



Kit Revision Date: 04 March 2020

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE KIT

MG Chemicals Multipart Product Kit

This product is a kit made up of multiple parts. Each part is an independently packaged chemical component and has independent hazard assessments.

Kit Content

| <i>Part</i> | <i>Product Name</i> | <i>Product Use</i> |
|-------------|---------------------|------------------------------------|
| A | 9200FR-A | Epoxy resin for use with hardeners |
| B | 9200FR-B | Epoxy hardener for use with resins |

Safety Data Sheets for each part listed above follow this cover sheet.

Transportation Instruction

Before offering this product kit for transport, read Section 14 for all parts listed above.

NOT REGULATED by ground, kits 9200FR-25ML and 9200FR-50ML.

9200FR-A

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: 9200FR-A**Other Means of Identification:** Flame Retardant Structural Epoxy Adhesive (Part A)**Related Part #** 9200FR-25ML, 9200FR-50ML

Recommended Use and Restriction on Use

Use: Epoxy adhesive resin for use with hardeners**Uses Advised Against:** Not for use as a spray coating

Details of Manufacturer or Importer

ManufacturerMG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADAMG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA**TEL** +1-800-340-0772**FAX** +1-800-340-0773**E-MAIL** support@mgchemicals.com**WEB** www.mgchemicals.com**TEL** +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

9200FR-A
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Section 2: Hazard(s) Identification
Classification of Hazardous Chemical
GHS Categories

| Criteria | | Category | Signal Word | Pictograms |
|--------------------------------------|---------|----------|-------------|-------------|
| Sensitization | Skin | 1 | Warning | Exclamation |
| Eye Irritation | | 2 | Warning | Exclamation |
| Skin Irritation | | 2 | Warning | Exclamation |
| Acute Toxicity | Oral | 4 | Warning | Exclamation |
| Reproductive Toxicity | | 2 | Warning | Health |
| Hazardous to the Aquatic Environment | Chronic | 2 | <i>none</i> | 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 | WARNING |
|---|--|
| Pictograms | Hazard Statements |
|  | H319: Causes serious eye irritation H315: Causes skin irritation H317: May cause an allergic skin reaction H302: Harmful if swallowed |
|  | H361: May damage fertility or the unborn child if swallowed |
|  | H411: Toxic to aquatic life with long lasting effects |

Section continued on the next page

9200FR-A
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Continued...

| Prevention | Precautionary Statements |
|--------------------|--|
| P102 | Keep out of reach of children. |
| P201, P202 | Obtain special instructions before use. Do not handle all safety precautions have been read and understood. |
| P261 | Avoid breathing fumes and vapors. |
| P280 | Wear protective gloves and eye protection. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| Response | Precautionary Statements |
| P308 + P313 | IF exposed or concerned. Get medical advice or attention. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| P337 + P313 | If eye irritation persists: Get medical advice or attention. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice or attention. |
| P362 + P364 | Take off contaminated clothing and wash it before reuse. |
| P301 + P312, P330 | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. |
| P391 | Collect spillage. |
| Disposal | Precautionary Statements |
| P501 | Dispose of contents in accordance to local, regional, national, and international regulations. |

Hazards Not Otherwise Classified

| Other Criteria | Hazard Statements/Precautionary Statement | Signal Word | Pictograms |
|-----------------------|--|--------------------|-------------------|
| None | None | None | None |

9200FR-A
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Section 3: Composition/Information on Ingredients

| CAS # | Chemical Name | %(weight) |
|-------------|--|-----------|
| 28064-14-4 | phenol, polymer with formaldehyde, glycidyl ether | 33% |
| 21645-51-2 | aluminum trihydrate | 20% |
| 68333-79-9 | ammonium polyphosphate | 19% |
| 25085-99-8 | bisphenol-A epoxy resin (reaction product) ^{a)} | 19% |
| 138265-88-0 | zinc borate | 6% |
| 60506-81-2 | dipentaerythritol pentaacrylate | 2% |

