

# Safety Data Sheet

according to WHMIS 2023 and HCS 2024

## 1 Identification

### Product identifier

#### Trade name: 8820-B

Other Means of Identification: High Temperature Rigid Urethane

Related Part Number: 8820-Part B, 8820-375ML (B), 8820-2.55L (B), 8820-10.8L (B), 8820-60L (B)

Application of the substance / the mixture Urethane hardener for use with resins

Uses advised against For industrial use only

### 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 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

Acute Toxicity (Inhalation) - Category 4

H332 Harmful if inhaled.

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye damage/irritation – Category 2A

H319 Causes serious eye irritation.

Sensitization - respiratory – Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Sensitization - skin – Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity (single exposure) – Category 3

H335 May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) – Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)

**Safety Data Sheet**  
**according to WHMIS 2023 and HCS 2024**

**Trade name: 8820-B**

(Contd. of page 1)

· **Label elements**

· **GHS label elements**

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomeres and homologues  
 4,4'-methylenediphenyl diisocyanate  
 o-(p-isocyanatobenzyl)phenyl isocyanate  
 2,2'-methylenediphenyl diisocyanate

· **Hazard statements**

H332 Harmful if inhaled.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H317 May cause an allergic skin reaction.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P102 Keep out of reach of children.  
 P260 Do not breathe mist, vapors, or spray.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.

· **Other hazards** Not available

**3 Composition/Information on ingredients**

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	58.0% w/w
101-68-8	4,4'-methylenediphenyl diisocyanate	38.0% w/w
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate	4.0% w/w

(Contd. on page 3)

# Safety Data Sheet

according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

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**Trade name: 8820-B**

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2536-05-2	2,2'-methylenediphenyl diisocyanate	(Contd. of page 2)
		0.2% w/w

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## 4 First-aid measures

- **Description of first aid measures**

- **General information:**

- Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

- Remove person to fresh air and keep comfortable for breathing.

- If feeling unwell: Call a POISON CENTRE or doctor.

- If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

- **After skin contact:**

- Wash with plenty water.

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

- Take off contaminated clothing and wash it before reuse.

- **After eye contact:**

- Rinse cautiously with water for 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- If eye irritation persists: Get medical advice or attention.

- **After swallowing:**

- Rinse mouth.

- Do NOT induce vomiting.

- If symptoms persist consult doctor.

- **Information for doctor:** Treat symptomatically

- **Most important symptoms and effects, both acute and delayed**

- See section 11 for additional information.

- **Indication of any immediate medical attention and special treatment needed**

- No further relevant information available.

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## 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**

- During heating or in case of fire poisonous gases are produced.

- 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.

- **Hazardous combustion products:**

- Carbon Oxides (COx)

- cyanates

- other toxic fumes

(Contd. on page 4)

# Safety Data Sheet

according to WHMIS 2023 and HCS 2024

Trade name: 8820-B

(Contd. of page 3)

- **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**
  - Ensure adequate ventilation
  - Remove or keep away all sources of extreme heat or open flames.
  - Avoid breathing mist, spray, or vapors.
- **Environmental precautions:** 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**
  - Ensure good ventilation/exhaustion at the workplace.
  - Wear protective gloves and eye protection.
  - Wash hands and exposed skin thoroughly after handling.
  - Take off contaminated clothing and wash it before reuse.
  - Contaminated work clothing should not be allowed out of the workplace.
  - Use only outdoors or in a well-ventilated area.
  - Do not breathe mist, vapours, spray.
  - In case of inadequate ventilation wear respiratory protection.
  - Keep out of reach of children.
  - **Information about protection against explosions and fires:**
    - Keep respiratory protective device available.
- **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.

(Contd. on page 5)

**Safety Data Sheet**  
according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

Trade name: 8820-B

(Contd. of page 4)

· **Specific end use(s)** See section 1.2

## 8 Exposure controls/ Personal protection

· **Control parameters**

· <b>Components with limit values that require monitoring at the workplace:</b>	
<b>9016-87-9 diphenylmethanediisocyanate, isomers and homologues</b>	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm
<b>101-68-8 4,4'-methylenediphenyl diisocyanate</b>	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm S(R)
EV (Canada)	TWA: 0.005 ppm Ceiling: 0.02 ppm
PEL (USA)	Ceiling: 0.2 mg/m <sup>3</sup> , 0.02 ppm
REL (USA)	TWA: 0.05 mg/m <sup>3</sup> , 0.005 ppm Ceiling: 0.2* mg/m <sup>3</sup> , 0.02* ppm *10-min
TLV (USA)	TWA: 0.051 mg/m <sup>3</sup> , 0.005 ppm
<b>5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate</b>	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm
<b>2536-05-2 2,2'-methylenediphenyl diisocyanate</b>	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm

· **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** Keep airborne concentrations below exposure limits.

· **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.  
Store protective clothing separately.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.

· **Breathing equipment:**

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.  
Advice should be sought from respiratory protection specialists.

(Contd. on page 6)

**Safety Data Sheet**  
 according to WHMIS 2023 and HCS 2024

**Trade name: 8820-B**

(Contd. of page 5)

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**

· <b>Physical state</b>	Liquid
· <b>Form:</b>	Viscous
· <b>Color:</b>	Brown
· <b>Odor:</b>	Musty
· <b>Odor threshold:</b>	Not determined.
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	208 °C (406.4 °F)
· <b>Flammability:</b>	Non flammable
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not applicable
· <b>Upper:</b>	Not applicable
· <b>Flash point:</b>	198 °C (388.4 °F)
· <b>Auto igniting:</b>	400 °C (752 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH-value:</b>	Not determined.

