

ENVIRONMENTAL COATINGS

4702 E. Virginia Street • Mesa, AZ 85215 • 480/984-7608 • Fax 480/380-4461

MATERIAL SAFETY DATA SHEET

Ref. No. 905

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SECTION I

Date of Preparation: January, 2003 Rev May, 2004

PRODUCT NAME: Sewer Shield-Caulk
PRODUCT CLASS: Epoxy Resin, Part A
PRODUCT TYPE: Mixture – Epoxy Novolac/Urethane Polymer
D.O.T. CATEGORY: Not Regulated

MANUFACTURER: Environmental Coatings
4702 E. Virginia Street
Mesa, AZ 85215

TELEPHONE: 1-480-984-7608
EMERGENCY: 1-800/535-5053 INFOTRAC

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 PROPERTIES

Physical Form : Paste
Color : White
Odor : Slight
pH : Neutral
Boiling Point : >500°F
Solubility in water : Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >230°F (Pensky Martens Closed Cup)

EXTINGUISHING DATA: Foam, Dry Chemical, Carbon Dioxide (CO₂),

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NOTE: Toxic fumes will be evolved when this material is involved in a fire. Self-contained breathing apparatus should be available for fire fighters. Cool fire-exposed containers with water.

SECTION V - HEALTH HAZARD DATA

ROUTES OF ENTRY: Inhalation; Skin Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

Acute Inhalation: Inhalation of spray mists may cause respiratory irritation as a result of exposure to branched 4-nonyl-Phenol. Symptoms may include a burning sensation in the nose and throat and possibly chest pain and/or chest tightness.

Chronic Inhalation: None reported for this product.

Acute Skin Contact: Prolonged skin contact may result in skin irritation. Symptoms may be reddening, swelling, rash, scaling and blistering.

Chronic Skin Contact: None reported for this product.

Acute Eye Contact: Eye irritation. Symptoms are pain, tearing, reddening and swelling.

Chronic Eye Contact: None reported for this product.

Acute Ingestion: None reported, not a likely route of entry.

Chronic Ingestion: None reported, not a likely route of entry.

Medical Conditions Aggravated by Exposure: None known.

Exposure Limits: Not established for this product.

SECTION VI - EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with clean, lukewarm water (low pressure) for at least 15 minutes holding eyelids open all the time. Obtain medical attention. Refer individual to an ophthalmologist for immediate follow up.

SKIN: Remove contaminated clothing immediately. Wash affected areas thoroughly with soap and water for at least 15 minutes. Wash contaminated clothing thoroughly before reuse. Wash contaminated shoes before reuse. For severe exposures, get under safety shower after removing clothing, get medical attention and consult a physician.

INHALATION: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention. Consult physician.

INGESTION: Do not induce vomiting. Give 250 ml of milk or water to drink. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Consult physician.

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NOTE TO PHYSICIAN: Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible corneal epithelial edema impairing vision. Skin: Treat as contact dermatitis. Respiratory: Treatment is essentially symptomatic.

SECTION VII - EMPLOYEE PROTECTION RECOMMENDATIONS

Eye Protection Requirements: Safety glasses, splash goggles and full-face shield. Contact lenses should not be worn by persons handling this product.

Skin Protection Requirements: Permeation resistant gloves (butyl rubber). Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area covered only by the cream to a minimum.

Respirator Requirements: None required under normal conditions of use.

Ventilation Requirements: General dilution ventilation.

Additional Protective Measures: Safety showers and eyewash stations should be available. Educate and train employees in safe use of product. Follow all label instructions.

SECTION VIII - REACTIVITY DATA

Stability: This is a stable material.

Hazardous Polymerization: Will not occur.

Incompatibilities: Certain amines may cause unblocking at lower temperatures.

Instability Conditions: Blocking agent and toluene diisocyanate are released at temperatures above 248°F.

