



**Material Safety Data Sheet  
ZeraOrnate MF PART A**

**PRODUCT INFORMATION**

Manufacturer: Zeraus Products Inc.  
250 Rayette Road, Unit 18  
Vaughan, Ontario L4K 2G6

**PRODUCT INFORMATION**

Product Identifier: ZeraOrnate MF Part A  
Application and Use: Coloured Metallic Epoxy Coating  
Product Description: Two-component 100% solids Metallic Epoxy Coating (epoxy resin blend)

**HAZARD RATING SYSTEM (USA):**

Health: 2  
Flammability: 1  
Reactivity: 0

WHMIS Classification (Canada):  
Class D, Division 2, Subdivision B: irritant

**TRANSPORTATION OF DANGEROUS GOODS INFORMATION:**

Not Regulated  
Packing Group: PG III

**EMERGENCY TELEPHONE NUMBERS**

Business: (905) 761-9920                      24 Hours: (416) 574-5154

**LABEL PRECAUTIONS**

**COMBUSTIBLE LIQUID. CORROSIVE. HARMFUL IF SWALLOWED OR INHALED . SEVERE SKIN AND EYE IRRITANT.**

**Keep container closed.**  
**Use only with adequate ventilation**  
**Wash thoroughly after handling**  
**Avoid breathing vapours**  
**Avoid contact with eyes, skin and clothing**  
**Do not dispose down the drains**

**HAZARD INGREDIENTS**

<b>Ingredients</b>	<b>CAS#</b>	<b>%(weight)</b>	<b>LD/50 Route/Species</b>
Diglycidyl Ether of Bisphenol-A Epoxy	25068-38-6	60-100	30g/kg/Oral/rat
Alkyl (C12-C14) Glycidyl Ether	68609-97-2	1-5	31.6ml/kg/Oral/Rat 4500mg/kg/Skin/Rabbit

## PHYSICAL DATA

Physical State: Liquid  
Specific Gravity: 1.15  
Solubility in Water: Insoluble  
Boiling Point: n/av  
Freezing/Melting Point: n/av  
Viscosity: 3000 cps @ 23°C (73°F)

Evaporation Rate: n/av  
Volatile: (voc): less than 1 %  
Vapour Density: n/av  
Odour: pleasant citric odour  
Appearance: Transparent Metallic Coloured Liquid

## POTENTIAL HEALTH EFFECTS

### Effect of Overexposure:

**INHALATION:** Do not heat the material. Vapours or mist generated from heating the material or as from exposure in poorly ventilated areas are irritating and cause nasal discharge. Coughing and discomfort in nose and throat. Prolonged or repeated overexposure may result in lung damage.

**EYES:** Cause irritation, experienced as pain, with excess blinking and tear production, and seen as extreme redness and swelling of the eye and chemical burns of the eye.

**SKIN:** Causes severe skin irritation with pain, excess redness and swelling with chemical burns. It may cause skin sensitization. Other than the potential skin irritation, effects noted above acute (short term) adverse effects are not expected from brief skin contact.

**INGESTION: Acute (brief exposure):** Low toxicity causes irritation. **Chronic (prolonged exposure):** causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst and weakness.

**INGESTION: CHRONIC:** Refer to acute ingestion.

**Toxic effects or reproduction:** No  
**Teratogenicity:** No  
**Mutagenicity:** No  
**Carcinogenicity:** No

Acute or chronic exposure should be avoided as it will increase the toxicological problems mentioned in this section and may aggravate respiratory problems. Repeated skin contact may cause a persistent irritation or dermatitis. Repeated inhalation may cause lung damage.

## FIRST AID MEASURES

### Emergency procedures:

**INHALATION:** In the case of overexposure, remove to fresh air. Get medical attention if the victim is in respiratory distress.

**EYE CONTACT:** Flush eyes immediately with large amounts of running water for at least 15 minutes while holding eyelids open until irritation subsides. Do not attempt to neutralize with chemical agents. Obtain medical attention immediately.

**SKIN CONTACT:** Wash immediately with plenty of soap and water. Remove and clean all contaminated clothing and launder before reuse.

**INGESTION:** If swallowed, drink two glasses of water. Do not induce vomiting. The material is corrosive. Do not give anything to mouth to an unconscious person. Get prompt medical attention.

## PREVENTIVE MEASURES

**PERSONAL PROTECTION:** The selection of personal protective equipment varies depending upon conditions of use. When handling product wear long sleeves, chemical resistant gloves and safety glasses with side shields. Where splashing during mixing may occur wear full face shield. Where concentrations in air may exceed the occupational exposure limits and where engineering work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation. The respirators may not be necessary for handling the materials in outdoor environment. Eye wash station (sink) or shower facility near the job is recommended in case of emergency.

