

Ergon Armor

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MSDS No. NI003

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Material Safety Data Sheet

SC-5400

PRODUCT IDENTIFICATION

Trade Name: SC-5400

Chemical Family: Epoxy

Intended Use or Product Type: Epoxy Coating

COMPOSITION/INFORMATION ON INGREDIENTS

OSHA Hazardous Ingredients: NA

Resin: Novolac Resin: CAS# 28064-14-4, 30-50%
OSHA (PEL/STEL) - NE
ACGIH (TWA/STEL) -NE

Hardener: Cycloaliphatic Amine: CAS# Mixture 80-90 %
OSHA (PEL/STEL) - NE
ACGIH (TWA/STEL) -NE

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 - If large amounts are ingested, induce vomiting if conscious. Low toxicity.
Hardener - Call physician immediately. Give generous amounts of water if conscious, but **do not induce vomiting.**

Skin: Resin – Promptly wash with mild soap and water.

Inhalation: Hardener - Promptly wash with mild soap and water.
Resin - Remove to fresh air. Give oxygen if breathing is difficult.
Hardener - Remove to fresh air. Give oxygen if breathing is difficult.

Eyes: Resin -- Immediately flush eyes with water for 15 minutes with running water. Call physician.
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> >300°F (149°C)	<u>Hardener</u> >200°F (93°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)

Resin- Shovel into closeable container for disposal.

Hardener- Absorb into sand or other absorbent material. Shovel into closeable container and dispose of in a 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	Brown
Odor:	None	slight sweet odor
Physical State:	Liquid	Liquid
Solubility in Water (% by weight):	Negligible	Negligible
Melting Point	<0°F (-18°C)	<0°F (-18°C)
Density:	1.51	0.95
PH:	ca 5	ca 10
Volatility (% by volume)	0.05	0.03

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 in a fire, Fumes, Ammonia when heated and Aldehydes.

Hazardous Polymerization:

Resin - will not occur

Hardener - will not occur

TOXICOLOGICAL INFORMATION

Acute Oral Effects (Ingestion):

Resin - LD₅₀ (rabbits): 4000 mg/kg

Hardener - LD₅₀ (rabbits): >1200 mg/kg

Acute Dermal Toxicity (LD₅₀, rabbit)

Resin - >20,000 mg/kg

Hardener - >1000.00 mg/kg

Acute Inhalation Toxicity (LD₅₀, rat)

Resin - Not a problem unless heated in high temperature.

Hardener - No data.

Eye Irritation:

Resin- minor transient irritation.

Hardener- 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.

TRANSPORT INFORMATION

Resin- Not regulated by D.O.T.

Hardener- UN2735, Amines, Liquid, Corrosive, N.O.S. (Cycloaliphatic Amines), 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.

Hazard Class:

Resin-Irritant

Hardener- Irritant

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

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).

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").

Resin- none

Hardener- none

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.