Decomposition Products: By fire; CO₂, CO, phenol derivatives, low molecular weight organic fragments, TDI.

SECTION IX - SPILL AND LEAK PROCEDURES

SPILL OR LEAK PROCEDURES: Equip clean up crew with appropriate protective equipment (See employee Protection Recommendations). Dike or impound spilled material and control further spillage if feasible. Cover spill with sawdust, vermiculite, Fuller's earth or other absorbent material. Collect material in open containers.

WASTE DISPOSAL METHOD: Waste material must be disposed of in accordance with Federal, State and Local environmental control regulations. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH. Vapors and gases may be highly toxic.

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SECTION X - SPECIAL PRECAUTIONS AND STORAGE DATA

Storage Temperature: 32°F minimum, 122°F maximum.

Handling/Storage Precautions: Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Avoid contact with skin and eyes. Do not breathe aerosols or vapors. Warning properties (irritation of the eyes, nose or throat or odor) are not adequate to prevent chronic overexposure from inhalation. Employee education and training in the safe use and handling of this compound are required under the OSHA Hazard Communication Standard.

SECTION XI - SHIPPING INFORMATION

D.O.T. - Not Regulated

IMO/IMDG - Not Regulated

ICAO/IATA - Not Regulated

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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Date of Preparation: January, 2003 Rev May, 2004

PRODUCT NAME: Sewer Shield Caulk
PRODUCT CLASS: Epoxy Hardener, Part B
PRODUCT TYPE: Cycloaliphatic/Aliphatic Amine Mixture
D.O.T. CATEGORY: Amines, Liquid, Corrosive, n.o.s. UN2735

MANUFACTURER: Environmental Coatings
4702 E. Virginia Street
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EMERGENCY OVERVIEW

HMIS/NFPA Health 2 Flammability 1 Reactivity 0

Physical Form: Paste

Color: Dark

Odor: Ammoniacal

Hazards: Harmful if swallowed. Severe skin irritant, Severe eye irritant, and Severe respiratory irritant. May cause skin sensitization. Corrosive to eyes.

Extinguishing Media: Ignition will give rise to a Class B fire. In case of large fire use: alcohol foam, water spray. In case of small fire use: carbon dioxide (CO₂), dry chemical, dry sand or limestone.

SECTION II - INGREDIENTS

CAS Number and Chemical Name

< 4% 108-95-2 Phenol
< 4% 112-24-3 Triethylenetetramine
< 11% 32610-77-8 TETA, Reaction Products with Phenol/Formaldehyde
< 20% 100-51-6 Benzyl Alcohol
< 10% 1761-71-3 4,4'-Methylenebis(cyclohexanamine)
< 10% 140-31-8 Aminoethyl Piperazine, 1-(2-, (AEP)
< 15% 25154-52-3 Nonylphenol
< 6% Cycloaliphatic Amine
< 5% Acid

The remaining components are trade secret.

Exposure Limits – Not Established

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SECTION III- HEALTH HAZARDS

ROUTES OF EXPOSURE:

Eye Contact
Skin Contact
Ingestion
Skin Absorption

EXPOSURE STANDARDS:

Maintain air contaminant concentrations in the workplace at the lowest feasible levels.

HEALTH HAZARDS:

Harmful if swallowed. Severe skin irritant. May cause skin sensitization. Severe respiratory tract irritant. Corrosive to eyes. Corrosive to skin. Severe eye irritant.

TARGET ORGANS: Eye. Skin. Respiratory System. Liver or the hepatic system. Kidney, Spleen, Pancreas.

SIGNS AND SYMPTOMS OF EXPOSURE (Acute Effects):

Contact with eyes causes severe irritation and pain. Contact with skin causes irritation, redness and discomfort, which is transient. Inhalation of mists may cause irritation in the respiratory tract. 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 in a well-ventilated space is minimal. However, conditions such as spraying or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided. Product is readily absorbed through the skin and may cause nausea, headache and general discomfort.

