

MATERIAL SAFETY DATA SHEET

Ref. No. 117

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SECTION I

Date of Preparation: January, 1999 Rev May, 2004

PRODUCT NAME: Sewer Shield Cote 120 (Novolak System)
PRODUCT CLASS: Epoxy Resin, Part A
PRODUCT TYPE: Bisphenol F/Epichlorohydrin Resin

D.O.T. CATEGORY: Chemical, NOIBN

ADDRESS: Environmental Coatings
4702 E. Virginia Street
Mesa, AZ 85215-9101

TELEPHONE: 480/984-7608

EMERGENCY: 1-800/535-5053 INFOTRAC

**** NOTICE ****

Enviro-Cote 120 will
under go a name
change to
Sewer Shield Cote 120
You will be able to order
the material by either
name until document
and specification
changes are complete.

SECTION II - HAZARDOUS INGREDIENTS

Listed below are the hazardous component(s) as defined in 49 CFR 172 and 29 CFR 1910 which are present in this product and all components which appear on the hazardous substance list of any state:

NONE

SECTION III - PHYSICAL DATA

SPECIFIC GRAVITY: 1.53 at 77°F

DENSITY: 12.73 lbs./gal.

COLOR and APPEARANCE: Very viscous liquid, very light yellow

SECTION IV - HEALTH INFORMATION

This product has not been tested to determine its health hazards. According to OSHA's Hazard Communication Standard (29 CFR 1910.1200(d)(5)(ii) the hazards of similar products may be used to evaluate hazards of a material. The health effects notifications below are consistent with the requirement of that standard.

CONTACT:

Based on similar product testing, product may be moderately irritating to the eyes.

SKIN CONTACT:

Based on similar product testing, product may be moderately irritating to the skin and may cause skin sensitization.

INHALATION:

Product may be irritating to the nose, throat and respiratory tract.

INGESTION:

Based on similar product testing, product is predicted to have a low order of acute oral toxicity.

SIGNS AND SYMPTOMS:

Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.

AGGRAVATED MEDICAL CONDITIONS:

Pre-existing skin allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

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| SECTION IV - EMERGENCY AND FIRST AID PROCEDURES |
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EYE CONTACT:

Flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.

SKIN CONTACT:

Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent use.

INHALATION:

Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

INGESTION:

Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.

NOTE TO PHYSICIAN:In general, emesis induction is unnecessary in high viscosity, low volatility products, e.g. neat epoxy resins.

SECTION V - FIRE AND EXPLOSION HAZARDS

FLASH POINT: 200°C

EXTINGUISHING MEDIA: Use water fog, alcohol foam, dry chemical or CO₂.

SPECIAL FIRE FIGHTING PROCEDURES: Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Explosive dust clouds may be produced. May produce formaldehyde under fire conditions.

SECTION VI - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS AND MATERIALS TO AVOID: Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases/especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, aldehydes, acids, and unidentified organic compounds may be formed during thermal and oxidative decomposition and on combustion. Run-a-way cure reactions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic.

SECTION VII - EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: Avoid prolonged or repeated breathing of dust. If exposure may or does exceed exposure limits, use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for

particulates. PROTECTIVE CLOTHING: Avoid contact with eyes. Wear safety glasses or goggles as appropriate. Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloves and other clothing as required minimize contact.

ADDITIONAL PROTECTIVE MEASURES: Use explosion-proof ventilation as required to control particulate concentrations.

SECTION VIII - ENVIRONMENTAL PROCEDURES

SPILL OR LEAK PROCEDURES:

May burn although not readily ignitable. Use cautious judgment with cleaning up large spills. LARGE SPILLS - Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; dispose of properly. Flush area with water to remove trace residue. SMALL SPILLS - Take up with an absorbent material and dispose of properly.

