

9510

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Identifier:** 9510**Other Means of Identification:** One-part epoxy potting compound**Related Part #** 9510-30ML, 9510-300ML, 9510-3.6L

### Recommended Use and Restriction on Use

**Use:** electrically conductive adhesive**Uses Advised Against:** Not for use as a spray coating

### Details of Manufacturer or Importer

**Manufacturer**MG Chemicals  
1210 Corporate Drive  
Burlington, Ontario L7L 5R6  
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](mailto:support@mgchemicals.com)**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)**TEL** +1-905-331-1396**FAX** +1-905-331-2682**E-MAIL** [info@mgchemicals.com](mailto:info@mgchemicals.com)**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto: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

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**Section 2: Hazard(s) Identification**



**Classification of Hazardous Chemical**

**GHS Categories**

Criteria	Category	Signal Word	Pictograms
Sensitization Skin	1	Warning	Exclamation
Eye Irritation	2A	Warning	Exclamation
Skin Irritation	2	Warning	Exclamation
Hazardous to the Aquatic Environment Chronic	2	Warning	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**

<b>Signal Word</b>	<b>WARNING</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H317: May cause an allergic skin reaction H319: Causes serious eye irritation H315: Causes skin irritation
	H411: Toxic to aquatic life with long lasting effects

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<b>Prevention</b>	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P261	Avoid breathing fumes, vapors.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves, eye protection.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
<b>Response</b>	<b>Precautionary Statements</b>
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice or attention.
P302 + P352	IF ON SKIN: Wash with plenty water.
P333 + P313	If skin irritation or rash occurs: Get medical advice or attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents in accordance to local, regional, national, and international regulations.

### Hazards Not Otherwise Classified

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
None	None	None	None

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**Section 3: Composition/Information on Ingredients**

CAS #	Chemical Name	%(weight)
25085-99-8	bisphenol-A-(epichlorhydrin)	69%
68609-97-2	alkyl glycidyl ether	8%
9003-35-4	phenol, polymer with formaldehyde	7%
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin)	0.8%
1333-86-4	carbon black	0.3%

**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
<b>IF IN EYES</b>	P305 + P351 + P338, P337 + P313
<b>Immediate Symptoms</b>	<i>redness, serious irritation, pain</i>
<b>Response</b>	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.
<b>IF ON SKIN</b>	P302 + P352, P362 + P364, P333 + P313
<b>Immediate Symptoms</b>	<i>redness, irritation, allergic contact dermatitis</i>
<b>Response</b>	Wash with plenty water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice or attention.
<b>IF INHALED</b>	P304 + P340
<b>Immediate Symptoms</b>	<i>low toxicity: no symptoms known or expected</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing.
<b>IF SWALLOWED</b>	P301 + P330 + P331
<b>Immediate Symptoms</b>	<i>low toxicity: no symptoms known or expected</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.

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**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: 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. Prevent fire-fighting wash from entering waterway or sewer system.
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides, ammonia, aldehydes, phenolics and other toxic fumes.
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Avoid breathing the fumes, vapors. Remove or keep away all sources of extreme heat or open flames.
<b>Environmental Precautions</b>	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
<b>Containment Methods</b>	Not applicable
<b>Cleaning Methods</b>	Collect liquid in a sealable, chemical-resistant container. Wipe residue with a paper towel, and place dirty towels in container. Use soap and water to remove the last traces of residue.
<b>Disposal Methods</b>	Dispose of spill waste according to Section 13.

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**Section 7: Handling and Storage**

<b>Prevention</b>	Keep out of reach of children.  Avoid breathing fumes or vapors. Contaminated work clothing should not be allowed out of the workplace.  Avoid release to the environment.
<b>Handling</b>	Wear protective gloves and eye protection.  Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling.  Collect spillage.
<b>Storage</b>	<b>RECOMMENDATION:</b> Keep in a dry and clean area, away from incompatible substances.

**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)
carbon black <sup>a)</sup>	ACGIH	3.5 mg/m <sup>3</sup>	Not established
	U.S.A. OSHA PEL	3.5 mg/m <sup>3</sup>	Not established
	Canada AB	3.5 mg/m <sup>3</sup>	Not established
	Canada BC	3 mg/m <sup>3</sup>	Not established
	Canada ON	3.5 mg/m <sup>3</sup>	Not established
	Canada QC	3.5 mg/m <sup>3</sup>	Not established

*Note:* 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' 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

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### Engineering Controls

#### Ventilation

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

Because the carbon black is bound to the liquid mixture, it does not present an airborne hazard under normal use. Ensure adequate ventilation if the product is mechanically misted or aerosolized.

### 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, latex, neoprene, or other chemically resistant gloves.

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

#### Respiratory Protection

In case of emergencies, and if the product is heated or if 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.

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**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>	Odorless	<b>Vapor Pressure @20 °C</b>	Not available
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	>1 (Air = 1)
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	1.12
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Not available
<b>Initial Boiling Point <sup>a)</sup></b>	150 °C [302 °F]	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point <sup>b)</sup></b>	113 °C [235 °F]	<b>Auto-ignition Temperature</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Not applicable	<b>Viscosity @40 °C</b>	>20.5 mm <sup>2</sup> /s

a) Values based on bisphenol-A-(epichlorhydrin)

b) Values based on alkyl glycidyl ether.



