

8820-A

HIGH TEMPERATURE RIGID URETHANE

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** 8820-A**Other Means of Identification:** High Temperature Rigid Urethane**Related Part #** 8820-375ML, 8820-2.55L, 8820-10.8L, 8820-60L

### Recommended Use and Restriction on Use

**Use:** Urethane 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  
CANADAMG Chemicals (Head Office)  
9347-193 Street  
Surrey, British Columbia V4N 4E7  
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)**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)**☎** +1-905-331-1396**Fax** +1-905-331-2682**E-mail** [info@mgchemicals.com](mailto:info@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

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
**Section 2: Hazard(s) Identification**
**Classification of Hazardous Chemical**
**GHS Categories**

| Criteria                             |         | Category | Signal Word | Pictograms  |
|--------------------------------------|---------|----------|-------------|-------------|
| Sensitization                        | Skin    | 1        | Warning     | Exclamation |
| Reproductive Toxicity                |         | 2        | Warning     | Health      |
| Hazardous to the Aquatic Environment | Chronic | 3        | none        | none        |

*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   | Warning   |
|---|---|
| Pictograms  | Hazard Statements   |
|  | H317: May cause an allergic skin irritation               |
|  | H361: Suspected of damaging fertility or the unborn child |
| <i>none mandated</i>  | H412: Harmful to aquatic life with long lasting effects   |

*Section continued on the next page*

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
*Continued...*

| <b>Prevention</b> | <b>Precautionary Statements</b>   |
|-------------------|---|
| P102              | Keep out of reach of children.  |
| P201 + P202       | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. |
| P261              | Avoid breathing mist, vapors, or spray.   |
| P272              | Contaminated work clothing should not be allowed out of the workplace.  |
| P280              | Wear protective gloves, protective clothing, and eye protection or face protection.                               |
| P273              | Avoid release to the environment.   |
| <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 or attention.   |
| P308 + P313       | If exposed or concerned: Get medical advice or attention.   |
| P362 + P364       | Take off contaminated clothing and wash it before reuse.  |
| <b>Storage</b>    | <b>Precautionary Statements</b>   |
| P405              | Store locked up.  |
| <b>Disposal</b>   | <b>Precautionary Statements</b>   |
| P501              | Dispose of contents in accordance to local, regional, national, and international regulations.                    |

**Hazards Not Otherwise Specified**

| <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> |
|--------------|---|------------------|
| 1318-02-1    | zeolite   | 7%               |
| 25068-38-6   | reaction product: bisphenol-A-(epichlorohydrin) | 3%               |
| 1333-86-4    | carbon black                                    | 0.9%             |
| 68609-97-2   | alkyl glycidyl ether                            | 0.7%             |
| 67-56-1      | methanol  | 0.1%             |

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
**Section 4: First-Aid Measures**

| <i>Exposure Condition</i> | <i>GHS Code/Symptoms/Precautionary Statements</i>   |
|---------------------------|---|
| <b>IF ON SKIN</b>         | P302 + P352, P362 + P364  |
| <b>Immediate Symptoms</b> | <i>dry skin, allergic dermatitis, redness</i>   |
| <b>Response</b>           | Wash with plenty of water.<br><br>Take off immediately all contaminated clothing and wash it before reuse.<br><br>If skin irritation or rash occurs: Get medical advice or attention. |
| <b>IF INHALED</b>         | P304 + P340, P308 + P313  |
| <b>Immediate Symptoms</b> | <i>low toxicity</i>   |
| <b>Response</b>           | Remove person to fresh air and keep comfortable for breathing.<br><br>IF exposed or concerned: Get medical advice or attention.   |
| <b>IF IN EYES</b>         | P305 + P351 + P338  |
| <b>Immediate Symptoms</b> | <i>low toxicity: redness, pain, blurred vision</i>  |
| <b>Response</b>           | Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  |
| <b>IF SWALLOWED</b>       | P301 + P330, P331   |
| <b>Immediate Symptoms</b> | <i>low toxicity: abdominal pain, nausea, diarrhea, (see inhalation symptoms)</i>  |
| <b>Response</b>           | Rinse mouth. Do NOT induce vomiting.  |

**Section 5: Fire-Fighting Measures**

|                            |  |
|----------------------------|--|
| <b>Extinguishing Media</b> | Use extinguishing media suitable for surrounding materials.  |
| <b>Specific Hazards</b>    | Not flammable or combustible, but burns if involved in a fire. Produces irritating smoke of unknown toxicity in fires.<br><br>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.  |