WASTE DISPOSAL:

If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

ENVIRONMENTAL HAZARDS:

Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

SECTION IX - SPECIAL PRECAUTIONS

Store in cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

CAUTION: This product may cause skin sensitization. Containers, even those that have been emptied, may contain hazardous residues. Avoid contact with eye, skin and clothing. Avoid breathing vapor. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reusing. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.

Heating this resin above 300 deg. F. in the presence of air may cause slow oxidative decomposition; above 500 deg. F., polymerization may occur. Some

curing agents, e.g., aliphatic polyamines can product exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants.

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Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do not breathe fumes. Use a NIOSH-approved respirator as required to prevent over exposure. In accord with 29 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

SECTION X - TRANSPORTATION INFORMATION

Department of Transportation Classification:
Not Hazardous by D.O.T. Regulations

D.O.T. Proper Shipping Name:
Not Regulated

SECTION XI - OTHER REGULATORY CONTROLS

This product is listed on the EPA/TSCA inventory of chemical substances. Protection of Stratospheric Ozone (Pursuant to Section 611 of the clean air act amendments of 1990): Per 40 CFR Part 82. This product does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

SECTION XII - STATE REGULATORY INFORMATION

Based on available information, this product does not contain any chemical substance regulated by a specific state list.

THE INFORMATION HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION ENVIRONMENTAL COATINGS CONSIDERS TO BE ACCURATE. NO WARRANTY EXPRESSED OR IMPLIED IS INTENDED.

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SECTION I

Date of Preparation: January, 1999 Rev May, 2004
PRODUCT NAME: Sewer Shield Cote 120
PRODUCT CLASS: Epoxy Hardener, Part B
PRODUCT TYPE: Cycloaliphatic/Aliphatic Amine Mixture
D.O.T. CATEGORY: Not Regulated

ADDRESS: Environmental Coatings
4702 E. Virginia Street
Mesa, AZ 85215-9101

TELEPHONE: 480/984-7608

EMERGENCY: 1-800/535-5053 INFOTRAC

SECTION II - HAZARDOUS INGREDIENTS

CAS Number

- < 15% 108-95-2 Phenol
- < 5% 112-24-3 Triethylenetetramine
- > 85% 32610-77-8 Formaldehyde Polymer with Phenol and Teta
- > 45% 100-51-6 Benzyl Alcohol

OSHA (ACGIH) Exposure Limits

| CAS# | TWA | | STEL | | CEILING | | |
|------------|-------|-------|-------|-------|---------|-------|--------|
| | ppm | mg/m3 | ppm | mg/m3 | ppm | mg/m3 | |
| 108-95-2 | 5 | 19 | N/E | N/E | N/E | N/E | SKIN |
| | (5) | (19) | (N/E) | (N/E) | (N/E) | (N/E) | (SKIN) |
| 112-24-3 | N/E | N/E | N/E | N/E | N/E | N/E | N/E |
| | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | |
| 32610-77-8 | N/E | N/E | N/E | N/E | N/E | N/E | N/E |
| | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | |
| 100-51-6 | N/E | N/E | N/E | N/E | N/E | N/E | N/E |
| | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | (N/E) | |

N/E = Not Established

SECTION III - PHYSICAL DATA

SPECIFIC GRAVITY: 1.06 at 77°F
DENSITY: 8.85 lbs./gal.

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| SECTION IV - HEALTH HAZARDS |
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HMIS HEALTH RATING 3 FLAMMABILITY 1 REACTIVITY 0

Severe eye irritant. Moderate skin irritant. Severe respiratory track irritant. Corrosive liquid. May cause skin sensitization. Ignition will give rise to a Class B fire. In case of fire use: Carbon Dioxide (CO²), Dry Chemical, Alcohol Foam, Water Spray.

ROUTES OF EXPOSURE:

Ingestion
Skin Absorption
Inhalation

EXPOSURE STANDARDS:

No standards established for the product. Maintain air contaminant concentrations in the workplace at the lowest feasible levels.