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### Section 10: Stability and Reactivity

<b>Reactivity</b>	Reacts exothermically with amines. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures.
<b>Conditions to Avoid</b>	Avoid ignition sources, open flames, and incompatible substances. Do not use in away that forms mist or aerosolizes the product.
<b>Incompatibilities</b>	Avoid oxidizing agents, strong acids, strong bases and peroxides.
<b>Polymerization</b>	Will not occur by itself without applying heat.
<b>Decomposition</b>	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

<b>Eyes</b>	May cause redness, serious irritation, or pain.
<b>Skin</b>	Causes skin redness, irritation, or allergic contact dermatitis.
<b>Inhalation</b>	Low toxicity: no symptoms known or expected.
<b>Ingestion</b>	Low toxicity: no symptoms known or expected.
<b>Chronic</b>	Prolonged and repeated exposure may lead to skin sensitization.

#### Acute Toxicity (Lethal Exposure Concentrations)

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
bisphenol-A epoxy resin (reaction product)	>15 000 mg/kg Rat <sup>a)</sup>	23 000 mg/kg Rabbit <sup>a)</sup>	Not available
alkyl glycidyl ether	19 200 mg/kg Rat	>4 000 mg/kg Rat	Not available
phenol, polymer with formaldehyde	>5 000 mg/kg Rat	>2 000 mg/kg Rat	Not available

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<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
reaction product: bisphenol-A-(epichlorhydrin)	9 600 mg/kg Rat <sup>a)</sup>	3 800 mg/kg Rat <sup>a)</sup>	Not available
carbon black	>15 g/kg Rat	>3 g/kg Rabbit	Not available

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

a) Supplier SDS

### Other Toxicological Effects

#### **Skin corrosion/irritation**

Epoxy resins and alkyl glycidyl ether cause skin irritation.

#### **Serious eye damage/irritation**

Based on animal studies, epoxy resins, alkyl glycidyl ether and phenol, polymer with formaldehyde cause serious eye irritation.

#### **Sensitization** (allergic reactions)

Epoxy resins, alkyl glycidyl ether and phenol, polymer with formaldehyde ingredients are known skin sensitizers. Animal studies show that epoxy components may cause skin sensitization.

#### **Carcinogenicity** (risk of cancer)

The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures under WHMIS.

Because the carbon black is bound in the liquid mixture, it is not available as an airborne hazard (dust) under normal use.

#### **Carbon Black [1333-86-4]**

IARC Group 2B: Possibly carcinogenic to humans

ACGIH A4: Not classified as a human carcinogen

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)

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

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<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	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.

In Europe, similar epoxy resin mixtures with CAS# 25085-99-8 and 25068-38-6 are generally classified as chronic category 2 marine pollutant due to LC50 96 h of  $>1 \text{ mg/L}$  but  $\leq 10 \text{ mg/L}$ .

The alkyl glycidyl ether, phenol, polymer with formaldehyde and carbon black are not classifiable as ecotoxic hazards under GHS criteria.

#### Acute Ecotoxicity

See chronic ecotoxicity.

#### 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

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### Section 13: Disposal Information

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

### Section 14: Transport Information

#### Ground

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

<p>TDG: Sizes under 450 L <i>9510-3ML, 9510-300ML, 9510-3.6L</i> <b>NOT REGULATED</b> in TDG per Special Provisions 99</p>	<p>49 CFR: Sizes greater than 5 L <i>FOR REFERENCE ONLY</i> <b>UN number:</b> UN3082 <b>Shipping Name:</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin))</p>
<p>49 CFR: Sizes 5 L and under <i>9510-3ML, 9510-300ML, 9510-3.6L</i> <b>NOT REGULATED</b> in 49 CFR per exception 171.4 (c)(2)</p>	<p><b>Class:</b> 9 <b>Packing Group:</b> III <b>Marine Pollutant:</b> Yes</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.

**171.4 (c) Exceptions:** (2) 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 of 5 kg or less for solids, are not subject to any other requirements of this subchapter provided the packagings meet the general requirements in §§ 173.24 and 173.24a. This exception does not apply to marine pollutants that are a hazardous waste or a hazardous substance. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this subchapter relevant to any additional hazards continue to apply.

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### Air

**Refer to ICAO-IATA regulations.**

Sizes 5 L and under  
*9510-3ML, 9510-300ML, 9510-3.6L*

**NOT REGULATED**

On air waybill, write:  
"Not Restricted, as per Special  
Provisions A197"

**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.

### Sea

**Refer to IMDG regulations.**

Sizes 5 L and under  
*9510-3ML, 9510-300ML, 9510-3.6L*

**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.**

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**Section 15: Regulatory Information**
**Canada**
**Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

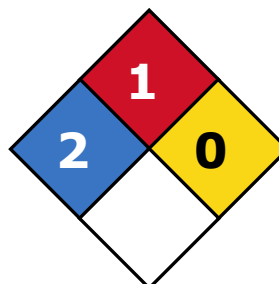
All hazardous ingredients are listed on the DSL.

**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**

<b>HEALTH:</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 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 ingredients 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.

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**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.

### Europe

**RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

**WEEE** (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

### Section 16: Other Information

**SDS Prepared by** MG Chemical's Regulatory Affairs Department

**Date of Review** 15 July 2021

**Supersedes** 21 July 2020

**Reason for Changes:** Updated section 14 to show part number 9510-3.6L.

#### 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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### 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](http://www.mgchemicals.com).

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