



**Material Safety Data Sheet
ZeraPatch SL PART A**

PRODUCT INFORMATION

Manufacturer: Zeraus Products Inc.
124 Connie Crescent, Unit 3
Concord, Ontario L4K 1L7

PRODUCT INFORMATION

Product Identifier: ZeraPatch SL Part A
Product Description: Three-component 100% solids Concrete Epoxy Patching Material
Product Description: Three-component 100% solids Epoxy Self-Levelling Patching Materials (epoxy blend)

HAZARD RATING SYSTEM (USA):

Health: 3
Flammability: 1
Reactivity: 0

WHMIS Classification (Canada):

Class E: Corrosive
Class D, Division 2, Subdivision B: irritant

TRANSPORTATION OF DANGEROUS GOODS INFORMATION:

Combustible Liquid, Corrosive, contains 4-nonylphenol
Hazard Class: 8
ID Number: UN 3145
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 . 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**
- Keep away from children**
- Do not dispose down the drains**

HAZARDOUS INGREDIENTS

Ingredients	CAS#	%(weight)	LD/50 Route/Species
Diglycidyl Ether of Bisphenol-A	25068-38-6	30-60%	30g/kg(Rat-Oral)
Alkyl (C12-C14) Glycidyl Ether Skin)	68609-97-2	1-5%	10.4-.31.6ml/kg(Rat-Oral) >4500mg/kg(Rabbit

Aromatic Hydrocarbon	64742-94-5	5-10%	LD50- Not available
Nonyl Phenol	25154-52-3	1-5%	LD50- (Rat-Oral) 1620 mg/Kg
Petroleum Distillates	64741-81-7	10-30	LD50-N/A

PHYSICAL DATA

Physical State: Liquid	Evaporation Rate: n/av
Specific Gravity: 1.24	Volatile: (voc): less than 1 %
Solubility in Water: Insoluble	Vapour Density: n/av
Boiling Point: n/av	Odour: pleasant citric odour
Freezing/Melting Point: n/av	Appearance: Brown Limestone
Viscosity: 3000 cps @ 23°C (73°F)	

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.

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.
124 Connie Crescent, Unit 3
Concord, Ontario L4K 1L7
January 2010



**Material Safety Data Sheet
ZeraPatch SL PART B**

PRODUCT INFORMATION

Manufacturer: Zeraus Products Inc.
124 Connie Crescent, Unit 3
Concord, Ontario L4K 1L7

PRODUCT INFORMATION

Product Identifier: ZeraPatch SL Part B

Product Description: Three-component 100% solids Concrete Epoxy Patching Material

Product Description: Three-component 100% solids Epoxy Self-Levelling Patching Materials (amine blend)

HAZARD RATING SYSTEM (USA):

Health: 3

Flammability: 1

Reactivity: 0

Regulatory Classification:

WHMIS Information: Class E, Class D1B, Class D2B

Transportation of Dangerous Goods Information

Corrosive liquids, n.o.s. (Tetraethylenepentamine)

Class 8, UN3267, P.G. II

EMERGENCY TELEPHONE NUMBERS

Business: (905) 761-9920

24 Hours: (416) 574-5154

LABEL PRECAUTIONS

CRROSIVE MATERIAL. HARMFUL IF SWALLOWED. CAN CAUSE EYE AND SKIN BURN. MAY CAUSE SENTIZATION.

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

HAZARDOUS INGREDIENTS

N-Aminoethyl Piperazine	140-31-8	3-10	LD50-2150gm/kg (Oral-Rat) LC50-8mg/kg (Rabbit-Skin)
Nonyl Phenol	25154-52-3	10-20	LD50-1231mg/kg (Mouse-Oral) LC50-2140mg/kg (Rabbit-Skin)
Tris 2,4,6 -Dimethyl Aminomethyl Phenol	90-72-2	1-5	LD50-1200mg/kg (Oral-Rat) LC50-N/A
Amino Terminated Polyether	9046-10-0	15-40	LD50-1660mg/kg(Rat-Oral) 760mg/kg (Rabbit Skin)

Diethyltoluenediamine	68479-98-1	0-5	NA
Phenalkamine	Mixture	3-7	LD50-N/A
Triethylene Tetramine	112-24-3	1-5	LD50-2500gm/kg (Oral-Rat) LC50-805mg/kg (Rabbit-Skin)
Benzyl Alcohol	100-51-6	1-5	LD50-1230gm/kg (Oral-Rat)

PHYSICAL DATA

Physical State: Liquid
 Specific Gravity: 1.0
 Vapour Pressure: 0.70mm Hg @ 21°C (70°F)
 Solubility in Water: Slight (0.1-1%)
 Boiling Point: n/av
 Freezing/Melting Point: n/av
 Viscosity: Gel
 Vapour Density: n/av
 Evaporation Rate: n/av
 % Volatile: (voc): 10gm./l
 Odour: Characteristic amine
 Appearance: dark red wine colour

POTENTIAL HEALTH EFFECTS

Effect of Overexposure:

INHALATION: Irritating to respiratory tract. Coughing and chest pain may result if inhaled directly.