HEALTH HAZARDS:

Severe eye irritant. Moderate skin irritant. Severe respiratory tract irritant. Corrosive liquid. May cause skin sensitization.

TARGET ORGANS:

Eye. Digestive or gastrointestinal system. Respiratory system.

SIGNS AND SYMPTOMS OF EXPOSURE (Acute Effects):

Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Burns of the eye may cause blindness. Inhalation of vapors may cause irritation in the respiratory tract. Coughing and chest pain may result. Risk of exposure to hazardous concentrations of vapor under normal working conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided.

Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect.

Ingestion may cause bleeding of the gastrointestinal tract and the vomiting of blood.

SIGNS AND SYMPTOMS OF EXPOSURE (Possible Longer Term Effects):

Repeated and/or prolonged exposure to low concentrations of vapor may cause: sore throat, eye irritation, nausea. Repeated and/or prolonged contact with the skin may cause allergic reaction/sensitization. Repeated and/or prolonged

exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness of breath); adverse skin effects (such as defatting, rash, irritation or corrosion); adverse eye effects (such as conjunctivitis or corneal damage).

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Asthma. Chronic respiratory disease (e.g. Bronchitis, Emphysema), Eye disease. Skin disorders and Allergies.

IRRITATION EFFECTS DATA

Moderate irritant to the skin of a rabbit.

ACUTE TOXICITY EFFECTS DATA

Oral LD50 (rat): > 2200 MG/KG

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| SECTION V - FIRST AID |
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EYE CONTACT:

Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

SKIN CONTACT:

Remove product and immediately flush affected area with water for at least 15 minutes. Call a physician. Except in the most minor, superficial and localized burns, cover the affected area with a sterile dressing or clean sheeting and transport for medical care. DO NOT APPLY GREASES OR OINTMENTS. Control shock, if present. Launder contaminated clothing prior to reuse. Contaminated leather wear should be discarded. Victims of a major skin area contact should remain under medical observation for at least 24 hours due to possible delayed effects.

INHALATION:

Move patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth). Supplemental oxygen may be indicated. Prevent aspiration of vomit. Turn victim's head to the side. Assure mucous does not obstruct airway. Call a physician.

INGESTION:

If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point: 219°F (Pensky Martin Closed Cup)
Upper Explosion Limit (UEL): No Data
Lower Explosion Limit (LEL): No Data
Autoignition Temperature: No Data
Fire Hazard Classification (OSHA/NFPA) Combustible Liquid, Class IIIB

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EXTINGUISHING MEDIA:

Ignition will give rise to a Class B fire. In case of fire use: Water Spray, Carbon Dioxide (CO²), Dry Chemical, Alcohol Foam.

SPECIAL FIRE FIGHTING PROCEDURES:

Retain expended liquids from fire fighting for later disposal. Fire fighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus. Water spray is also useful in cooling fire-exposed tanks and in dispersing vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

May generate toxic or irritating combustion products. Sudden reaction and fire may result if product is mixed with an oxidizing agent.

SECTION VII - REACTIVITY HAZARD DATA

CHEMICAL STABILITY: Stable
CONDITIONS TO AVOID: N/A

INCOMPATIBILITY (Materials to avoid):

Oxidizing Agents (i.e. perchlorates, nitrates, etc.). Cleaning solutions, such as chromerge (sulfuric acid/dichromate) and aqua regia. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.

HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials): Carbon Monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm). Combustion of product under

oxygen-starved conditions can be expected to product numerous toxic products including: nitriles, cyanic acid, isocyanates, cyanogens, nitrosamines, amides, carbamates.

HAZARDOUS POLYMERIZATION: Will not occur.

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| SECTION VIII - SPILL, LEAK AND WASTE DISPOSAL INFORMATION |
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CONTAINMENT TECHNIQUES (Removal of ignition sources, diking, etc.) Stop the leak, if possible. Ventilate the space involved. Shut off or remove all ignition sources. Construct a dike to prevent spreading.

