / Miscibility with
 6,000 mm²/s
 Not determined.

· Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Vapor pressure at 20 °C (68 °F): >0 hPa · Relative density at 25 °C (77 °F): 0.96 · Vapor density (air=1): >5

• Particle characteristics Not applicable.

Other information

Important information on protection of health and environment, and on safety.

• Ignition temperature: Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard. • Solvent content:

Organic solvents: Not availableEvaporation rate Not determined.

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.

- · Chemical stability Chemically stable at normal temperatures and pressures.
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.

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· Incompatible materials:

Strong oxidizing agents Strong acids

· Hazardous decomposition products:

No dangerous decomposition products known. Hazardous combustion products: see section 5.

11 Toxicological information

- Information on toxicological effects
 - · Acute toxicity:

· LD/LC50 values that are relevant for classification:		
,	ATE (Acute Toxicity Estimate)	
Dermal LD	50 10,063 mg/kg (rabbit)	
112-24-3 triethylenetetramine		

112-24-3 triethylenetetramine

Oral LD50 2,500 mg/kg (rat)
Dermal LD50 805 mg/kg (rabbit)

- Primary irritant effect:
 - · on the skin: Caustic effect on skin and mucous membranes.
 - on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- · Sensitization: Sensitization possible through skin contact.
- Summary of effects and symptoms by route of exposure
 - · Eyes:

eye damage, pain

redness, serious irritation

Skin:

rash, allergic contact dermatitis

redness, irritation

chemical burns

Triethylenetetramine can be absorbed through skin leading to toxic effects.

When heated, hot triethylenetetramine vapors may also result in itching of the face with skin redness (erythema) and swelling (edema).

- Inhalation: irritation of the respiratory tract
- · Swallowed:

May cause pain and corrosive burns to the mouth, throat, esophagus, and stomach.

irritation to the mouth, throat, esophagus, and stomach

allergic reactions

see inhalation symptoms

Delayed and immediate effects as well as chronic effects from short and long-term exposure
 Prolonged or repeated exposure may cause skin allergies.

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· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
 - · Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Avoid release to the environment.

Collect spillage.

112-24-3 triethylenetetramine

EC50/ 48 h 24 mg/L (daphnia) LC50 96h 420 mg/L (guppie) IC50 72h 2 mg/L (algae)

- · Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
 - · PBT: Not applicable.
 - · vPvB: Not applicable.
- · Other adverse effects
 - · Remark: Toxic for fish

13 Disposal considerations

- · Waste treatment methods
 - · Recommendation: This material and its container must be disposed of as hazardous waste.

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- · Uncleaned packagings:
 - Recommendation:

Containers may still present a chemical hazard/ danger when empty.

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

Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Transport information	
· UN-Number	
· DOT/TDG, IMDG, IATA	UN2735
UN proper shipping name	
· DOT/TDG	Amines, liquid, corrosive, n.o.s. (triethylenetetramine, fattacids, C18-unsatd., dimers, reactionproducts with polyethylenepolyamines)
· IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (triethylenetetramine, fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines)
·IATA	Amines, liquid, corrosive, n.o.s. (triethylenetetramine, fatt acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines)
Transport hazard class(es)	
· DOT/TDG (Transport dangerous goods):	
STREAM TO THE PROPERTY OF THE	
· Class · Label	8 Corrosive substances 8
· IMDG, IATA	
Class	8 Corrosive substances
· Label	8

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Packing group

· DOT/TDG, IMDG, IATA

· Environmental hazards:

· Marine pollutant: MARINE POLLUTANT

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· Special marking (IATA):

ENVIRONMENTALLY HAZARDOUS

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:



Limited Quantity

832B-375ML, 832B-450ML, 832B-3L, 832C-375ML, 832C-450ML, 832C-3L, 832HT-375ML, 832HT-3L

· DOT/TDG

· Quantity limitations

On passenger aircraft/rail: 1 L

On cargo aircraft only: 30 L

·IMDG

· Limited quantities (LQ)

1L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

· Special precautions for user

Not applicable.

· Hazard identification number (Kemler code): · EMS Number:

80 F-A,S-B

· Segregation groups

(SGG18) Alkalis

· Stowage Category

A

· Segregation Code

SG35 Stow "separated from" SGG1-acids

· UN "Model Regulation":

UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S.

(TRIETHYLENETETRAMINE, FATTY ACIDS, C18-UNSATD.,

DIMERS, REACTION PRODUCTS WITH POLYETHYLENEPOLYAMINES), 8, II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
 - · OSHA Hazard Communication Standard (29 CFR Part 1900)

The safety data sheet and label comply with HCS 2024.

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

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2023.

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

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· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

112-24-3 triethylenetetramine

· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

· HMIS-ratings (scale 0 - 4)

Health = *3

Fire = 1

Reactivity = 0

· 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.

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· 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.

· Per- and polyfluoroalkyl substances (PFAS)

None of the ingredients is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Regulatory department
- · Contact: sds@mgchemicals.com
- · Version number of previous version: 4.00
- · Date of preparation 06/18/2025
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINEGS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

* Data compared to the previous version altered.