a) Average molecular weight of ≤ 700

Section 4: First-Aid Measures

| <i>Exposure Condition</i> | <i>GHS Code/Symptoms/Precautionary Statements</i> |
|---------------------------|--|
| IF IN EYES | P305 + P351 + P338, P337 + P313 |
| Immediate Symptoms | <i>redness, irritation, pain</i> |
| Response | 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 or attention. |
| IF ON SKIN | P302 + P352, P333 + P313, P362 + P364 |
| Immediate Symptoms | <i>redness, irritation, dry skin, allergic contact dermatitis</i> |
| Response | Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. |
| IF INHALED | P304 + P340 |
| Immediate Symptoms | <i>cough, irritation of the respiratory track</i> |
| Response | Remove person to fresh air and keep comfortable for breathing. |

Section continued on the next page

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE***Continued...*

| | |
|---------------------------|---|
| IF SWALLOWED | P301 + P330 + P331, P312, P308 + P313 |
| Immediate Symptoms | <i>abdominal discomfort, nausea, vomiting</i> |
| Response | Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell. IF exposed or concerned. Get medical advice or attention. |

Section 5: Fire-Fighting Measures

| | |
|----------------------------|--|
| Extinguishing Media | In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. |
| Specific Hazards | Not flammable or combustible, but burns if involved in a fire. Produces irritating smoke of unknown toxicity in fires. Inhalation of zinc oxide and aluminum oxide fumes may cause metal fever and irritate the respiratory tract. The flu-like symptoms of metal fever may be delayed, occurring 4 to 12 hours after exposure. Prevent fire-fighting wash from entering waterway or sewer system. |
| Combustion Products | Produces carbon oxides (CO,CO ₂), ammonia, aluminum oxides, zinc oxides and other toxic fumes. |
| Fire-Fighter | Wear self-contained breathing apparatus and full fire-fighting turn-out gear. |

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Section 6: Accidental Release Measures**

| | |
|----------------------------------|---|
| Personal Protection | See personal protection recommendations in Section 8. |
| Precautions for Response | Avoid breathing the fumes and vapors. Remove or keep away all sources of extreme heat or open flames. |
| Environmental Precautions | Avoid releasing to the environment. Prevent spill from entering drains and waterways. |
| Containment Methods | Contain with inert and non-flammable absorbent such as soil, sand, or vermiculite. |
| Cleaning Methods | Collect liquid in a sealable, chemical-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Use soap and water to remove the last traces of residue. |
| Disposal Methods | Dispose of spill waste according to Section 13. |

Section 7: Handling and Storage

| | |
|-------------------|---|
| Prevention | Keep out of reach of children. Obtain special instructions before use. Do not handle all safety precautions have been read and understood. Avoid breathing fumes and vapors. Avoid release to the environment. |
| Handling | Wear protective gloves and 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. Do not eat, drink or smoke when using this product. Collect spillage. |
| Storage | Store in a well-ventilated area. |

9200FR-A

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

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) |
|--|-----------------|---------------------------------|-----------------------------------|
| aluminum metal and insoluble compounds ^{a)} | ACGIH | 1 mg/m ³ | Not established |
| | U.S.A. OSHA PEL | 15 mg/m ³ | Not established |
| | Canada AB | 10 mg/m ³ | Not established |
| | Canada BC | 1 mg/m ³ | Not established |
| | Canada ON | 1 mg/m ³ | Not established |
| | Canada QC | 10 mg/m ³ | Not established |

Note: The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS² 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).

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

9200FR-A
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

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.

