

MATERIAL SAFETY DATA SHEET

Powercrete J- Part A

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name Powercrete J - Part A
Product Description Pipe Coating
Manufacturer/Supplier Berry Plastics Corporation, Corrosion Protection Group
Address 13835, Beaumont Highway,
Houston, Texas – 77049 (U.S.A.)
Phone Number (713) 676-0085 (Monday – Friday 8:00 am to 5:00 pm)
Chemtrec Number (800) 424-9300
Revision Date:
MSDS Date: April 11, 2011

Material Safety Data Sheet according to OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning!

Avoid breathing vapor, mist or spray.
 Causes irritation to eyes and skin and respiratory tract.
 May cause skin sensitization.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Routes of Entry

Eye contact - Skin contact - Inhalation (if aerosolized) - Ingestion

Carcinogenic Status

Considered carcinogenic by IARC (see Section 11).

Target Organs

Skin - Eye - Respiratory System (if aerosolized)

Health Effects - Eyes

Liquid, mist or vapor may cause pain, transient irritation and superficial corneal effects.

Health Effects - Skin

Repeated exposure may cause skin irritation. May cause skin sensitization.

Health Effects - Ingestion

If swallowed, may cause mild irritation to the GI tract.

Health Effects - Inhalation

Prolonged repeated exposure may cause irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component Name | CAS# | Concentration |
|---------------------------------------|-------------|---------------|
| Bisphenol A, diglycidyl ether polymer | 25068-38-6 | 20 - 35% |
| Quartz | 14808-60-7 | 0.1-10% |
| Polymers | Proprietary | 1 - 10% |
| Inorganic compounds | Proprietary | 55 - 70% |

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Immediately flood the skin with large quantities of water for at least 15 minutes, preferably under a shower. Remove contaminated clothing and continue washing. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.

Ingestion

Do not induce vomiting. Have victim drink 1-3 glasses of water to dilute stomach contents. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

5. FIRE - FIGHTING MEASURES

Extinguishing Media

Use foam, dry chemical or carbon dioxide.

Unusual Fire and Explosion Hazards

Decomposition and combustion products may be toxic.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Wear appropriate protective clothing. Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer or has contaminated soil or vegetation. Dispose in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Use in well ventilated area. Use local exhaust ventilation. Use appropriate protective clothing. If this product is sprayed, aerosolized or applied to hot surfaces, wear appropriate protective clothing to prevent contact with skin, eyes and respiratory system. Consider the use of respiratory protection, especially during application to hot surfaces. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Storage area should be: - cool - dry - well ventilated - away from incompatible materials - out of direct sunlight - away from sources of ignition

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Exposure limits are listed below, if they exist.

Quartz

ACGIH TLV for Quartz (silica-crystalline) is 0.025 mg/m³ measured as respirable fraction of the aerosol

Bisphenol A, epichlorohydrin polymer

None established.

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection

Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hand Protection

Butyl gloves are recommended.

Eye Protection

Chemical goggles or safety glasses with side shields

Body Protection

If there is danger of splashing, wear: - overall or apron

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|----------------|
| Physical State | Viscous Liquid |
| Color | Brown |
| Odor | Slight |
| pH | Not applicable |
| Specific Gravity | ~1.78 |
| Boiling Range/Point (°C/F) | Not determined |
| Melting Point (°C/F) | Not determined |
| Flash Point (°C/F) | >93/200 |
| Vapor Pressure | Not determined |
| Evaporation Rate | Not determined |
| Solubility in Water | Insoluble |
| Vapor Density (Air = 1) | Not Applicable |
| Viscosity (cSt) | Not determined |
| VOC (g/l) | Nil |

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

Heat, sparks, flames – contact with incompatibles

Materials to Avoid

Strong oxidizing agents

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

Oxides of carbon – aldehydes

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Bisphenol A, diglycidyl ether polymer: Oral LD50(rat) >5000 mg/kg
Dermal LD50(rabbit)>6000 mg/kg

Inorganic compound: Oral LD50 (rat) >6450 mg/kg

11. TOXICOLOGICAL INFORMATION

Specific Target Organ Systemic Toxicity (single and repeat)

Bisphenol A, diglycidyl ether polymer: Subchronic studies (dermal, rat) showed no apparent system toxicity with the exception of decreased body weight and body weight gain.