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CLEAN UP PROCEDURES:

Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. Cover minor spills with sodium bisulfate to neutralize and reduce vapors. Spray with water. Place in metal containers for recovery or disposal.

OTHER EMERGENCY ADVICE:

All personnel remain upwind of the spill. Prevent spilled product from entering streams or drinking water supplies. Notify local health authorities and other appropriate agencies if such contamination should occur. Potential for carbon monoxide and/or nitrous oxides generation in a fire must be recognized.

WASTE DISPOSAL:

Comply with all Federal, State and Local Regulations. Incineration is acceptable and the preferred method of disposal. However, nitrogen oxide emission controls may be required to meet specifications. Chemical and/or biological degradation is feasible. A suitable industrial or municipal waste treatment system can be used depending on the quality and quantity of waste to be treated, the treatment plant capability, and discharge water quality standards. Dispose of in an approved landfill if allowed locally.

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| SECTION IX - PERSONAL PROTECTION/EXPOSURE CONTROLS |
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EYE PROTECTION: Splash proof eye goggles. In emergency situations use eye goggles with a full face shield. Contact lenses should not be worn.

HAND PROTECTION: Nitrile rubber gloves.

RESPIRATORY PROTECTION: Not required under normal conditions. Supplied air respirator with full face shield or self-contained breathing apparatus under the following conditions: emergency situations, when product vapor concentration is greater than 20 ppm for a period longer than 15 minutes, during repair and cleaning of equipment, during transfer or discharge of the product.

PROTECTIVE CLOTHING:

Wear suitable protective clothing. Rubber apron. Rubber boots.

ENGINEERING CONTROLS:

In case of insufficient ventilation, wear suitable respiratory equipment. Adequate general and local exhaust.

WORK AND HYGIENIC PRACTICES:

Launder or discard contaminated clothing. Discard contaminated leather articles. Examine protective gloves before using. Discard if find evident of holes or cracks.

SECTION X - STORAGE AND HANDLING**STORAGE:**

Keep container tightly closed in a cool, well ventilated place. Keep away from, oxidizers, heat or flames.

Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Keep container closed.

HANDLING:

Avoid contact with skin, eyes and clothing. Avoid breathing of vapors. Handle in well ventilated work space.

OTHER PRECAUTIONS:

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Cancer-causing nitrosamines could be formed.

SECTION XI - TRANSPORTATION INFORMATION

D.O.T. Non-Bulk Shipping Name - Resin Compound - Not D.O.T. Regulated

IMO Shipping Data: Resin Compound - Not IMO Regulated

ICAO/IATA Shipping Data - Resin Compound - Not IATA Regulated

SECTION XII - U.S. FEDERAL REGULATIONS

Toxic Substances Control Act (TSCA) -

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es): Irritant

EPA SARA Title III Section 312 (40CFR370) hazard class: Immediate Health Hazard

EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis: level are: None

SECTION XIII - STATE REGULATIONS

PROPOSITION 65 SUBSTANCES component(s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986": None

NEW JERSEY TRADE SECRET REGISTRY NUMBER(S)

05995500-5422P

05995500-5426P

SECTION XIV - INTERNATIONAL REGULATIONS

CANADA

DSL

Not on inventory

WHMIS HAZARD CLASSIFICATION

Class D Division 2B

WHMIS TRADE SECRET REGISTRY NUMBER(S)

None

WHMIS HAZARDOUS INGREDIENTS

Included in Section 2

WHMIS SYMBOLS

Stylized T

EUROPEAN ECONOMIC COMMUNITY (EEC)

EINICS MASTER INVENTORY

Polymeric substance; monomers included on inventory.

THE INFORMATION HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION ENVIRONMENTAL COATINGS CONSIDERS TO BE ACCURATE. NO WARRANTY EXPRESSED OR IMPLIED IS INTENDED.