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

Repeated and/or prolonged contact with the skin may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in: liver disorders (such as jaundice or liver enlargement), kidney disorders (such as edema, or proteinuria), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as defatting, rash, or irritation or corrosion). Dryness of nasal passages may be experienced when material is inhaled over a long period of time.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Eye disease. Skin disorders and Allergies. Asthma. Chronic Respiratory Disease (e.g. Bronchitis, Emphysema). Kidney Disorders. Liver Disorders.

CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER:

This product contains no carcinogens in concentrations of 0.1 percent or greater.

SECTION IV - FIRST AID

EYE CONTACT:

Hold eyelids apart and rinse immediately with plenty of water for at least 15 minutes. If irritation persists, seek medical advice.

SKIN CONTACT:

Remove product and immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated leather apparel. Launder contaminated clothing prior to reuse.

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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. Seek medical advice.

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 V - FIRE AND EXPLOSION DATA

Flash Point: >219°F (Closed Cup)

Upper Explosion Limit (UEL): No Data

Lower Explosion Limit (LEL): No Data

Autoignition Temperature: No Data

Fire Hazard Classification (OSHA/NFPA): Class IIIB

EXTINGUISHING MEDIA:

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

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus.

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. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in vicinity and downwind should be evacuated.

SECTION VI - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES (Removal of ignition sources, diking, etc.): Stop the leak, if possible. Reduce vapor spreading with a water spray. Shut off or removal all ignition sources. Construct a dike to prevent spreading (includes molten liquids until they freeze).

CLEAN-UP PROCEDURES: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste containers. Transfer to containers by suction, preparatory for later disposal. Flush area with water spray. Clean up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

OTHER EMERGENCY ADVICE: Wear protective clothing, boots, gloves, and eye protection.

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SECTION VII – HANDLING AND STORAGE

STORAGE:

Keep away from acids, alkalis, and oxidizers. Keep in cool, dry, ventilated storage and in closed containers. Store in steel containers, preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in reactive metal containers.

HANDLING:

Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated work space. When handling, do not eat, drink or smoke. Avoid using in any spray application without strict conformance to all applicable electrical codes and the OSHA limit for maximum allowable airborne concentrations.

OTHER PRECAUTIONS:

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

SECTION VIII – PERSONAL PROTECTION/EXPOSURE CONTROLS

EYE PROTECTION: Chemical safety goggles. In emergency situations, use eye goggles with a full-face shield.

HAND PROTECTION: Neoprene rubber gloves. Cuffed butyl rubber gloves. Nitrile rubber gloves. Impermeable gloves. Polyvinyl chloride gloves.

RESPIRATORY PROTECTION: Not required under normal conditions in a well-ventilated work workplace.

PROTECTIVE CLOTHING: Long sleeved clothing. Impervious clothing. Slicker suit. Rubber boots.

ENGINEERING CONTROLS: No specific controls needed.

WORK AND HYGIENIC PRACTICES: Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet. Use appropriate hand and skin lotions to protect the skin. Discard contaminated leather articles.

SECTION IX – TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Mobile Liquid
Color/Odor:	Amber/Ammoniacal
PH:	Alkaline
Vapor Pressure:	<1.0000 (mm Hg at 21C (70°F))
Vapor Density:	No Data
Boiling Point:	431°F
Melting Point:	No Data
Solubility in Water:	Slight (0.1 – 1%)
Specific Gravity:	(water = 1) 1.06
Molecular Weight:	Mixture

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SECTION X – STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: N/A

INCOMPATIBILITY (Materials to avoid):

Mineral acids (i.e. sulfuric, phosphoric, etc.) Alkalis (i.e. Sodium or Potassium Hydroxide etc.) Organic acids (i.e. acetic acid, citric acid etc.). Reducing agents (i.e. Hydrides, sulfites etc.). Oxidizing Agents (i.e. perchlorates, nitrates, etc.). Reactive metals (i.e. sodium, calcium, zinc, etc.). Sodium or Calcium Hypochlorite. 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. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Amines. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Nitriles, nitrosating agents. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling crating a hazard due to splashing or splattering of hot material.

HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials: Nitrogen oxide can react with water vapors to form corrosive nitric acid. (TLV = 2 ppm). Carbon Monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrosamines. Aldehydes. Organic acid vapors. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID (If polymerization may occur): Not Applicable

SECTION XI – TOXICOLOGICAL PROPERTIES

ACUTE ORAL TOXICITY (LD50, RAT): >1200.00 mg/kg

ACUTE DERMAL TOXICITY (LD50, RABBIT): No data

ACUTE INHALATION TOXICITY (LC50, RAT): No data

OTHER ACUTE EFFECTS: No data

IRRITATION EFFECTS DATA: Irritation data based on estimates.

CHRONIC/SUBCHRONIC DATA: Absorption of phenolic solutions through the skin may be very rapid and can cause death. Lesser exposures can cause damage to the kidneys, liver, pancreas, and spleen, and edema of the lungs. Chronic exposures can cause death from liver and kidney damage.

SECTION XII – ECOLOGICAL INFORMATION

ECOTOXICITY: No data.

ENVIRONMENTAL FATE: 108-95-2 PHENOL; Biodegradability = 99.5% at 7 days.

ADDITIONAL INFORMATION: Waste from this product may present long-term environmental hazards, thus landfill disposal must be considered less acceptable than incineration.

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SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Comply with all Federal, State and Local Regulations.

SECTION XIV – TRANSPORT INFORMATION

D.O.T. Non-Bulk Shipping Name – Amines, liquid, corrosive, n.o.s. (CYCLOALIPHATIC AMINE /NONYLPHENOL) // 8 // UN2735 // PG III // NAERG Guide No. 153

D.O.T. Bulk Shipping Name: Refer to Bill of Lading.

IMO Shipping Data: Refer to Bill of Lading.

ICAO/IATA Shipping Data – Amines, liquid, corrosive, n.o.s. (CYCLOALIPHATIC AMINE /NONYLPHENOL) // 8 // UN2735 // III // Shipment per 49 CFR 171.11 // NAERG Guide No. 153

SECTION XV – REGULATORY INFORMATION

US 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): Corrosive, Sensitizer, Irritant, Liver toxin. Kidney toxin.

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

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

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-

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SECTION XVI - INTERNATIONAL REGULATIONS

CANADA

DSL

Included on inventory

WHMIS HAZARD CLASSIFICATION

Class D Division 2B, Class E Corrosive

WHMIS TRADE SECRET REGISTRY NUMBER (S)

None

WHMIS HAZARDOUS INGREDIENTS

Benzyl Alcohol, Acid, Phenol, Triethylenetetramine (TETA), Nonylphenol, Phenol, Aminoethyl) Piperazine, 1-(2-, (AEP)

WHMIS SYMBOLS

Stylized T, Test tube/hand

EUROPEAN ECONOMIC COMMUNITY (EEC)

EINICS/ELINCS MASTER INVENTORY

Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.

EEC SYMBOL: Harmful (Xn), Corrosive ©

EEC RISK (R) PHRASES: May cause sensitization by skin contact (R43). Harmful by inhalation and if swallowed (R20/22). Irritating to skin (R38). Risk of serious damage to eyes (R41) Harmful if in contact with skin (R21)

EEC SAFETY PHRASES:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26). Wear suitable protective clothing, gloves and eye/face protection (S36/37/39). Avoid release to the environment.

AUSTRALIA

AICS –Included on Inventory.

JAPAN MITI: Not on inventory.

PHILLIPPINES PICCS: Included on Inventory.

KOREA ECL: Included on Inventory.

CHINA SEPA: Not on Inventory.

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