(Contd. on page 7)

# Safety Data Sheet

according to WHMIS 2023 and HCS 2024

Trade name: 8820-B

(Contd. of page 6)

<ul style="list-style-type: none"><li>· <b>Viscosity:</b><ul style="list-style-type: none"><li>· Kinematic at 25 °C (77 °F): 216 cP</li><li>· Dynamic: Not determined.</li></ul></li><li>· <b>Solubility in / Miscibility with</b><ul style="list-style-type: none"><li>· Water: Insoluble.</li></ul></li><li>· <b>Partition coefficient (n-octanol/water):</b> Not determined.</li><li>· <b>Vapor pressure at 40 °C (104 °F):</b> 0 hPa</li><li>· <b>Relative density:</b> Not determined.</li><li>· <b>Vapor density (air=1):</b> Not determined.</li><li>· <b>Particle characteristics</b> Not applicable</li></ul>
<ul style="list-style-type: none"><li>· <b>Other information</b><ul style="list-style-type: none"><li>· <b>Important information on protection of health and environment, and on safety.</b><ul style="list-style-type: none"><li>· <b>Ignition temperature:</b> Product is not selfigniting.</li><li>· <b>Danger of explosion:</b> Product does not present an explosion hazard.</li><li>· <b>Organic solvents:</b> Not available</li><li>· <b>VOC content:</b> 0.000 %</li><li>· <b>Solids content:</b> 96.2 %</li><li>· <b>Evaporation rate</b> Not determined.</li></ul></li></ul></li></ul>

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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**  
Direct sunlight  
Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.
- **Incompatible materials:**  
Amines  
Strong bases  
Water  
Alcohol
- **Hazardous decomposition products:**  
No dangerous decomposition products known.  
Hazardous combustion products: see section 5.

**Safety Data Sheet**  
according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

Trade name: 8820-B

(Contd. of page 7)

## 11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)		
Inhalative	LC50/4 h	1.5 mg/L
9016-87-9 diphenylmethanediisocyanate, isomers and homologues		
Inhalative	LC50/4 h	1.5 mg/L (ATE)
101-68-8 4,4'-methylenediphenyl diisocyanate		
Oral	LD50	2,200 mg/kg (mouse)
Inhalative	LC50/4 h	1.5 mg/L (ATE)
5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate		
Inhalative	LC50/4 h	1.5 mg/L (ATE)
2536-05-2 2,2'-methylenediphenyl diisocyanate		
Inhalative	LC50/4 h	1.5 mg/L (ATE)

· Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.

· Sensitization:

- Sensitization possible through inhalation.
- Sensitization possible through skin contact.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure** May cause respiratory irritation.
- **Specific target organ toxicity - repeated exposure**  
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

· Summary of effects and symptoms by route of exposure

· Eyes:

- redness, serious irritation
- pain

· Skin:

- dry skin
- rash, allergic contact dermatitis
- redness, irritation

· Inhalation:

- irritation of the respiratory tract
- wheezing, shortness of breath, difficulty breathing
- mist or vapours may cause breathlessness, chest discomfort, and reduced pulmonary function

· Swallowed: Low toxicity:

(Contd. on page 9)

**Safety Data Sheet**  
 according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

Trade name: 8820-B

(Contd. of page 8)

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

· **Additional toxicological information:**

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

Harmful  
 Irritant

· **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
101-68-8	4,4'-methylenediphenyl diisocyanate	3
· <b>NTP (National Toxicology Program)</b>		
None of the ingredients is listed.		

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **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** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** This material and its container must be disposed of as hazardous waste.

· **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.

(Contd. on page 10)

**Safety Data Sheet**  
 according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

Trade name: 8820-B

(Contd. of page 9)

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

· <b>UN-Number</b> · DOT/TDG, IMDG, IATA	not regulated
· <b>UN proper shipping name</b> · DOT/TDG, IMDG, IATA	not regulated
· <b>Transport hazard class(es)</b> · DOT/TDG, ADN, IMDG, IATA · Class	not regulated
· <b>Packing group</b> · DOT/TDG, IMDG, IATA	Not applicable
· <b>Environmental hazards:</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

**\* 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.

· **Section 313 (Specific toxic chemical listings):**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

101-68-8 4,4'-methylenediphenyl diisocyanate

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

(Contd. on page 11)



**Safety Data Sheet**  
according to WHMIS 2023 and HCS 2024

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

Trade name: 8820-B

(Contd. of page 10)

· <b>Hazardous Air Pollutants</b>	
101-68-8	4,4'-methylenediphenyl diisocyanate

· **Proposition 65**

· <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.

· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.

· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.

· <b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.

· **Carcinogenic categories**

· <b>TLV (Threshold Limit Value)</b>
None of the ingredients is listed.

· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.

· **Canadian substance listings:**

· <b>Canadian Domestic Substances List (DSL)</b>
All ingredients are listed.

· <b>Canadian Non-Domestic Substances List (NDSL)</b>
None of the ingredients is listed.

· <b>Canadian Ingredient Disclosure list (limit 0.1%)</b>
101-68-8   4,4'-methylenediphenyl diisocyanate

· <b>Canadian Ingredient Disclosure list (limit 1%)</b>
None of the ingredients is listed.

· **HMIS-ratings (scale 0 - 4)**

Health = \* 2  
Fire = 1  
Reactivity = 1

· **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.

(Contd. on page 12)



**Safety Data Sheet**  
**according to WHMIS 2023 and HCS 2024**

Page 12/12

Date of issue 11/07/2025

Version number 3.02

Revision: 04/15/2025

**Trade name: 8820-B**

(Contd. of page 11)

· **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:** 2.03

· **Date of preparation** 11/07/2025

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

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.**

— CA —