## ACCIDENTAL RELEASE MEASURES

### PROCEDURE IN CASE OF LEAKS:

Prevent spills from entering sewers, watercourses or low areas. Absorb with sand or other absorbent material. Residue may be removed with hot water and detergent. All precautions should be taken when cleaning the spill with solvent.

**ENVIRONMENTAL PRECAUTIONS:** Avoid discharge to sewers or waterways. Marine Pollutant (Very toxic to aquatic organisms)

**SPILL CONTROL AND DISPOSAL:** Dispose of sand and rinse water according to municipal, provincial or federal laws for disposal of chemicals.

## HANDLING AND STORAGE

**HANDLING STORAGE AND SHIPPING:** Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Do not handle or store near an open flame, sources of heat, or sources of ignition. Protect material from direct sunlight. This product will accumulate static charges which may cause an incendiary electrical discharge. Use proper grounding procedures. Empty product containers may contain product residue. **DO NOT REUSE.**

## FIRE AND EXPLOSION DATA

Flashpoint and Method: 31.7 C/ 89 F (T.C.C.)

Auto ignition Temperature: Not applicable

Flammable Limits: Not Available

**GENERAL HAZARDS:** Combustible liquid; may release vapours that form combustible mixtures at or above the flash point. Toxic gases will form upon combustion.

**FIRE FIGHTING:** Wear NIOSH-approved self-contained breathing apparatus with independent air supply. Wear complete body protective butyl rubber clothing. Personnel in vicinity and downwind should be evacuated.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, and carbon monoxide, various hydrocarbons, phenol.

## REACTIVITY DATA

**GENERAL:** This product is stable and hazardous polymerization will not occur under normal conditions.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:** Excessive heating. Avoid contact with strong acids and alkalis.

**HAZARDOUS DECOMPOSITION:** carbon monoxide, phenol

**PREPARATION**

Prepared By: A. Zaghoul  
Zeraus Products Inc.  
250 Rayette Road, Unit 18  
Vaughan, Ontario L4K 2G6  
**March 2015**

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**Material Safety Data Sheet  
ZeraOrnate MF PART B**

**PRODUCT INFORMATION**

Manufacturer: Zeraus Products Inc.  
250 Rayette Road, Unit 18  
Vaughan, Ontario L4K 2G6

**PRODUCT INFORMATION**

Product Identifier: ZeraOrnate MF Part B  
Application and Use: Metallic Epoxy floor  
Product Description: Two-component 100% solids Epoxy Coating (Amine curative)

**HAZARD RATING SYSTEM (USA):**

Health: 3  
Flammability: 1  
Reactivity: 0

**WHMIS Classification (Canada):**

Class D-2B  
Class E, corrosive

**TRANSPORTATION OF DANGEROUS GOODS INFORMATION:**

Amines, liquid, Corrosive, N.O.S. (Amino Terminated Polyether)  
Hazard Class: 8  
ID Number: UN 2735  
Packing Group: 111

**EMERGENCY TELEPHONE NUMBERS**

Business: (905) 761-9920                      24 Hours: (416) 574-5154

**LABEL PRECAUTIONS**

**CORROSIVE MATERIAL. HARMFUL IF SWALLOWED. TOXIC BY INHALATION. CAN CAUSE EYE AND SKIN BURN. MAY CAUSE SENSITIZATION.**

- Keep container closed.**
- Use only with adequate ventilation**
- Wash thoroughly after handling**
- Avoid breathing vapours**
- Avoid contact with eyes, skin and clothing**
- Keep away from children**

**HAZARD INGREDIENTS**

Amino Terminated Polyether	9046-10-0	20-40	LD50-1660mg/kg(Rat-Oral) 760mg/kg (Rabbit Skin)
Nonyl Phenol	25154-52-3	10-30	LD50-1620mg/kg(Rat-Oral) LD-50 4000mg/kg (Rabbit Skin)

Benzyl Alcohol	100-51-6	0-15	LD50 – 1230 mg/Kg. (Rat-Oral)
N-Amino Ethyl Piperazine	140-31-8	7-13	LD50- 2140mg/kg(Rat-Oral)
Benzene-1,3-Dimethaneamine	1477-55-0	15-30	
Epoxy Polyamine Adduct	N/A	10-30	LD50-Not Available LC50-Not Available
Isophorone Diamine	2855-13-2	2-10	LD50 – 1030mg/Kg. (Rat-Oral) LC50 – 4600 mg/m <sup>3</sup> (Rat-Inh.)

