Safety Data Sheet

Issue Date: 21-May-2013 **Revision Date:** 13-Mar-2014 **Version** 1

1. IDENTIFICATION

Product Name **PC CONCRETE EPOXY, PART B**

MSDS # **130521-38-CA**

UN/ID No UN1760

Recommended Use Adhesives.

Supplier Address
Protective Coatings Co.
221 S Third St.
Allentown, PA 18102 USA

Company Phone Number 610-432-3543 / 800-220-2103

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Causes severe skin burns and eye damage
May cause an allergic skin reaction
Contains a known or suspected reproductive toxin
May be harmful if swallowed

Appearance Black paste **Physical State** Paste. **Odor** Slight amine

Potential Health Effects

Acute Toxicity

Eyes Causes severe eye damage.

Skin Contact causes severe skin irritation and possible burns.

Inhalation May cause irritation if inhaled.

Ingestion May be harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Chronic effects No known effect based on information supplied.

Symptoms May cause respiratory irritation. May cause skin and eye irritation. Ingestion may cause severe burns to mouth, throat or stomach.

Aggravated Medical Conditions None known.

Environmental Hazard See Section 12: ECOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	59.1
Liquid polyamide resin	68082-29-1	10-30
Nonyl phenol	84852-15-3	3-7
2,4,6-tri(dimethylaminomethyl)phenol	90-72-2	3-7
Silica, Quartz	14808-60-7	1-5
Ethylene glycol	107-21-1	0.1-1.0

4. FIRST-AID MEASURES

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

Skin Contact Wash with soap and water. Remove and wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

Notes to Physician Skin and eye conditions may be aggravated by long term exposure.

5. FIRE-FIGHTING MEASURES

Flammable properties Not flammable.

Flash Point > 200 °F / > 93 °C

Suitable Extinguishing Media Dry chemical, CO2 or water spray.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO2). Aldehydes. Nitrogen oxides (NOx).

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not release runoff from fire control methods to sewers or waterways. NFPA Class IIIB.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Wear protective gloves/protective clothing and eye/face protection. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Dispose of contents/container to an approved waste disposal plant.

7. HANDLING AND STORAGE

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wear appropriate personal protective equipment. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8.

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Canada - Alberta - Occupational Exposure Limits - Ceilings	Canada - British Columbia - Occupational Exposure Limits - Ceilings	Canada - Manitoba - Occupational Exposure Limits - Ceilings	Canada - New Brunswick - Occupational Exposure Limits - Ceilings	Canada - Newfoundland & Labrador - Occupational Exposure Limits - Ceilings
Silica, Quartz 14808-60-7 (1-5)	TWA: 0.025 mg/m^3 respirable fraction	(vacated) TWA: 0.1 mg/m^3 respirable dust : (30)/(%SiO2 + 2) mg/m^3 TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m^3 TWA respirable fraction	IDLH: 50 mg/m^3 respirable dust TWA: 0.05 mg/m^3 respirable dust	TWA: 0.025 mg/m^3	TWA: 0.025 mg/m^3	-	-	-
Ethylene glycol 107-21-1 (0.1-1.0)	Ceiling: 100 mg/m^3 aerosol only	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m^3	-	Ceiling: 100 mg/m^3	TWA: 10 mg/m^3 STEL: 20 mg/m^3 Ceiling: 100 mg/m^3 Ceiling: 50 ppm	100 mg/m^3 Ceiling	100 mg/m^3 Ceiling	100 mg/m^3 Ceiling

Component	Canada - Northwest Territories - Occupational Exposure Limits - Ceilings	Canada - Nova Scotia - Occupational Exposure Limits - Ceilings	Canada - Nunavut - Occupational Exposure Limits - Ceilings	Canada - Ontario - Occupational Exposure Limits - Ceilings	Canada - Prince Edward Island - Occupational Exposure Limits - Ceilings	Canada - Quebec - Occupational Exposure Limits - Ceilings	Canada - Saskatchewan - Occupational Exposure Limits - Ceilings	Canada - Yukon - Occupational Exposure Limits - Ceilings
Ethylene glycol 107-21-1 (0.1-1.0)	50 ppm Ceiling 127 mg/m^3 Ceiling	100 mg/m^3 Ceiling	50 ppm Ceiling 127 mg/m^3 Ceiling	100 mg/m^3 Ceiling	100 mg/m^3 Ceiling	50 ppm Ceiling 127 mg/m^3 Ceiling	100 mg/m^3 Ceiling	-

Other Information

If product is sanded, appropriate respirator should be worn to avoid breathing dust. Pre-existing respiratory disorders may be aggravated by exposure. If sanded, this material may generate silica / titanium dust. Inhaled silica / titanium has been classified by IARC as a human carcinogen (see section 11).