Section 9: Physical and Chemical Properties

| | | | |
|--|----------------------|--|--------------------------|
| Physical State | Liquid | Lower Flammability Limit | Not available |
| Appearance | Off-white | Upper Flammability Limit | Not available |
| Odor | Mild | Vapor Pressure @20 °C | Not available |
| Odor Threshold | Not available | Vapor Density | Not available |
| pH | Not available | Relative Density @25 °C | 1.30 |
| Freezing/Melting Point | Not available | Solubility in Water | Slightly Soluble |
| Initial Boiling Point ^{a)} | ≥150 °C [≥302 °F] | Partition Coefficient n-octanol/water | Not available |
| Flash Point ^{b)} | 113 °C [>235 °F] | Auto-ignition Temperature | Not available |
| Evaporation Rate | Not available | Decomposition Temperature | Not available |
| Flammability | Non Flammable | Viscosity @25 °C | >20.5 mm ² /s |

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

b) Component with the lowest value—dipentaerythritol pentaacrylate

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Section 10: Stability and Reactivity**

| | |
|----------------------------|--|
| Reactivity | Reacts exothermically with amines. |
| Chemical Stability | Chemically stable at normal temperatures and pressures |
| Conditions to Avoid | Avoid ignition sources, open flames, and incompatible substances. |
| Incompatibilities | Strong oxidizing agents, strong acids, strong bases, amines |
| 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, irritation, or pain. |
| Skin | May cause skin redness, irritation, dry skin, or allergic contact dermatitis. |
| Inhalation | May cause cough and irritation of the respiratory track. |
| Ingestion | May cause abdominal discomfort, nausea, and vomiting. |
| Chronic | Prolonged and repeated exposure may lead to skin sensitization. |

Acute Toxicity (Lethal Exposure Concentrations)

| Chemical Name | LD50 oral | LD50 dermal | LC50 inhalation |
|---|----------------------------------|--------------------|----------------------------------|
| phenol, polymer with formaldehyde, glycidyl ether | 4 000 mg/kg Rabbit ^{a)} | Not available | 6 000 mg/kg Rabbit ^{a)} |
| aluminum trihydrate | Not available | Not available | Not available |
| ammonium polyphosphate | 300 mg/kg Rat | Not available | Not available |

Section continued on the next page

9200FR-A
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Continued ...

| Chemical Name | LD50 oral | LD50 dermal | LC50 inhalation |
|--|------------------------------------|-----------------------------------|------------------------|
| reaction products: bisphenol-A-(epichlorohydrin) and epoxy resin ^{b)} | >15 000 mg/kg Rat ^{a)} | 23 000 mg/kg Rat ^{a)} | Not available |
| zinc borate | >10 000 mg/kg Rat ^{a)} | 10 000 mg/kg Rat ^{a)} | Not available |
| dipentaerythritol pentaacrylate | Not available | Not available | Not available |

Note: Toxicity data from the RTECS² and ECHA were consulted. The data from supplier SDS were also consulted.

a) Supplier SDS

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

Other Toxicological Effects

| | |
|--|--|
| Skin corrosion/irritation | Based on component data, the mixture is a skin irritant. |
| Serious eye damage/irritation | Based on component data, the mixture causes serious eye irritation. |
| Sensitization (allergic reactions) | Based on component data, the mixture is a skin sensitizer based on animal studies. |
| Carcinogenicity (risk of cancer) | Not 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) | Animal ingestion studies show that high doses of zinc borate cause reproductive and developmental effects. |
| 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. |

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****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# 28064-14-4 and 25085-99-8 have an average molecular weight of less than 700 and are generally classified as chronic category 2 aquatic pollutant due to LC50 96 h of >1 mg/L but ≤10 mg/L.

Zinc borate is a category 1 chronic aquatic pollutant with a LC50 96 h 2.4 mg/L for oncorhynchus mykiss (rainbow trout); 76 mg/L 48 h Daphnia magna (water flea).

Based on available data, aluminum trihydrate, ammonium polyphosphate and dipentaerythritol pentaacrylate are not classified as environmental hazards according to GHS criteria.

Acute Ecotoxicity

Available toxicity data does not meet classification thresholds.

Chronic Ecotoxicity

Category 2

Toxic to aquatic life with long lasting effects

Avoid release to the environment. Collect spillage.