### PHYSICAL DATA

Physical State: Liquid	Viscosity: 100 cps 23°C (73°F)
Specific Gravity: 0.97	Vapour Density: n/av
Vapour Pressure: n/av	Evaporation Rate: n/av
Solubility in Water: Slight	Volatile: (voc): zero%
Boiling Point: n/av	Odour: Characteristic amine odour
Freezing/Melting Point: n/av	Appearance: Clear
	Hazardous Air Pollutant: None

### POTENTIAL HEALTH EFFECTS

#### **Effect of Overexposure:**

**INHALATION:** Harmful if inhaled, may affect the nervous system, causing dizziness, headache, or nausea. May cause lung irritation. May cause allergic respiratory reaction.

**EYE CONTACT:** can cause eye burns.

**SKIN CONTACT:** can cause skin burns. Can cause allergic skin reaction and sensitization.

**INGESTION:** Swallowing may cause severe burns to the mouth, throat and stomach. May cause vomiting, nausea and dizziness. Loss of consciousness may occur. Drowsiness may occur. Weakness and incoordination may occur.

<b>Toxic effects or reproduction:</b>	<b>No</b>
<b>Teratogenicity:</b>	<b>No</b>
<b>Mutagenicity:</b>	<b>No</b>
<b>Carcinogenicity:</b>	<b>No</b>

**Acute or Chronic Exposure:** Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in adverse eye effects, adverse skin effect. Dryness of nasal passages may be experienced when material is inhaled over a long period of time.

### FIRST AID MEASURES

#### **Emergency procedures:**

In the event of an emergency, remove the victim from further exposure, send for medical assistance, and initiate the following emergency procedures:

**INHALATION:** If inhaled, remove victim to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

**EYE CONTACT:** Flush with water for at least 15 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Get medical attention. If medical care is not promptly available, continue to irrigate for one hour.

**SKIN CONTACT:** Immediately remove contaminated clothing. Wash with soap and water and maintain gentle and continuous irrigation for 15 minutes. Launder contaminated clothing before reuse. Contact a physician if irritation develops.

**INGESTION:** Give two glasses of water. Get medical attention immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and as the clinical condition of the patient.

### PREVENTIVE MEASURES

**PERSONAL PROTECTION:** The selection of personal protective equipment varies depending upon conditions of use. When handling product wear long sleeves, chemical resistant gloves and safety glasses with side shields. Where splashing during mixing may occur wear full face shield. Where concentrations in air may exceed the occupational exposure limits and where engineering work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation. The respirators may not be necessary for handling the materials in outdoor environment. Eye wash station (sink) or shower facility near the job is recommended in case of emergency.

### ACCIDENTAL RELEASE MEASURES

#### **PROCEDURE IN CASE OF LEAKS:**

Extinguish and eliminate source of ignition until area is determined to be free from explosion or fire hazards. Prevent spills from entering sewers, watercourses or low areas. Absorb with sand or other absorbent material (do not use sawdust). Residue may be removed with hot water and detergent. Flush small spills with water.

**ENVIRONMENTAL PRECAUTIONS:** The product is toxic to aquatic life in liquid form. Avoid discharge to sewers or waterways.

**SPILL CONTROL AND DISPOSAL:** Dispose of sand and rinse water according to municipal, provincial or federal laws for disposal of chemicals.

### HANDLING AND STORAGE

**HANDLING STORAGE AND SHIPPING:** Keep container closed. Wear personal protective equipment. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Keep away from heat, sparks, open flames and oxidizing agent. Protect material from direct sunlight. This product will accumulate static charges, which may cause an incendiary electrical discharge. Use proper grounding procedures. Empty product containers may contain product residue. **DO NOT REUSE.**

### FIRE AND EXPLOSION DATA

Flashpoint and Method: 75 °C (T.C.C.)

Auto ignition Temperature: 350°C

Flammable Limits: 1.1 - 7% by volume

**GENERAL HAZARDS:** Flammable liquid; may release vapour that form combustible mixtures at or above the flash point. Toxic gases will form upon combustion.

**FIRE FIGHTING:** Personnel in vicinity and downwind should be evacuated. Fire fighters should wear approved self contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION PRODUCTS:** May generate toxic or irritating combustion products. Ammonia, carbon monoxide and/or carbon dioxide and oxides of Nitrogen.

## REACTIVITY DATA

**GENERAL:** This product is stable and hazardous polymerization will not occur under normal storage conditions.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:** Excessive heating, sparks and open flames. Avoid contact with strong oxidizing agents.

**HAZARDOUS DECOMPOSITION:** Irritating and toxic fumes at elevated temperatures. Ammonia when heated. Oxides of nitrogen. Organic acid vapours. Nitric acid. Nitrosamines. Nitrogen oxides can react with water vapours to form corrosive nitric acid. Carbon monoxide and/or dioxide. May generate ammonia gas.

## PREPARATION

Prepared By: A. Zaghoul  
Zeraus Products Inc.  
250 Rayette Road, Unit 18  
Vaughan, Ontario L4K 2G6  
**March 2015**

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