EYE CONTACT: Contact of undiluted product with the eyes quickly causes irritation and pain and may cause burns, necrosis and permanent injury.

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.

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. 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. Use the product with an adequate ventilation or outdoor. 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: Avoid all skin contact. Avoid breathing vapours of heated materials. Keep away from sun, heat, sparks and open flame. Wash thoroughly after handling.

FIRE AND EXPLOSION DATA

Flashpoint and Method: $>100^{\circ}\text{C}$ (T.C.C.)

Autoignition Temperature: Not available

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: 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, oxides of carbon (CO, CO₂) and oxides of Nitrogen.

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 acids.

HAZARDOUS DECOMPOSITION: None under normal storage conditions.

PREPARATION

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March 2008

P.S. The product is not harmful for the intended uses after fully cured (3 part) and dried to a plastic-like material. It is harmful only in the liquid form, caution is advised in handling the product.

ZERAUS PRODUCTS INC.

Material Safety Data Sheet

ZeraPatch SL PART C

PRODUCT INFORMATION

Manufacturer: Zeraus Products Inc.
Richmond Hill, Ontario L4C 0C9

PRODUCT INFORMATION

Product Identifier: ZeraPatch SL Part C (Filler)

Product Description: Three-component 100% solids Concrete Epoxy Patching Material

Product Description: Three-component 100% solids Epoxy Self-Levelling Patching Materials (aggregate blend)

HAZARD RATING SYSTEM (USA):

Health: 1

Flammability: 0

Reactivity: 0

WHMIS Classification (Canada):

Class D Division 2 Subdivision A (Silica Quartz)

TRANSPORTATION OF DANGEROUS GOODS INFORMATION:

Not Regulated

EMERGENCY TELEPHONE NUMBERS

Business :(905) 780-5858 24 Hours:(905) 780-5858

LABEL PRECAUTIONS

AGGREGATE (SILICA SAND) BLEND. NOT CONTROLLED SUBSTANCE.
CONTAINS CRYSTALLINE SILICA (QUARTZ) DUST PARTICLES WHICH MAY CAUSE LUNG DISEASE
(SILICOSIS)

Wear dust mask during handling the material.

PHYSICAL DATA

Physical State: Solid

Specific Gravity: 2.20

Vapour Pressure: Not applicable

Solubility in Water: Insoluble in water

Boiling Point: Not applicable

Viscosity: Not applicable

Vapour Density (AIR=1): Not applicable

Evaporation Rate: Not applicable

% Volatile: Not applicable

Odour: None

Appearance: flour

POTENTIAL HEALTH EFFECTS

INHALATION: Crystalline Silica (Quartz) dust particles below 5 micron in diameter may be present in this product. Excessive long term inhalation of particles of this size (or smaller) may cause the lung disease (Silicosis). The prolonged inhalation of dust may result in shortness of breath. May be irritating to mucous membranes and respiratory tract.

EYE CONTACT: No effect except as mechanical irritant.

SKIN CONTACT: No effect.

INGESTION: No known effect.

CHRONIC: Excessive exposure to crystalline silica dust particles (below 5 micron in diameter) could lead to the development of the irreversible lung disease "Silicosis". IARC Classification - Crystalline silica is classified by IARC as "2A probably Carcinogenic to humans".

FIRST AID MEASURES

INHALATION: Remove victim to fresh air. Consult a physician if adverse effects occur.

EYE CONTACT: Flush eye(s) with plenty of water for 15 minutes holding eyelids open. If irritation persists see physician.

SKIN CONTACT: Flush with water.

INGESTION: None.

PREVENTIVE MEASURES

An approved dust mask for crystalline silica dust must be worn when mixing the unit. Also instruct workmen to wear safety glasses with eye shields, latex gloves. Good personal hygiene practices are a mandatory requirement to prevent accidental ingestion of silica through eating, smoking, etc. No engineering controls are necessary when product is used in small quantities.

ACCIDENTAL RELEASE MEASURES

SPILL CONTROL AND DISPOSAL: Sweep up with dust retarding floor sweeping compound. Dispose of as normal waste. No special precautions required.

HANDLING AND STORAGE

HANDLING, STORAGE AND SHIPPING: Product should be stored under normal warehouse conditions. No water should be allowed to contaminate aggregate.

FIRE AND EXPLOSION DATA

None. Non-combustible material.

REACTIVITY DATA

Stable. Hazardous Decomposition will not occur.

PREPARATION

Prepared By: A. Zaghoul
Zeraus Products Inc.
124 Connie Crescent, Unit 3
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January 2010

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