Engineering Controls

Provide general or local exhaust ventilation if product is sanded or ground.

Personal protective equipment (PPE)

Skin and Body Protection

Wear protective gloves and protective clothing.

Eye/Face Protection

Wear protective eyeglasses or chemical safety goggles.

Respiratory Protection

Ensure adequate ventilation, especially in confined areas. If engineering controls do not maintain airborne concentrations below recommended exposure limits, a NIOSH/MSHA approved respirator must be worn.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Paste		
Appearance	Black paste	**Odour**	Not determined
Odour Threshold	Not determined	**Colour**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not determined	
Melting Point/Freezing Point	Non disponible	
Boiling Point/Boiling Range	Not determined	
Flash Point	> 93 °C / > 200 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapour Density	Not determined	
Relative Density	Not determined	
Vapour Pressure	Not determined	
Water Solubility	Insoluble in water	
Solubility in other solvents	alcohols	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidising Properties	Not determined	
Density	8.4 lbs./ gallon	

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Materials Strong acids, peroxides, and other oxidizing agents.

Conditions to Avoid None known based on information supplied.

Hazardous Decomposition Products None known based on information supplied.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information .

Inhalation May cause irritation if inhaled.

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Ingestion May be harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-(2-Aminoethyl) piperazine	= 2140 mg/kg (Rat)	= 880 mg/kg (Rabbit)	
Nonyl phenol	= 580 mg/kg (Rat)	= 2031 mg/kg (Rabbit)	
2,4,6-tri(dimethylaminomethyl)phenol	= 1000 mg/kg (Rat)	= 1280 mg/kg (Rat)	
Silica, Quartz	= 500 mg/kg (Rat)		
Ethylene glycol	= 4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	

Chronic toxicity

Carcinogenicity Silica (quartz) is a possible carcinogen when it appears as a respirable dust.

Chemical Name	ACGIH	IARC	NTP	OSHA
Silica, Quartz	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Sensitization May cause an allergic skin reaction.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Target organ effects None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Chemical Name	Algae/aquatic plants	Fish	Crustacea
1-(2-Aminoethyl) piperazine	495: 72 h Pseudokirchneriella subcapitata mg/L EC50	1950 - 2460: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 100: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	32: 48 h Daphnia magna mg/L EC50
Nonyl phenol	0.36 - 0.48: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.16 - 0.72: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 1.3: 72 h Desmodesmus subspicatus mg/L EC50	0.135: 96 h Pimephales promelas mg/L LC50 flow-through 0.1351: 96 h Lepomis macrochirus mg/L LC50 flow-through	0.14: 48 h Daphnia magna mg/L EC50

Ethylene glycol	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14 - 18: 96 h Oncorhynchus mykiss mL/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static	46300: 48 h Daphnia magna mg/L EC50

Mobility .

Chemical Name	Partition Coefficient
Ethylene glycol	-1.93

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes Contact your supplier or a licensed contractor for detailed recommendations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Nonyl phenol - 84852-15-3		Included in waste stream: K060		
2,4,6-tri(dimethylaminomethyl)phenol - 90-72-2		Included in waste stream: K060		

14. TRANSPORT INFORMATION

DOT Consumer commodity (If shipped in NON BULK packaging by ground transport)
- **UN/ID No** UN1760
- **Proper Shipping Name** Corrosive Liquids, n.o.s (aminoethylpiperazine, nonylphenol)
- **Hazard Class** 8
- **Packing Group** III

IATA
- **UN/ID No** UN1760
- **Proper Shipping Name** Corrosive Liquids, n.o.s (aminoethylpiperazine, nonylphenol)
- **Hazard Class** 8
- **Packing Group** III

IMDG
- **UN/ID No** UN1760
- **Proper Shipping Name** Corrosive Liquids, n.o.s (aminoethylpiperazine, nonylphenol)
- **Hazard Class** 8
- **Packing Group** III
- **Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