Biodegradability

Not available

Bioaccumulation

Not available

Section 13: Disposal Information

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

9200FR-A

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Section 14: Transport Information

Ground

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

| | |
|---|---|
| <p>Sizes under 450 L <i>9200FR-25ML, 9200FR-50ML</i></p> <p>NOT REGULATED in TDG per Special Provisions 99</p> | <p><i>FOR REFERENCE ONLY</i></p> <p>UN number: UN3082 Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (phenol, polymer with formaldehyde, glycidyl ether, bisphenol-A, zinc borate) Class: 9 Packing Group: III Marine Pollutant: Yes</p> |
| <p>Sizes 5 L and under NOT REGULATED in 49 CFR per exception 171.4 (c)(2)</p> | |

Special Provision 99 (2): These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

Air

Refer to ICAO-IATA regulations.

| | |
|---|--|
| <p>Sizes 5 L and under <i>9200FR-25ML, 9200FR-50ML</i></p> <p>NOT REGULATED Not Restricted, as per Special Provisions A197</p> | |
|---|--|

Special Provision A197: These substances when transported in single or combination packagings containing net quantity per single or inner packaging of less than 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Section continued on the next page

9200FR-A

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Sea

Refer to IMDG regulations.

Sizes 5 L and under
 9200FR-25ML, 9200FR-50ML
NOT REGULATED
 per 2.10.2.7

2.10.2.7: Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provision of this Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this Code relevant to any additional hazards continue to apply.

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.

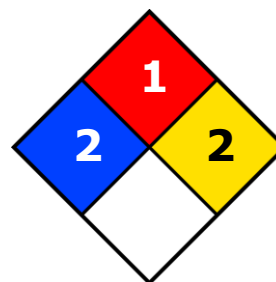
USA

Other Classifications

HMIS® RATING

| | | |
|-----------------------------|----------|----------|
| HEALTH: | * | 2 |
| FLAMMABILITY: | | 1 |
| PHYSICAL HAZARD: | | 2 |
| PERSONAL PROTECTION: | | |

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Section continued on the next page

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****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 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 | Regulatory Department |
| Date of Review | 04 March 2020 |
| Supersedes | 11 April 2019 |
| Reason for Changes: | Change to emergency phone numbers. |

Section continued on the next page

9200FR-A**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****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 |

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

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.

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: 9200FR-B**Other Means of Identification:** Flame Retardant Structural Epoxy Adhesive (Part B)**Related Part #** 9200FR-25ML, 9200FR-50ML

Recommended Use and Restriction on Use

Use: Epoxy adhesive hardener for use with resins**Uses Advised Against:** Not for use as a spray coating

Details of Manufacturer or Importer

ManufacturerMG 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**WEB** www.mgchemicals.com**☎** +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

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Section 2: Hazard(s) Identification




Classification of Hazardous Chemical

GHS Categories

| Criteria | | Category | Signal Word | Pictograms |
|--------------------------------------|---------|----------|-------------|-------------|
| Serious Eye Damage | | 1 | Danger | Corrosion |
| Reproductive Toxicity | | 2 | Warning | Health |
| Irritation | Skin | 2 | Warning | Exclamation |
| Sensitization | Skin | 1 | Warning | Exclamation |
| Acute Toxicity | Oral | 4 | Warning | Exclamation |
| Hazardous to the 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 |
|  | H318: Causes serious eye damage |
|  | H361: May damage fertility or the unborn child if swallowed |
|  | H315: Causes skin irritation H317: May cause an allergic skin reaction H302: Harmful if swallowed |

Section continued on the next page

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Continued...

| Pictograms | Hazard Statements |
|---|--|
|  | H411: Toxic to aquatic life with long lasting effects |
| Prevention | Precautionary Statements |
| P102 | Keep out of reach of children. |
| P201, P202 | Obtain special instructions before use. Do not handle all safety precautions have been read and understood. |
| P280 | Wear protective gloves and eye protection. |
| P261 | Avoid breathing fumes and vapors. |
| 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. |
| Response | Precautionary Statements |
| P308 + P313 | IF exposed or concerned. Get medical advice or attention. |
| P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| 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 or doctor. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice or attention. |
| P362 + P364 | Take off contaminated clothing and wash it before reuse. |
| P301 + P312, P330 | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth |
| P391 | Collect spillage. |
| Storage | Precautionary Statements |
| P405 | Store locked up. |

