

Ergon Armor

P.O. Box 1639
Jackson, MS 39215
Phone: 601-933-3000
24-hour: 800-222-7122
CHEMTREC: 800-424-9300
MSDS No. NI015

November 13, 2009

Material Safety Data Sheet

Quadex Epoxy System

PRODUCT IDENTIFICATION

Trade Name: Quadex Epoxy System
Chemical Family: Two Component epoxy amine system
Intended Use or Product Type: Cementitious Coating

COMPOSITION/INFORMATION ON INGREDIENTS

OSHA Hazardous Ingredients: NA

Resin: Bisphenol- A Epoxy Resin: CAS# 25068-38-6 80%-90%
Trade Secret: 10%-20%
OSHA (PEL/STEL) NE
ACGIH (TWA/STEL) NE

Hardener: Proprietary Accelerated Amine Adduct: CAS # Mixture 75% - 90%
ACGIH (Ceiling Limit Value): 0.1 mg/m³
Trade Secret <10%
OSHA (PEL/STEL) NE
ACGIH (TWA/STEL) NE

HAZARDS IDENTIFICATION

Emergency Overview: Toxic fumes are released in fire situation. Harmful if swallowed. May cause allergic skin and eye reaction.

HMIS (Resin): 2 1 0
HMIS (Hardener): 3 1 0

First Aid Measures

Ingestion: Resin - No hazards anticipated from swallowing small amounts incidental to normal handling operations. Single dose oral toxicity is considered to be extremely low. If large amounts are ingested, induce vomiting if conscious.

Hardener - Call physician immediately. Give generous amounts of water if conscious, but **do not induce vomiting**. If vomiting occurs, give fluids again.

Skin: Resin - Has caused allergic skin reactions. Repeated exposure may cause skin irritation. A single exposure is not likely to result in the material being absorbed through skin in harmful amounts. For skin contact, wash affected areas thoroughly with large amounts of water and soap.

Hardener - For skin contact, immediately remove contaminated clothing and shoes and wash affected areas thoroughly with large amounts of water and soap.

Inhalation: Resin - At temperatures, vapors are minimal due to physical properties. Remove to fresh air if effects occur, consult a physician.

Hardener - If inhaled, remove from area to fresh air. If not breathing, give artificial respirator. Get immediate medical attention.

Eyes: Resin - May cause slight eye irritation. Corneal injury is unlikely. Flush eyes with plenty of water, if effects occur.

Hardener - Immediately flush eyes with water for 15 minutes with running water. Call physician.

Overexposure Effects:

Overexposure to this material can cause chemical burns to the skin and eyes and inhalation of vapors can cause severe respiratory irritation. Can cause allergic skin and respiratory reactions. Can have effects on the nervous system evidenced by central nervous system depression, tremors, paralysis, diarrhea and vasodilation. May also cause headache, nausea and dizziness.

Medical Conditions Aggravated by Exposure: Allergy, eczema or skin conditions.

Additional Information: Promptly remove wet contaminated non-impervious clothing, wash before reuse. Destroy contaminated leather and absorbent shoes.

FIRE FIGHTING MEASURES

Flash Point:	<u>Resin</u> >482°F (250 °C)	<u>Hardener</u> >212°F (100°C)
Flash Point Method Used:	Closed cup	
Fire Fighting Extinguishing Media:	Carbon Dioxide, foam, dry chemical	
Fire Fighting Equipment:	Use a self-contained breathing apparatus	
Fire and Explosion Hazards:	Decomposition and combustion products may be toxic.	
NOTE:	decomposition and combustion products may be toxic	

ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: (Steps to be taken if material is spilled)

Keep unnecessary people away. Isolate hazard area and deny unnecessary entry. Eliminate all sources of ignition in vicinity of spill. For small spills: absorb with materials such as sand, polyethylene fiber, or polypropylene fiber products. Place in properly labeled dry seal able

containers. Remove residual using hot soapy water. For large spills: Dike and pump into suitable and properly labeled containers and dispose of in professional manner.

HANDLING AND STORAGE

Precautions: Do not get in eyes, on skin, on clothing. Do not breathe vapor, mist or spray. Use only with adequate ventilation. Individuals should wash thoroughly after handling. For industrial use only.

Storage Information: Keep away from heat, sparks and open flame. Ground and bond metal containers for liquid transfer to avoid static spark. Store at temperatures between 2°C and 60°C in tightly closed containers in dry area to prevent moisture and carbon dioxide contamination.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment:	Wear protective equipment to prevent exposure and personal contact.
Skin Protection:	Impervious gloves
Respiratory Protection:	Organic chemical cartridge respirator if needed in non-vented area
Eye Protection:	Splash-proof chemical goggles
Engineering Controls:	Good general mechanical ventilation and local exhaust

PHYSICAL AND CHEMICAL PROPERTIES

	<u>Resin</u>	<u>Hardener</u>
Appearance (Color):	Light Gray	Green
Odor:	Benign	Amine-like
Physical State:	Paste	Paste
Solubility in Water (% by weight):	Negligible	Partially
Density:	11 lb/gal	8.1 lb/gal
PH:	No data	>7
Viscosity:	>100,000 cps	<100,000 cps

STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong oxidizers, strong acids and bases

Hazardous Decomposition Products:

Resin - Carbon Monoxide, Carbon Dioxide, Phenolics

Hardener - Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Nitric Acid and Aldehydes.

Hazardous Polymerization:

Resin - will not occur

Hardener - will not occur

TOXICOLOGICAL INFORMATION

Acute Oral Effects (Ingestion):

Resin - LD50 10,000 – 11,400 mg/kg body weight

Hardener - LD50 (rabbits): <2000 mg/kg body weight

Sensitization: Can cause skin and respiratory sensitization

Skin Irritation: Irritant

Eye Irritation: Irritant

ECOLOGICAL INFORMATION

Additional Information: Amines, in general, may be toxic to aquatic organisms. Epoxies are only slightly soluble in water.

DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with federal, state and local regulations. The hardener carries an RCRA waste code of D002.

TRANSPORT INFORMATION

Resin- Not regulated by D.O.T.

Hardener- UN3267, Corrosive liquid, basic, organic, n.o.s. (m-Xylylenediamine, Nonylphenol), 8, III

REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is not considered hazardous.

Resource Conservation and Recovery Act (RCRA): Resin: Not a hazardous waste under RCRA (40 CFR 261). Hardener: D002

EPA SARA Title III: Section 304 - CERCLA: Not listed.

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

EPA SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Sec. 313 (40 CFR 372).

OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific features and shall not establish a legally valid contractual relationship.