

1. IDENTIFICATION

- 1.1 Product identifier
 Trade name : **PSC 2102 Water-based Epoxy Coating Part A**
 Chemical name : Epoxy resin water soluble.
- 1.2 Recommended use of the product and restrictions on use
 Recommended use : Industrial Use, Raw material for Coatings for concrete floors
 Non- recommended use(s) : None known
- 1.3 Details of the supplier of the safety data sheet
 Company : Polymer Science Corporation.
 : Unit 1133, 6027 – 79 Avenue S.E
 : Calgary, Alberta. Canada T2C 5P1
 Telephone : 403 287 2751
 Fax : 403 287 2766
 Website : www.polymersciencecorp.com
- 1.4 Emergency telephone number
 Emergency : In case of emergency call CANUTEC: 613-996-6666

2. HAZARD IDENTIFICATION

- 2.1 Classification of the mixture
 2.1.1 Health Hazards
 Skin corrosion : Category 2
 Eye Irritation : Category 2A
 Skin sensitizer : Category 1B
 2.1.2 Environmental Hazards
 Aquatic Environment Acute Hazard: : Category 2
 Aquatic Environment Chronic Hazard: : Category 2
- 2.2 Label Elements
 Symbol :



Signal word : Warning

Hazard Statements : Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction
 Toxic to aquatic life
 Toxic to aquatic life with long lasting effects

Precautionary Statements : Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves / protective clothing / eye protection / face protection
 Avoid breathing dust / fumes / gas / mist / vapors / spray
 Contaminated work clothing should not be allowed out of the workplace
 Avoid release to the environment.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Water-based Epoxy coating Part A

HAZARDOUS INGREDIENTS	C.A.S.#	WEIGHT %
Reaction product: Bisphenol A-(epichlorhydrin); epoxy resin	25068 - 38 - 6	10 - 15
Formaldehyde, polymer with 2-(chloromethyl) oxirane and phenol	9003 – 36 - 5	5 - 15
Formaldehyde	50-00-0	<0.005

4 FIRST AID MEASURES

EYE CONTACT:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention
SKIN CONTACT:	If on skin or hair, take off immediately all contaminated clothing and shoes. Rinse skin, washing thoroughly with soap and water. Wash contaminated clothing before use. If skin irritation occurs get medical attention. Wash clothes before reuse.
INHALATION:	IF INHALED: Remove person to fresh air. Keep at rest. Call a POISON CENTER or doctor if you feel unwell.
INGESTION:	IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor / physician. DO NOT induce vomiting.

Notes to Physician.

No specific measures have been identified.

5 FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media
Suitable extinguishing media : Dry powder, Carbon dioxide (CO₂), Foam. Water Spray
Unsuitable extinguishing media : High volume water jet.
- 5.2 Protective Equipment
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing.
- 5.3 Fire-fighting instructions:
Cool containers with flooding quantities of water until well after fire is out to minimize the risk of rupture. Evacuate area of unprotected personnel. Use full protective apparel and self-contained breathing apparatus pressure-demand, MSHA/NIOSH (or equivalent) and full protective gear.

6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures.
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes, or clothing. Keep people away from and upwind of spill / leak. Evacuate personnel to safe areas, depending on the size of the spill, site conditions, and ambient temperature. Notify managements. Call CANUTEC: 613-996-6666 for assistance and advice.
- 6.2 Environmental precautions
Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained
- 6.3 Methods and materials for containment and cleaning up
Contain spill with dike if necessary. Absorb in suitable inert material. Sweep or scoop up using non-sparking tools. Place into a suitable container for disposal. After removal, flush spill area with soap and water to remove trace residue.

7 HANDLING AND STORAGE

- 7.1 Precautions for safe handling
Avoid all personal contact. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust / fume / gas / mist / vapor / spray. Use only with adequate ventilation. Provide good ventilation of the working area (local exhaust ventilation if necessary). Keep away from heat, sparks, flame and other sources of ignition.
- 7.2 Hygiene considerations.
Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Wash contaminated clothes before reuse. Do not eat, drink or smoke when handling this product. Remove contaminated clothing and protective equipment before entering eating areas. Avoid all contact.
- 7.3 Safe storage procedures
Keep away from heat. Keep containers tightly closed in a dry well ventilated place. Empty containers retain product residue and can be hazardous. Keep / store only in original container. Storage Temperature: Minimum 5 °C, Maximum 25 °C. Storage period 6 months after receipt of material by customer. Store separate from food products.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

Hazardous Components (Chemical Name)	ACGIH TLV	OSHA PEL	NIOSH IDLH	Alberta
Formaldehyde, polymer with 2-(chloromethyl) oxirane and phenol	Not Available	Not Available	Not Available	Not Available
Isophoronediamine- di-imine	Not Available	Not Available	Not Available	Not Available
Formaldehyde	0.3 ppm (Ceiling)	0.75 ppm (TWA) 2 ppm (STEL) 2 ppm STEL 15 min 0.5 ppm Action Level	Not Established	Not Established

8.2 EXPOSURE CONTROLS

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust ventilation as necessary to control airborne vapors, aerosols (e.g., dusts, mists) and thermal decomposition products. Heating may result in generation of airborne vapors and/or aerosols.