**8820-A****HIGH TEMPERATURE RIGID URETHANE****Section 6: Accidental Release Measures**

|                                  |   |
|----------------------------------|---|
| <b>Personal Protection</b>       | See personal protection recommendations in Section 8.   |
| <b>Precautions for Response</b>  | Avoid breathing the mist, spray, or vapors. Remove or keep away all sources of ignition or extreme heat.  |
| <b>Environmental Precautions</b> | Avoid releasing to the environment. Prevent spill from entering drains and waterways.   |
| <b>Containment Methods</b>       | Contain with inert and nonflammable absorbent (such as soil, sand, vermiculite).  |
| <b>Cleaning Methods</b>          | Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with 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.<br>Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.<br>Avoid breathing mist, vapors, or spray.<br>Avoid release to the environment. |
| <b>Handling</b>   | Wear protective gloves, protective clothing, and eye protection or face protection.<br>Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.              |
| <b>Storage</b>    | Store locked up.  |

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
**Section 8: Exposure Controls/Personal Protection**
**Substances with Occupational Exposure Limit Values**

| Chemical Name              | Country/Province   | Long Term Exposure Limits (PEL)  | Short Term Exposure Limits (STEL)  |
|----------------------------|--|--|--|
| zeolite <sup>a)</sup>      | ACGIH<br>U.S.A. OSHA PEL<br>Canada AB<br>Canada BC<br>Canada ON<br>Canada QC               | 10 mg/m <sup>3</sup><br>15 mg/m <sup>3</sup><br>Not established<br>Not established<br>Not established<br>Not established                         | 3 mg/m <sup>3</sup><br>5 mg/m <sup>3</sup><br>Not established<br>Not established<br>Not established<br>Not established |
| carbon black <sup>b)</sup> | ACGIH<br>U.S.A. OSHA PEL<br>Canada AB<br>Canada BC<br>Canada ON<br>Canada QC               | 3.5 mg/m <sup>3</sup><br>3.5 mg/m <sup>3</sup><br>3.5 mg/m <sup>3</sup><br>3 mg/m <sup>3</sup><br>3.5 mg/m <sup>3</sup><br>3.5 mg/m <sup>3</sup> | Not established<br>Not established<br>Not established<br>Not established<br>Not established<br>Not established         |
| methanol                   | ACGIH <sup>c)</sup><br>U.S.A. OSHA PEL<br>Canada AB<br>Canada BC<br>Canada ON<br>Canada QC | 200 ppm<br>200 ppm<br>200 ppm<br>200 ppm (Skin)<br>200 ppm (Skin)<br>200 ppm (Skin)  | 250 ppm<br>Not established<br>250 ppm<br>250 ppm<br>250 ppm<br>250 ppm   |

*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 the RTECS database<sup>2</sup> and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

Skin—can be absorbed through the skin

a) Supplier SDS

b) Respirable airborne particles.

c) TLV Basis: headache; eye dam; dizziness; nausea

**Engineering Controls**
**Ventilation**

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

Because carbon black is bound to the liquid mixture, it does not present an airborne hazard under normal use.

*Section continued on the next page*

**8820-A****HIGH TEMPERATURE RIGID URETHANE****Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

**RECOMMENDATION:** Ensure that glasses have side shields for lateral protection.

**Skin Protection**

For likely contacts, use of protective butyl rubber or other chemically resistant gloves.

For incidental contacts, use nitrile or other chemically resistant gloves.

**Respiratory Protection**

For over-exposures up to 10 x OEL of mist, vapors, or 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.

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
**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>                           | Not available          |
| <b>pH</b>                                  | Not available       | <b>Relative Density @25 °C</b>                 | 1.15                   |
| <b>Freezing/Melting Point</b>              | Not available       | <b>Solubility in Water</b>                     | Insoluble              |
| <b>Initial Boiling Point <sup>a)</sup></b> | 35 °C<br>[95 °F]    | <b>Partition Coefficient n-octanol/water</b>   | Not available          |
| <b>Flash Point <sup>a)</sup></b>           | >100 °C<br>[212 °F] | <b>Auto-ignition Temperature <sup>a)</sup></b> | ≥385 °C<br>[≥725 °F]   |
| <b>Evaporation Rate</b>                    | <1<br>(ButAc = 1)   | <b>Decomposition Temperature</b>               | Not available          |
| <b>Flammability</b>                        | Not applicable      | <b>Viscosity @25 °C</b>                        | 305 mm <sup>2</sup> /s |

a) Values based on the principal component.