Section continued on the next page

9200FR-B
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Continued...

| Disposal | Precautionary Statements |
|-----------------|--|
| P501 | Dispose of contents in accordance to local, regional, national, and international regulations. |

Hazards Not Otherwise Classified

| Other Criteria | Hazard Statements/Precautionary Statement | Signal Word | Pictograms |
|-----------------------|--|--------------------|-------------------|
| None | None | None | None |

Section 3: Composition/Information on Ingredients

| CAS # | Chemical Name | %(weight) |
|--------------|---|------------------|
| 68683-29-4 | ATBN polymer | 23% |
| 21645-51-2 | aluminum trihydrate | 22% |
| 68333-79-9 | ammonium polyphosphate | 20% |
| 68410-23-1 | fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | 18% |
| 68082-29-1 | fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine | 7% |
| 138265-88-0 | zinc borate | 6% |
| 112-24-3 | triethylenetetramine | 1% |
| 140-31-8 | 2-piperazin-1-ylethylamine (AEP) | 1% |

9200FR-B
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Section 4: First-Aid Measures

| <i>Exposure Condition</i> | <i>GHS Code: Precautionary Statement</i> |
|---------------------------|---|
| IF IN EYES | P305 + P351 + P338, P310 |
| Immediate Symptoms | <i>redness, severe irritation, pain, burns</i> |
| 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 | P302 + P352, P362 + P364, P333 + P313 |
| Immediate Symptoms | <i>redness, irritation, rash (allergic contact dermatitis)</i> |
| Response | Wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice or attention. |
| IF SWALLOWED | P301 + P330 + P331, P312, P308 + P313 |
| Immediate Symptoms | <i>irritation, abdominal pain, nausea, vomiting, burning sensation</i> |
| Response | Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor if you feel unwell. IF exposed or concerned. Get medical advice or attention. |
| IF INHALED | P304 + P340 |
| Immediate Symptoms | <i>cough, sore throat, irritation of the respiratory track, burning sensation</i> |
| Delayed Symptoms | <i>asthma, difficulty breathing</i> |
| Response | Remove person to fresh air and keep comfortable for breathing. |

Advice to Physicians

In case of over 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.

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Section 5: Fire-Fighting Measures**

| | |
|----------------------------|--|
| Extinguishing Media | In case of fire: Use extinguishing media suitable for surrounding materials. |
| Specific Hazards | <p>Not flammable or combustible, but burns if involved in a fire. Produces irritating and toxic fumes in fires or in contact with hot surfaces.</p> <p>Inhalation of aluminum oxide and zinc oxide fumes may cause metal fever and irritate the respiratory tract. The flu-like symptoms of metal fever may be delayed, occurring 4 to 12 hours after exposure.</p> <p>Inhalation of toxic smoke during fire may have delayed effects. Exposed person may need to be put under surveillance for 48 h.</p> <p>Toxic for aquatic environment: Prevent fire-fighting wash from entering waterway or sewer system.</p> |
| Combustion Products | Produces carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), aluminum oxides and ammonia. |
| 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 | Avoid breathing fumes and 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 and non-flammable 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 off residues with paper towels and place the used towels in the waste container. Wash spill area with soap and water to remove the last traces of residue. |
| Disposal Methods | Dispose spill waste according to Section 13. |

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Section 7: Handling and Storage

Prevention

Keep out of reach of children.
Obtain special instructions before use. Do not handle all safety precautions have been read and understood.
Avoid breathing fumes and vapors.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Handling

Wear protective gloves and eye protection.
Take off contaminated clothing and wash it before reuse.
Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
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) |
|--|-------------------|---------------------------------|-----------------------------------|
| aluminum metal and insoluble compounds ^{a)} | ACGIH | 1 mg/m ³ | Not established |
| | U.S.A. OSHA PEL | 15 mg/m ³ | Not established |
| | Canada AB | 10 mg/m ³ | Not established |
| | Canada BC | 1 mg/m ³ | Not established |
| | Canada ON | 1 mg/m ³ | Not established |
| | Canada QC | 10 mg/m ³ | Not established |