Respiratory Protection

If vapors form, respiratory protection is recommended., The use of a positive pressure supplied air respirator is recommended if the airborne concentration

is unknown or if spraying is performed in a confined space or area with limited ventilation., In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

Recommended

Full Face Mask with organic vapor cartridge, Type A filter (BP> 65 °C)

Hand Protection

Nitrile or fluorinated rubber gloves. Consider the porosity and elasticity data of the glove manufacturer and the specific conditions in the work place.

Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

Gloves for repeated or prolonged exposure – non exhaustive list:

Butyl rubber (VB), thickness:> 0.30 mm, break through time: up to 480 min.

Gloves for short term exposure / splash protection – non exhaustive list:

Nitrile rubber (NBR), thickness: 0.38 mm, break through time: up to 240 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not Suitable gloves – non exhaustive list:

Natural rubber (NRL), thickness: 0.12 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Eye Protection

Chemical safety goggles or safety glasses with side-shields., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

Skin Protection

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact., Where spray mist/vapor is anticipated, permeation resistant clothing is recommended.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State : Liquid.

Color : white

Odor : mild

Properties

Vapor Pressure : No information available

Vapor Density : No information available

Boiling Point : No information available

Melting Point : No information available

Flash Point : No information available

PH : No Information available

Density : 1.06 g/ cm³

Viscosity : No information available

VOC content : No information available

Evaporation rate : No information available

Solubility in water : Negligible

10 STABILITY AND REACTIVITY

Reactivity : No information available.

Chemical Stability : Stable under normal conditions

Incompatible Materials : None known.

Hazardous Polymerization : Will not occur.

Conditions to avoid : Avoid high temperatures.

Hazardous decomposition products: Carbon dioxide (CO₂), Carbon monoxide (CO).

11 TOXICOLOGICAL INFORMATION

11.1 Toxicity

Ingredient Name	Oral LD50	Dermal LD50	Inhalation LC50
By analogy with a product of similar composition	Acute LD50 >2000 mg/kg 14 day (rat)	Acute LD50 >2000 mg/kg (rabbit)	Acute LC50 >5 mg/l (Dust / Mist) (rat)

11.2 Skin Corrosion and / or irritation

Irritating

11.3 Eye Damage or irritation

Irritating

11.4 Respiratory and skin sensitization.

Sensitizing on skin
No data on respiratory sensitization. Aqul

11.5 Repeated Dose Toxicity

90-Day Repeated Dose Oral (Dietary) Toxicity in the Rat (OCED TG 408) 90 Day: 4000 mg/kg Actual NOEL

11.6 Genotoxicity

No data.

11.7 Carcinogenicity

No data.

11.8 Reproductive Toxicity

Not Available

11.9 Specific Target Organs Effect

Not information available.

12 ECOLOGICAL INFORMATION

Toxicity, Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil, Other Adverse Effects.

All ecological information provided was conducted on a structurally similar product. Toxic to aquatic life. Toxic to aquatic life with long lasting effects. This material is not readily biodegradable.

Algae Test Results

Test: Growth Inhibition (OECD 201)

Duration: 72

Species: Pseudokirchneriella subcapitata

> 18.4 mg/l ErC50 Highest concentration tested based on TWA exposure concentrations

> 18.4 mg/l EbC50 Highest concentration tested based on TWA exposure concentrations

EC50 < 10 mg/l. Green Algae (Chlorella pyrenoidosa)

Toxicity to Fish

LC50 3.6 mg/l. Rainbow Trout (Oncorhynchus mykiss) (96h)

Toxicity to Water Flea

EC50 2.8 mg/l. Daphnia sp.(Other)(48h)

Degradation

Test: Closed Bottle (OECD 301D)

Duration: 28 Procedure: Ready biodegradability

0% This material is not readily biodegradable

Results of PBT and vPvB Assessment

Not determined.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Method

Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system. Do not contaminate pond, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Empty containers retain product residue (dust, liquid, vapor, and / or gases) and can be dangerous. Do not heat or cut container with electric or gas torch.

14 TRANSPORTATION INFORMATION

14.1 Identification, UN number : UN 3082

14.2 Shipping Name : Environmentally Hazardous Substance, Liquid, N.O.S.

14.3 Hazard Class : 9

14.4 Packing Group : III

Marine Pollutant.

Technical Name (N.O.S.) : Epoxy Resin

Comments: Requirements specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

15 OTHER INFORMATION

Preparation Date : June 14, 2017

SDS prepared by : Polymer Science Corp. 403 287 2751

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