Serious Eye damage/Eye Irritation

Bisphenol A, diglycidyl ether polymer: Slight irritation (rabbit)

Skin Corrosion/Irritation

Bisphenol A, diglycidyl ether polymer: Moderate irritation (rabbit)

Respiratory or Skin Sensitization

Bisphenol A, diglycidyl ether polymer: Moderate sensitizer

Carcinogenicity

Crystalline silica (quartz): IARC Overall Evaluation is 1 (carcinogenic to humans).

Germ Cell Mutagenicity

Bisphenol A, diglycidyl ether polymer: In vitro tests showed mutagenic effects which were not observed with in vivo tests.

Toxicity to Reproduction

Bisphenol A, diglycidyl ether polymer: There were no treatment related histologic changes noted nor effects on reproductive performance in rat at any oral dose tested. No adverse effects on embryonic or fetal development were observed in rabbits after dermal exposure.

12. ECOLOGICAL INFORMATION

Mobility

No relevant studies identified.

Persistence/Degradability

Biodegradability: Bisphenol A, epichlorohydrin polymer: 12% (modified Sturm method)

Bio-accumulation

No relevant studies identified.

Ecotoxicity

Bisphenol A, epichlorohydrin polymer: LC50 96hr 1.5 mg/l Rainbow Trout
EC50 24hr 3.6 mg/l Daphnia

13. DISPOSAL CONSIDERATIONS

For disposal of residual product, mix by weight 100 parts Powercrete J - Part A with 11 parts Powercrete J - Part B or mix by volume 5 parts A to 1 part B. Allow mix to solidify in well ventilated area or outdoors. Dispose of in accordance with all applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care. Dispose of in accordance with all applicable local, state and national regulations.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A epoxy resin) , (9), UN 3082, III

UN Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A epoxy resin)

UN Class

9

UN Number

UN3082

UN Packaging Group

III

Classification for AIR Transportation (IATA)

Consult current IATA Regulations prior to shipping by air.

15. REGULATORY INFORMATION

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

All ingredients have been verified for inclusion on the EPA Toxic Substance Control Act Chemical Substance Inventory.

DSL (Canadian) Listing

All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).

California Proposition 65

This product contains materials which the State of California has found to cause cancer, birth defects or other reproductive harm: Quartz (14808-60-7) – Epichlorohydrin (106-89-8) <0.01%

WHMIS Classification

D.2 A,.D.2.B

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

SARA Title III Sect. 311/312 Categorization

Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 1

NFPA Code for Health - 2

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards – None

HMIS Ratings

HMIS Code for Flammability - 1

HMIS Code for Health - 2*

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

For further information email: msdstechnical@berryplastics.com

Prepared By: EnviroNet LLC.

The information and recommendations presented in this MSDS are based on sources believed to be accurate. Berry Plastics Corporation, Tapes and Coatings Division assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the **material** for their particular purposes. In particular, we make NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use **or disposal** of the material is in accordance with applicable Federal, State, and local laws and regulations.

MATERIAL SAFETY DATA SHEET

Powercrete J - Part B

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name Powercrete J - Part B
Product Description Pipe Coating
Manufacturer/Supplier Berry Plastics Corporation, Corrosion Protection Group
Address 13835, Beaumont Highway,
Houston, Texas – 77049 (U.S.A.)
Phone Number (713) 676-0085 (Monday – Friday 8:00 am to 5:00 pm)
Chemtrec Number (800) 424-9300
Revision Date:
MSDS Date: March 31, 2011

Safety Data Sheet according to OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning!

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

Routes of Entry

Eye contact - Skin contact - Inhalation - Ingestion

Carcinogenic Status

Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs

Skin - Eye - Respiratory System

Health Effects - Eyes

Corrosive to eyes. Liquid, mist or vapor may cause severe irritation and eye burns.

Health Effects - Skin

Contact may cause severe irritation, dermatitis and chemical burns. May cause allergic skin reaction.

Health Effects - Ingestion

Swallowing may cause severe burns of the mouth and throat.

Health Effects - Inhalation

Vapors may be severely irritating to the respiratory tract. May cause respiratory tract burns. Prolonged repeated exposure can cause lung damage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component Name | CAS# | Concentration |
|----------------|-------------|---------------|
| Alkyl Amine | Proprietary | 100% |

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 20 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

4. FIRST AID MEASURES

Skin

Immediately flood the skin with large quantities of water for at least 20 minutes, preferably under a shower. Remove contaminated clothing and continue washing. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.

Ingestion

Do not induce vomiting. Have victim drink 1-3 glasses of water to dilute stomach contents. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

5. FIRE - FIGHTING MEASURES

Extinguishing Media

Use foam, water spray or fog. Use dry chemical, carbon dioxide, sand or earth for small fires only.