Section continued on the next page

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Continued...

| Chemical Name | Country or Vendor | Long Term Exposure Limits (PEL) | Short Term Exposure Limits (STEL) |
|----------------------|--|--|---|
| triethylenetetramine | ACGIH U.S.A. OSHA PEL U.S.A (WEEL) Canada AB Canada BC Canada ON Canada QC | Not established Not established 1 ppm Not established Not established 0.5 mg/m ³ (Skin) Not established | Not established Not established Not established Not established Not established Not established Not established |

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS² 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
- Skin—can be absorbed through the skin.

Engineering Controls

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

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.

Section continued on the next page

9200FR-B
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Respiratory Protection For over-exposures up to 10 x OEL of mist, vapors, and 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 | Light yellow | Upper Flammability Limit | Not available |
| Odor | Ammonia-like | Vapor Pressure @20 °C^{a)} | <0.001 kPa [<0.01 mmHg] |
| Odor Threshold | Not available | Vapor Density | Not available |
| pH | Not available | Relative Density @25 °C | 1.27 |
| Freezing/Melting Point | Not available | Solubility in Water | Slightly soluble |
| Initial Boiling Point | 150 °C [302 °F] | Partition Coefficient n-octanol/water | Not available |
| Flash Point^{a)} | 122 °C [252 °F] | Auto-ignition Temperature | Not available |
| Evaporation Rate | Not available | Decomposition Temperature | Not available |
| Flammability | Non Flammable | Viscosity @25 °C | >20.5 mm ² /s |

a) Literature value for triethylenetetramine

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****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. |
| Chemical Stability | Chemically stable at normal temperatures and pressures |
| Conditions to Avoid | Ignition sources, open flames, and incompatible substances |
| Incompatibilities | Strong oxidizing agents, strong acids, alkali |
| 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 irritation, pain, or burns. |
| Skin | May cause redness, serious skin irritation and allergic contact dermatitis. 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 | May cause cough, sore throat, irritation of the respiratory track, or burning sensation. |
| Ingestion | May cause irritation, abdominal pain, nausea, vomiting, burning sensation (see inhalation symptoms). |
| Chronic | Prolonged and repeated exposure to uncured epoxy hardener may lead to skin sensitization. |

Section continued on the next page

9200FR-B
FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE
Acute Toxicity (Lethal Exposure Concentrations)

| Chemical Name | LD50 oral | LD50 dermal | LC50 inhalation |
|---|----------------------------|---------------------------------------|------------------------|
| ATBN polymer | Not available | Not available | Not available |
| aluminum trihydrate | >2 000 mg/kg Rat | Not available | Not available |
| ammonium polyphosphate | 300 mg/kg Rat | Not available | Not available |
| fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | >5 000 mg/kg ^{a)} | >5 000 mg/kg ^{a)} | Not available |
| fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine | >5 000 mg/kg ^{a)} | >5 000 mg/kg ^{a)} | Not available |
| zinc borate | Not available | >10 000 mg/kg Rabbit ^{a)} | Not available |
| triethylenetetramine | 2 500 mg/kg Rat | 805 mg/kg Rabbit | Not available |
| 2-piperazin-1-ylethylamine (AEP) | 2 097 mg/kg Rat | 866 mg/kg Rabbit | Not available |

Note: Toxicity data from the RTECS² and ECHA were consulted. The data from supplier SDS were also consulted.

a) Supplier SDS

Other Toxicological Effects
Skin corrosion/irritation

Based on concentrations in the mixture Triethylenetetramine and 2-piperazin-1-ylethylamine causes skin irritation.

Serious eye damage/irritation

Triethylenetetramine and fatty acids, C18-unsatd., dimers, (CAS# 68410-23-1 and CAS# 68082-29-1) causes severe eye damage.

Respiratory and skin sensitization (allergic reactions)

The epoxy hardener components may cause skin sensitization according to animal studies.