TDG
- **UN/ID No** UN1760
- **Proper Shipping Name** Corrosive Liquids, n.o.s (aminoethylpiperazine, nonylphenol)
- **Hazard Class** 8
- **Packing Group** III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Water	Present	X		Present			X	Present	X	X
Liquid polyamide resin	Present	X				Present	X	Present	X	X
Nonyl phenol	Present	X		Present		Present	X	Present	X	X
2,4,6-tri(dimethylaminomethyl)phenol	Present	X		Present		Present	X	Present	X	X
Silica, Quartz	Present	X		Present		Present	X	Present	X	X
Ethylene glycol	Present	X		Present		Present	X	Present	X	X

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Not determined

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Silica, Quartz	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania
1-(2-Aminoethyl) piperazine	X	X	X
Silica, Quartz	X	X	X
Ethylene glycol	X	X	X

International Regulations

Chemical Name	Carcinogenicity	Exposure Limits
Silica, Quartz		Mexico: TWA 0.1 mg/m^3
Ethylene glycol		Mexico: Ceiling 100 mg/m^3

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class

Class D, Div. 2

E - Corrosive material

Chemical Name	NPRI
Ethylene glycol	X

Legend

NPRI - National Pollutant Release Inventory

Canadian Provincial OEL

Component	Canada - Alberta - Occupational Exposure Limits - Carcinogens	Canada - Alberta - Occupational Exposure Limits - Designated Substances	Canada - Alberta - Occupational Exposure Limits - Simple Asphyxiants	Canada - Alberta - Occupational Exposure Limits - Skin Notations	Canada - Alberta - Occupational Exposure Limits - STELs	Canada - Alberta - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	A2 - Suspected Human Carcinogen	-	-	-	-	0.025 mg/m^3 TWA

Component	Canada - British Columbia - Occupational Exposure Limits - Carcinogens	Canada - British Columbia - Occupational Exposure Limits - Designated Substances	Canada - British Columbia - Occupational Exposure Limits - Sensitizers	Canada - British Columbia - Occupational Exposure Limits - Simple Asphyxiants	Canada - British Columbia - Occupational Exposure Limits - Skin Notations	Canada - British Columbia - Occupational Exposure Limits - STELs	Canada - British Columbia - Occupational Exposure Limits - Substances with Reproductive Critical Effects	Canada - British Columbia - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	ACGIH Category A2 - Suspected Human Carcinogen IARC Category 1 - Human Carcinogen	ACGIH Category A2 - Suspected Human Carcinogen IARC Category 1 - Human Carcinogen	-	-	-	-	-	0.025 mg/m^3 TWA
Ethylene glycol 107-21-1 (0.1-1.0)	-	-	-	-	-	-	-	10 mg/m^3 TWA

Component	Canada - Manitoba - Occupational Exposure Limits - Carcinogens	Canada - Manitoba - Occupational Exposure Limits - Simple Asphyxiants	Canada - Manitoba - Occupational Exposure Limits - Skin Notations	Canada - Manitoba - Occupational Exposure Limits - STELs	Canada - Manitoba - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	A2 Suspected Human Carcinogen	-	-	-	0.025 mg/m^3 TWA
Ethylene glycol 107-21-1 (0.1-1.0)	A4 Not Classifiable as a Human Carcinogen	-	-	-	-

Component	Canada - New Brunswick - Occupational Exposure Limits - Carcinogens	Canada - New Brunswick - Occupational Exposure Limits - Simple Asphyxiants	Canada - New Brunswick - Occupational Exposure Limits - Skin Notations	Canada - New Brunswick - Occupational Exposure Limits - STELs	Canada - New Brunswick - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	-	-	-	-	0.1 mg/m^3 TWA
Ethylene glycol 107-21-1 (0.1-1.0)	A4 - Not Classifiable as a Human Carcinogen	-	-	-	-

Component	Canada - Newfoundland & Labrador - Occupational Exposure Limits - Sensitizers	Canada - Newfoundland & Labrador - Occupational Exposure Limits - Skin Notations	Canada - Newfoundland & Labrador - Occupational Exposure Limits - STELs	Canada - Newfoundland & Labrador - Occupational Exposure Limits - TWAs	Canada - Northwest Territories - Occupational Exposure Limits - Skin Notations	Canada - Northwest Territories - Occupational Exposure Limits - STELs	Canada - Northwest Territories - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	-	-	-	0.025 mg/m^3 TWA	-	-	0.1 mg/m^3 TWA 0.3 mg/m^3 TWA
Ethylene glycol 107-21-1 (0.1-1.0)	-	-	-	-	-	20 mg/m^3 STEL	10 ppm TWA

