Safety Data Sheet
Epoxy (Group A)

SECTION 1. IDENTIFICATION

Product Identifier	**Epoxy (Group A)**
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 1A** **REPRODUCTIVE TOXICITY – CATEGORY 1B**
Label Elements **Pictograms**	
Signal Word	**DANGER**
Hazard Statements	H350 – May cause cancer. H360 – May damage fertility or the unborn child.
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
Copper	7440-50-8	7 – 13%*	*Not Applicable*
Zinc Dust	7440-66-6	1 – 5%*	*Not Applicable*
2-Methylimidazole	693-98-1	0.1 – 1%*	*Not Applicable*
Crystalline Silica (Quartz) (resp.)	14808-60-7	<1%	*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. SKIN CONTACT: May cause irritation and redness. Hives, other allergic reactions. EYE CONTACT: May cause redness and/or tearing. INGESTION: Gastrointestinal distress. 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 or sand.
Unsuitable Extinguishing Media	Do not use water or foam.
Hazardous Combustion Products	May produce oxides of carbon 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	Sweep up material and dispose of properly. Avoid breathing any dust that might be generated. Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Observe label precautions. Close container after each use. Do not transfer contents to unlabeled containers. Wash thoroughly after handling and before eating or smoking. Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits. Keep away from open flames, hot surfaces and sources of ignition. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves. Combustible dust clouds may be created where operations produce fine material (dust). Avoid formation of significant deposits of material as they may become airborne and form combustible dust clouds. Build up of fine material should be cleaned using gentle sweeping or vacuuming in accordance with best practices. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.
Conditions for Safe Storage	Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	**ACGIH® TLV®**		**OSHA PEL**	
Copper	0.1 mg/m^3 (TWA) 8h	*Not Available*	1 mg/m^3 (TWA) 8h	*Not Available*
Crystalline silica (Quartz)	0.025 mg/m^3 (TWA) Respirable Fraction	*Not Available*	0.3 mg/m^3 (TWA) 8h total dust	0.05 mg/m^3 (TWA) 8h respirable fraction
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	Should any dust be generated, it should not be breathed. If a respirator is needed to meet applicable exposure limits, wear a properly fitted air-purifying respirator approved by NIOSH. Follow respirator manufacturer s directions for respirator use. Do not breathe dust. If respirator is required to meet applicable exposure limits, use a NIOSH approved TC-84A respirator in accordance with regulatory requirements (in the US follow OSHA standard 29CFR1910.134) and the respirator manufacturer's directions.
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	Gold Solid (Powder)	**Specific Gravity (Water = 1)**	1.54
Odour	*Not Available*	**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**	*Not Available*
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)**	*Not Available*
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 contact with water, strong alkalis, strong mineral acids or strong oxidizing agents; combustible hydrogen gas can be formed from these incompatibilities.
Incompatible Materials	Keep away from oxidizing agents. Keep out of high temperatures and direct sunlight.
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)	*Not Available*
LD50 (oral)	Barium Sulphate – LD50 – >5005 mg/kg (Rat) Iron Oxide – LD50 – 10000 mg/kg (Rat) Aluminium Hydroxide – LD50 – 5000 mg/kg (Rat) Crystalline Silica (Quartz) – LD50 – 500 mg/kg (Rat)
LD50 (dermal)	*Not Available*
Notes	Not expected to be acutely toxic.
Skin Corrosion / Irritation	May be irritating.
Serious Eye Damage / Irritation	Causes severe irritation.
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	IARC suspects Silica (Quartz) of being carcinogenic (Group 1) based on human data. IARC categorizes 2-methylimidazole as a Group 2 cacinogen. ACGIH suspects Silica (Quartz) of being carcinogenic (Group A2).
Reproductive Toxicity	
Development of Offspring	Yes.
Sexual Function and Fertility	Yes.
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. 85.98% of the mixture consists of components of unknown hazards to the aquatic environment.		
	Ingredient	**Species**	**LC/EC_{50}**
	Not Available	*Not Available*	*Not Available*
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	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLIC, N.O.S.	(COPPER)	9	III
49 CFR/DOT	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLIC, N.O.S.	(COPPER)	9	III
IATA Regulations	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLIC, N.O.S.	(COPPER)	9	III
IMDG Code	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLIC, N.O.S.	(COPPER)	9	III
	*MARINE POLLUTANT (COPPER)				

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: 1 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