Unusual Fire and Explosion Hazards

Decomposition and combustion products may be toxic.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Wear appropriate protective clothing. Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer or has contaminated soil or vegetation. Dispose in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Use in well ventilated area. Use local exhaust ventilation. Use appropriate protective clothing. If this product is sprayed, aerosolized or applied to hot surfaces, wear appropriate protective clothing to prevent contact with skin, eyes and respiratory system. Consider the use of respiratory protection, especially during application to hot surfaces. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Storage area should be: - cool - dry - well ventilated - away from incompatible materials - out of direct sunlight - away from sources of ignition

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Exposure limits are listed below, if they exist.

Alkyl Amine

None established.

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

Respiratory Protection

Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hand Protection

Butyl gloves are recommended.

Eye Protection

Chemical goggles or safety glasses with side shields. Consider the use of a face shield if splashing is possible.

Body Protection

If there is danger of splashing, wear: overall or apron

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|----------------|
| Physical State | Liquid |
| Density (lbs./gal) | 8.3 |
| Boiling Range/Point (°C/F) | Not determined |
| Melting Point (°C/F) | Not determined |
| Flash Point (°C/F) | >139/282 |
| Vapor Pressure | Not determined |
| Evaporation Rate | Not determined |
| Solubility in Water | Soluble |
| Vapor Density (Air = 1) | Not Applicable |
| Viscosity (cSt) | Not determined |

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

Heat, sparks, flames – contact with incompatibles

Materials to Avoid

Strong oxidizing agents

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

Oxides of carbon – oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

The information below is based on knowledge of the component and toxicology of similar materials.

Acute Toxicity

Oral LD50 400<LD50≤2000 mg/kg

Dermal LD50 LD50>2000 mg/kg

Inhalation LC50 1<LC50≤5 mg/l

Specific Target Organ Systemic Toxicity (single and repeat)

Repeated exposure causes effects to the respiratory system with possible lung damage.

Serious Eye damage/Eye Irritation

Corrosive to eyes.

Skin Corrosion/Irritation

Corrosive to skin.

Respiratory or Skin Sensitization

May cause skin sensitization.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

No relevant studies identified.

Toxicity to Reproduction

No relevant studies identified.

12. ECOLOGICAL INFORMATION

The information below is based on knowledge of the component and toxicology of similar materials.

Mobility

No relevant studies identified.

Persistence/Degradability

Expected to be not readily biodegradable.

Bio-accumulation

Not expected to bioaccumulate significantly.

Ecotoxicity

Fish: $10 < LC/EC/IC\ 50 \leq 100$ mg/l Algae:

$10 < LC/EC/IC\ 50 \leq 100$ mg/l Invertebrates:

$10 < LC/EC/IC\ 50 \leq 100$ mg/l

13. DISPOSAL CONSIDERATIONS

For disposal of residual product, mix by weight 100 parts Powercrete J - Part A with 11 parts Powercrete J - Part B or mix by volume 5 parts A to 1 part B. Allow mix to solidify in well ventilated area or outdoors. Dispose of in accordance with all applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care. Dispose of in accordance with all applicable local, state and national regulations.

14. TRANSPORT INFORMATION

| | |
|---|---|
| DOT CFR 172.101 Data | Polyamines, liquid, corrosive, n.o.s. (Polyalkylamines), (8), UN 2735, II |
| UN Proper Shipping Name | Polyamines, liquid, corrosive, n.o.s. (Polyalkylamines) |
| UN Class | 8 |
| UN Number | UN2735 |
| UN Packaging Group | II |
| Classification for AIR Transportation (IATA) | Consult current IATA Regulations prior to shipping by air. |

15. REGULATORY INFORMATION

| |
|---|
| US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS |
|---|

TSCA Listing

All ingredients have been verified for inclusion on the EPA Toxic Substance Control Act Chemical Substance Inventory.

DSL (Canadian) Listing

All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).

15. REGULATORY INFORMATION

California Proposition 65

This product contains materials which the State of California has found to cause cancer, birth defects or other reproductive harm: None

WHMIS Classification

E.D.2.A

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

SARA Title III Sect. 311/312 Categorization

Immediate (Acute) Health Hazard

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 1

NFPA Code for Health - 3

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards – None

HMIS Ratings

HMIS Code for Flammability - 1

HMIS Code for Health - 3

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

For further Information email: msdstechnical@berryplastics.com

Prepared By: EnviroNet LLC.

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