**Section 10: Stability and Reactivity**

|                            |   |
|----------------------------|---|
| <b>Reactivity</b>          | Not available   |
| <b>Chemical Stability</b>  | Chemically stable at normal temperatures and pressures.   |
| <b>Conditions to Avoid</b> | Direct sunlight, high temperatures, open flames, sparks and incompatible substances.                              |
| <b>Incompatibilities</b>   | Strong oxidizing agents, strong acids, alkali   |
| <b>Polymerization</b>      | Will not occur  |
| <b>Decomposition</b>       | Product decomposes at 270 °C without melting.<br>For thermal decomposition, see combustion products in Section 5. |

**8820-A**
**HIGH TEMPERATURE RIGID URETHANE**
**Section 11: Toxicological Information**
**Summary of Effects and Symptoms by Routes of Exposure**

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Low toxicity: May cause redness, pain, and blurred vision.                            |
| <b>Skin</b>       | May cause dry skin, redness and allergic dermatitis.                                  |
| <b>Inhalation</b> | Low toxicity  |
| <b>Ingestion</b>  | Low toxicity: May abdominal pain, nausea, and diarrhea. See also inhalation symptoms. |
| <b>Chronic</b>    | Prolonged or repeated exposure may cause skin may cause skin allergies.               |

**Acute Toxicity (Lethal Exposure Concentrations)**

| <b>Chemical Name</b>                            | <b>LD50 oral</b> | <b>LD50 dermal</b>  | <b>LC50 inhalation</b> |
|---|------------------|---------------------|------------------------|
| zeolite   | Not Available    | Not Available       | Not Available          |
| reaction product: bisphenol-A-(epichlorohydrin) | >2 000 mg/kg Rat | >2 000 mg/kg Rat    | Not Available          |
| carbon black                                    | 15 400 mg/kg Rat | 3 000 mg/kg Rabbit  | Not Available          |
| alkyl glycidyl ether                            | 19 200 mg/kg Rat | 4 000 mg/kg Rabbit  | Not Available          |
| methanol  | 5 628 mg/kg Rat  | 15 800 mg/kg Rabbit | 64 000 ppm Rat 8 h     |

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

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**8820-A****HIGH TEMPERATURE RIGID URETHANE****Other Toxicological Effects****Skin Corrosion/Irritation**

Based on available data, the classification criteria are not met.

**Serious Eye Damage/Irritation**

Based on available data, the classification criteria are not met.

**Sensitization**  
(allergic reactions)

Reaction product: bisphenol-A-(epichlorohydrin) and alkyl glycidyl ether may cause skin sensitization.

**Carcinogenicity**  
(risk of cancer)

Carbon black are possibly carcinogenic by airborne routes of exposures.

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 A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans

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.

**Reproductive Toxicity**  
(risk to sex functions)

According to studies by EPA, birth defects have been observed in the offspring of rats and mice exposed to methanol by inhalation.

**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 are no cat 1 substances, and the kinematic viscosity is  $>20.5 \text{ mm}^2/\text{s}$  at  $40 \text{ }^\circ\text{C}$ .

**8820-A****HIGH TEMPERATURE RIGID URETHANE****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 reaction product: bisphenol-A-(epichlorohydrin) ingredient is an acute category 2 environmental toxicant

The zeolite, carbon black, alkyl glycidyl ether, methanol ingredient is not classified as an environmental hazard according to GHS criteria.

**Acute Ecotoxicity**

Available toxicity data does not meet classification thresholds.

**Chronic Ecotoxicity**

Category 3

Harmful to aquatic life with long lasting effects

Avoid release to the environment.

**Biodegradability**

Expected to be biodegradable. The volatile solvent constituents will oxidize rapidly in air by photochemical reaction.

**Other Effects**

Not available

**Section 13: Disposal Information**

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

**8820-A****HIGH TEMPERATURE RIGID URETHANE****Section 14: Transport Information****Ground**

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

Not Regulated

**Air**

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

Not Regulated

**Sea**

**Refer to IMDG regulations.**

Not Regulated

**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.

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**8820-A**

**HIGH TEMPERATURE RIGID URETHANE**

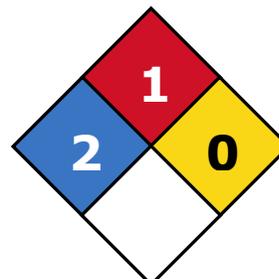
**USA**

**Other Classifications**

**HMIS® RATING**

|                             |          |          |
|-----------------------------|----------|----------|
| <b>HEALTH:</b>              | <b>*</b> | <b>2</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)

**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 contains methyl methacrylate, which is listed as hazardous air pollutants.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains methanol (CAS# 67-56-1; reportable quantity = 5 000 lb), which is 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.

This product contains methanol, which is listed as reproductively toxic in California.

*Section continued on the next page*

**8820-A****HIGH TEMPERATURE RIGID URETHANE****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** Michel Hachey

**Date of Creation** 04 March 2020

**Supersedes** 05 June 2018

**Reason for Changes:** Change to emergency phone numbers.

**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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**8820-A****HIGH TEMPERATURE RIGID URETHANE****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  |
| Wt    | Weight  |

**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)

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