Component	Canada - Nova Scotia - Occupational Exposure Limits - Carcinogens	Canada - Nova Scotia - Occupational Exposure Limits - Sensitizers	Canada - Nova Scotia - Occupational Exposure Limits - Simple Asphyxiants	Canada - Nova Scotia - Occupational Exposure Limits - Skin Notations	Canada - Nova Scotia - Occupational Exposure Limits - STELs	Canada - Nova Scotia - Occupational Exposure Limits - TWAs	Canada - Nunavut - Occupational Exposure Limits - Skin Notations	Canada - Nunavut - Occupational Exposure Limits - STELs	Canada - Nunavut - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	A2 Suspected Human Carcinogen	-	-	-	-	0.025 mg/m^3 TWA	-	-	0.1 mg/m^3 TWA 0.3 mg/m^3 TWA
Ethylene glycol 107-21-1 (0.1-1.0)	A4 Not Classifiable as a Human Carcinogen	-	-	-	-	-	-	20 mg/m^3 STEL	10 mg/m^3 TWA

Component	Canada - Ontario - Occupational Exposure Limits - Designated Substances	Canada - Ontario - Occupational Exposure Limits - Simple Asphyxiants	Canada - Ontario - Occupational Exposure Limits - Skin Notations	Canada - Ontario - Occupational Exposure Limits - STELs	Canada - Ontario - Occupational Exposure Limits - TWAs	Canada - Prince Edward Island - Occupational Exposure Limits - STELs	Canada - Prince Edward Island - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	0.10 mg/m^3 TWA	-	-	-	0.10 mg/m^3 TWA	-	0.025 mg/m^3 TWA

Component	Canada - Quebec - Occupational Exposure Limits - Carcinogens	Canada - Quebec - Occupational Exposure Limits - Sensitizers	Canada - Quebec - Occupational Exposure Limits - Simple Asphyxiants	Canada - Quebec - Occupational Exposure Limits - Skin Designations	Canada - Quebec - Occupational Exposure Limits - STELs	Canada - Quebec - Occupational Exposure Limits - Substances Whose Exposure Should Be Controlled	Canada - Quebec - Occupational Exposure Limits - TWAEVs
Silica, Quartz 14808-60-7 (1-5)	C2 carcinogen - effect suspected in humans	-	-	-	-	Present	0.1 mg/m^3 TWAEV

Component	Canada - Saskatchewan - Occupational Exposure Limits - Designated Chemical Substances	Canada - Saskatchewan - Occupational Exposure Limits - Notifiable Chemical and Biological Substances	Canada - Saskatchewan - Occupational Exposure Limits - Sensitizers	Canada - Saskatchewan - Occupational Exposure Limits - Skin Designations	Canada - Saskatchewan - Occupational Exposure Limits - STELs	Canada - Saskatchewan - Occupational Exposure Limits - TWAs	Canada - Yukon - Occupational Exposure Limits - Carcinogens	Canada - Yukon - Occupational Exposure Limits - Maximum Acceptable Body Burdens	Canada - Yukon - Occupational Exposure Limits - Simple Asphyxiants	Canada - Yukon - Occupational Exposure Limits - Skin Notations	Canada - Yukon - Occupational Exposure Limits - STELs	Canada - Yukon - Occupational Exposure Limits - TWAs
Silica, Quartz 14808-60-7 (1-5)	-	-	-	-	-	0.05 mg/m^3 TWA	-	-	-	-	-	300 particle/mL TWA

Ethylene glycol 107-21-1 (0.1-1.0)	-	-	-	-	-	-	-	-	-	-	10 ppm STEL 20 mg/m^3 STEL 125 ppm STEL 325 mg/m^3 STEL	10 mg/m^3 TWA 100 ppm TWA 250 mg/m^3 TWA

16. OTHER INFORMATION

NFPA	**Health Hazards** 3	**Flammability** 1	**Stability** 0	**Special Hazards** -
HMIS	**Health Hazards** 3	**Flammability** 1	**Physical Hazards** 0	**Personal Protection** B

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Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet