Safety Data Sheet
Epoxy (Group B)

SECTION 1. IDENTIFICATION

Product Identifier	**Epoxy (Group B)**
Other Means of Identification	*Not Applicable*
Recommended Use	Coating.
Restrictions on Use	*Not Available*
Initial Supplier Identifier	**Emerald Coatings** 5914 Wellington Rd., 123 Palmerston, ON, Canada, N0G 2P0 Telephone: 1 (855) 317-4867
Emergency Telephone Number	Toll Free: 1-855-317-4867 (8am – 4pm EST)

SECTION 2. HAZARD IDENTIFICATION

GHS Classification	**CARCINOGENICITY – CATEGORY 2**
Label Elements **Pictograms**	
Signal Word	**WARNING**
Hazard Statements	H351 – Suspected of causing cancer.
Precautionary Statements	
Prevention:	P202 – Do not handle until all safety precautions have been read and understood. P280 – Wear protective gloves/clothing/eye protection/face protection/hearing protection.
Response:	P308 + P313 – IF exposed or concerned: Get medical advice/attention.
Storage:	P405 – Store locked up.
Disposal:	P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.
Other Hazards	**May form combustible dust concentrations in air.**
NOTES	*Not Applicable*

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration*	Common name / Synonyms
bisphenol-A-(epichlorhydrin) and epoxy resin	25068-38-6	30 – 60%*	*Not Applicable*
methylenedisalicylic acid	27496-82-8	5 – 10%*	*Not Applicable*
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)]bis[oxirane]	25036-25-3	5 – 10%*	*Not Applicable*
Carbon black	1333-86-4	1 – 3%*	*Not Applicable*

Notes	*Actual concentration withheld to protect confidentiality. No other ingredients present in this mixture are classified as hazardous to health or the environment to the current knowledge of the supplier.

SECTION 4. FIRST-AID MEASURES

Inhalation	Avoid breathing dust. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
Skin Contact	Remove contaminated clothing and shoes. Rinse with soap and water. Avoid further exposure and get medical advice. Do not use solvents or thinners.
Eye Contact	Immediately flush contaminated eye(s) with lukewarm, gently running water for at least 15 minutes while holding the eyelid(s) open. Take care not to rinse contaminated water into a non-affected eye. Remove contact lenses if applicable and easy to do so. Continue rinsing. Seek medical advice.
Ingestion	Rinse mouth. Do NOT induce vomiting. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Seek medical advice.
Most Important Symptoms and Effects, Acute and Delayed	Acute: INHALATION: May be irritating to nose, throat, lungs. May cause or increase asthma symptoms including coughing and wheezing. EYE CONTACT: May cause redness and/or tearing. Chronic: May cause cancer.
Immediate Medical Attention and Special Treatment	Treat symptomatically. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media	
Suitable Extinguishing Media	Use dry chemical, carbon dioxide, water fog or foam.
Unsuitable Extinguishing Media	Do not use water jet.
Hazardous Combustion Products	May produce halogenated compounds, oxides of carbon, sulphur and heavy metals listed in section 3.
Specific Hazards Arising from the Product	Dusts may form explosive mixtures with air. Product itself is not flammable.
Special Protective Equipment and Precautions for Fire-Fighters	Wear SCBA for firefighting if necessary. Use water to keep fire-exposed containers cool. Move containers away from fire is safe to do so.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Evacuate unnecessary personnel from spill area. Wear appropriate personal protective equipment (See Section 8). Move containers from spill area. Do not generate or breathe dusts.
Methods for Containment and Cleaning Up	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. For large spills, move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Put on appropriate personal protective equipment (see Section 8). Avoid exposure: obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
Conditions for Safe Storage	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	**ACGIH® TLV®**		**OSHA PEL**	
Carbon Black	3 mg/m^3 (TWA) 8h Respirable Fraction	*Not Available*	3.5 mg/m^3 (TWA) 8h	*Not Available*
Notes	*Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area. STEL = Short-term exposure limit; TWA = Time weighted average; PAHs = Polycyclic aromatic hydrocarbons; TLV = Threshold limit value; REL = Recommended exposure limit			

Appropriate Engineering Controls	Use ONLY with general or local exhaust ventilation to maintain exposure below the exposure limits. Ensure proper ventilation if dust, mist, vapour is created during use. Use explosion-proof ventilation equipment.
Individual Protection Measures	
Eye/Face Protection	Eye protection is required in industrial settings. The wearing of contact lenses is not recommended.
Skin Protection	Wear chemical-resistant impervious gloves fabricated from butyl rubber. Avoid use of leather and wool.

Respiratory Protection	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Other	Have a safety shower and eye wash station readily available in the immediate work area. Use proper industrial hygiene practices. Remove contaminated clothing and do not allow contaminated clothing out of the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid (Powder)	**Specific Gravity (Water = 1)**	1.2 – 1.9
Odour	Odourless	**Solubility in Water**	Partially
Odour Threshold	*Not Available*	**Solubility in Other Liquids**	*Not Available*
pH	*Not Available*	**Partition Coefficient, n-Octanol / Water**	*Not Available*
Melting Point and Freezing Point	*Not Available*	**Auto-ignition Temperature**	450 to 600°C
Initial Boiling Point and Boiling Range	*Not Available*	**Decomposition Temperature**	*Not Available*
Flash Point	None to 100°C	**Viscosity**	*Not Available*
Evaporation Rate	*Not Available*	**Flammability (solid, gas)**	20 – 70 g/m^3 (limits)
Vapour Density (air = 1)	*Not Available*	**Upper and Lower Flammability or Explosive Limit**	*Not Available*
Vapour Pressure	*Not Available*	**Sensitivity to Static/Impact**	Avoid Static Discharge

SECTION 10. STABILITY AND REACTIVITY

Reactivity	No data available.
Chemical Stability	Stable under normal storage conditions.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible Materials	Keep away from oxidizing agents.
Hazardous Decomposition Products	None under normal conditions. When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

__X__ Inhalation __X__ Skin contact __X__ Eye contact ___ Ingestion

Acute Toxicity	
LC50 (inhalation)	**Phenol, 4,4'-(1-methylethylidene)bis-,polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]** – LC50 – >5 mg/L (Rat) 4h **bisphenol-A-(epichlorhydrin) and epoxy resin** – LC50 – >5 mg/L (Rat) 4h **Carbon black** – LC50 – >4.6 mg/L (Rat) 4h

LD50 (oral)	**Phenol, 4,4'-(1-methylethylidene)bis-,polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]** – LD50 – >5000 mg/kg (Rat) **bisphenol-A-(epichlorhydrin) and epoxy resin** – LD50 – >5000 mg/kg (Rabbit) **Carbon black** – LD50 – >8000 mg/kg (Rat)
LD50 (dermal)	**Phenol, 4,4'-(1-methylethylidene)bis-,polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]** – LD50 – >5000 mg/kg (Rat) **bisphenol-A-(epichlorhydrin) and epoxy resin** – LD50 – >5000 mg/kg (Rabbit)
Notes	Not expected to be acutely toxic.
Skin Corrosion / Irritation	May be slightly irritating.
Serious Eye Damage / Irritation	May be slightly irritating.
Inhalation	May be slightly irritating to nose and throat (Mechanical).
STOT (Specific Target Organ Toxicity) - Single Exposure	Not expected.
Aspiration Hazard	Not reported.
STOT (Specific Target Organ Toxicity) - Repeated Exposure	Not reported.
Respiratory and/or Skin Sensitization	Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitizer and an irritant. Low molecular epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitization to other epoxies. Avoid skin and eye contact. Avoid inhalation of vapour or mist.
Carcinogenicity	Carbon black is suspected of causing cancer by IARC (Group 2B).
Reproductive Toxicity	
Development of Offspring	Not reported.
Sexual Function and Fertility	Not reported.
Effects on or via Lactation	Not reported.
Germ Cell Mutagenicity	Not expected to be a mutagen.
Interactive Effects	Not reported.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	Unknown ecotoxicity for mixture. Not expected to be hazardous.		
	Ingredient	**Species**	**LC/EC$_{50}$**
	All Available	Fish, Algae, Daphnia	>100 mg/L
Persistence and Degradability	*Not Available*		
Bioaccumulative Potential	*Not Available*		
Mobility in Soil	*Not Available*		
Other Adverse Effects	*Not Available*		

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods	Canadian Environmental Protection Act: All ingredients are listed in the DSL or are not required. Dispose of in accordance with all federal, provincial/state, and local regulations. Consult with your local supplier for additional information. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
Canadian TDG Regulations*					
49 CFR/DOT*					
IATA Regulations*					
IMDG Code*					
	*Not Regulated				

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations	Canadian Environmental Protection Act (CEPA): All components of this product are on the Canadian DSL. United States Inventory (TSCA): All components are listed or exempt.

SECTION 16. OTHER INFORMATION

Date of Creation	May 23, 2019
Date of Latest Revision	May 23, 2019
Notes	Health Material Information System (HMIS): Health: 2 Flammability: 0 Reactivity: 0 Physical Hazards: 0 HMIS Ratings: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe; * = Chronic Effects.
Disclaimer	This Safety Data Sheet (SDS) was prepared by iHazmat Regulatory Ltd., (www.iHazmat.com) using information and classifications provided by Emerald Coatings. All information in this SDS is offered for your consideration and guidance when working with this product and is accurate to the best of our knowledge. No guarantee can be made that the hazards described herein are the only hazards that exist.

SDS compliant with WHMIS 2015