Carcinogenicity
(risk of cancer)

None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.

Section continued on the next page

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE**

| | |
|--|--|
| Mutagenicity (risk of heritable genetic effects) | Based on available data, the classification criteria are not met. |
| Reproductive Toxicity (risk to sex functions) | Animal ingestion studies show that high doses of zinc borate cause reproductive and developmental effects. Based on animal studies 2-piperazin-1-ylethylamine has been shown to be a developmental toxicant if swallowed. |
| 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 category 1 components, and the kinematic viscosity is $>20.5 \text{ mm}^2/\text{s}$ at $40 \text{ }^\circ\text{C}$. |

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.

The fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines (CAS# 68410-23-1) and fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine (CAS# 68082-29-1) are classified as a chronic category 2 environmental toxicants (not readily biodegradable, LC50 range of 1–10 mg/L for fish; EC0 bacterial >10 and ≤ 100 mg/L).

Zinc borate is a category 1 chronic marine pollutant with a LC50 96h 2.4 mg/L for oncorhynchus mykiss (rainbow trout); 76 mg/L 48 h daphnia magna (water flea).

Literature values for the triethylenetetramine (CAS# 112-24-3) suggest an acute category 3 aquatic toxicity (LC50, IC50, and EC50 values of >100 mg/L for fish and between 10 and 100 mg/L for algae).

2-piperazin-1-ylethylamine is a category 3 chronic environmental hazard with a LC50 96h 2 190 mg/L for fathead minnows; 58 mg/L 48h daphnia magna (water flea), and $>1\ 000$ mg/L (EC50 for algae based on growth rate).

Based on available data, aluminum trihydrate, ammonium polyphosphate and dipentaerythritol pentaacrylate are not classified as environmental hazards according to GHS criteria.

Section continued on the next page

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Acute Ecotoxicity**

Category 2

Toxic to aquatic life

Avoid release to the environment.

Chronic Ecotoxicity

Category 2

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.

9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

Section 14: Transport Information

Ground

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

| | |
|---|--|
| <p>Sizes under 450 L <i>Part B of 9200FR-25ML, 9200FR-50ML kits</i> NOT REGULATED in TDG per Special Provisions 99</p> | <p><i>FOR REFERENCE ONLY</i> UN number: UN3082 Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (fatty acids, C18-unsatd., dimers, zinc borate) Class: 9 Packing Group: III Marine Pollutant: Yes</p> |
| <p>Sizes 5 L and under NOT REGULATED in 49 CFR per exception 171.4 (c)(2)</p> | |

Special Provision 99 (2): These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

Air

Refer to ICAO-IATA regulations.

| | |
|---|--|
| <p>Sizes 5 L and under <i>Part B of 9200FR-25ML, 9200FR-50ML kits</i> NOT REGULATED Not Restricted, as per Special Provisions A197</p> | |
|---|--|

Special Provision A197: These substances when transported in single or combination packagings containing net quantity per single or inner packaging of less than 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Section continued on the next page

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Sea****Refer to IMDG regulations.**

Sizes 5 L and under
Part B of 9200FR-25ML, 9200FR-50ML kits
NOT REGULATED
per 2.10.2.7

2.10.2.7: Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provision of this Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this Code relevant to any additional hazards continue to apply.

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/NDSL.

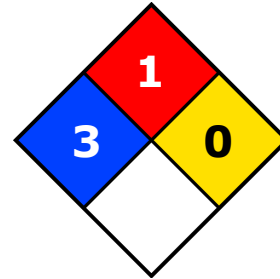
Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

Section continued on the next page

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****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.

9200FR-B**FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE****Section 16: Other Information**

| | |
|----------------------------|-----------------------|
| SDS Prepared by | Regulatory Department |
| Date of Revision | 21 December 2020 |
| Supersedes | 20 March 2020 |
| Reason for Changes: | Update to section 11. |

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 |

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

Section continued on the next page



9200FR-B

FLAME RETARDANT STRUCTURAL EPOXY ADHESIVE

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

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

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.