

**ERGON ARMOR**

**Novocoat R3900 B**

**MSDS No. EA085**

**Date of Preparation: March 18, 2010**

**Revision No. 1**

**Section 1 – Chemical Product and Company Information**

<b>Product/Chemical Name:</b>	Novocoat R3900 B
<b>Chemical Formula:</b>	NA
<b>CAS Number:</b>	NA
<b>Other Designations:</b>	Hardener
<b>General Use:</b>	Coatings
<b>Manufacturer:</b>	ERGON Armor; P O Box 1639; Jackson MS 39215-1639; Phone 601-933-3000; Hours of Operation 8:00 am – 5:00 pm; ERGON 24 Hour Emergency Phone Number 1-800-222-7122; CHEMTREC 1-800-424-9300.

**Section 2 – Composition / Information on Ingredients**

<b>Ingredient Name</b>	<b>CAS Number</b>	<b>% Volume</b>
Mercaptan Terminated Polymer	101359-87-9	60-80
1-(2-aminoethyl) Piperazine	140-31-8	1-5
2,4,6- tris(dimethylaminomethyl)phenol	90-72-2	1-5

INGREDIENT	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDHL
	TWA	STEL	TWA	STEL	TWA	STEL	
Mercaptan Terminated Polymer	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
2-piperazin-1-ylethylamine	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
2,4,6- tris(dimethylaminomethyl)phenol	None estab.	None estab.	5 ppm	None estab.	None estab.	None estab.	None estab.

**Section 3 – Hazards Information**

**EMERGENCY OVERVIEW**

<p align="center">HMIS H-2 F-1 R-0 PPE* * Sec.8</p>
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**POTENTIAL HEALTH EFFECTS**

**Primary Entry Routes:** Inhalation and absorption.

**Target Organs:** Skin, eyes, kidney, liver, pancreas, spleen

**Acute Effects**

**Inhalation:** Corrosive to mucous membranes and respiratory tract.

**Eye:** Corrosive to eyes

**Skin:** Corrosive to skin. May cause sensitization by skin contact

**Ingestion:** Harmful if swallowed. Corrosive to digestive tract.

**Carcinogenicity:** IARC, NTP, and OSHA do not list this product as carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:** Pre-existing eye, skin, kidney, liver and respiratory disorders

**Chronic Effects:** Prolonged or repeated overexposure to this material may cause central nervous system damage.

#### Section 4 – First Aid Measures

**Inhalation:** Move exposed person to fresh air. If not breathing, provide artificial respiration by trained personnel. Seek medical attention if adverse health effects persist or are severe.

**Eye Contact:** Flush thoroughly with water for at least 15 minutes. Seek medical attention.

**Skin Contact:** Flush contaminated skin with plenty of water, 15 minutes. Do not remove clothing if it sticks to the skin. Seek medical attention. Wash clothing before reuse. Clean shoes thorough before reuse.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Seek medical attention.

**After first aid, get appropriate in-plant paramedic or community medical support.**

**Special Precautions/Procedures:** It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation because of irritation hazard. Contact local poison treatment specialist if ingested.

Provide adequate ventilation to keep vapors below allowable exposure levels. Use PPE appropriate for the task.

#### Section 5 – Fire Fighting Measures

**Flash Point:** > 200°F (93.3 °C)

**Flash Point Method:** TCC

**Auto Ignition Temperature:** No data

**LEL:** NA

**UEL:** NA

**Flammability Classification:** Class IIIB

**Extinguishing Media:** Water spray, dry chemical, foam and carbon dioxide.

**Unusual Fire or Explosion Hazards:** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous Combustion Products:** oxides of carbon and nitrogen, hydrogen sulfide.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways. Use a water supply to cool fire-exposed containers.

**Fire-Fighting Equipment:** Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Corrosion proof suit.

NFPA



#### Section 6 – Accidental Release Matters

**Spill/Leak Procedures:** Stop spill at source. Confine spill by diking or impoundment. Remove sources of heat or ignition. Clean-up spill but do not flush to sewer or surface water. Ventilate area and avoid breathing vapors or mists.

**Small Spills:** Stop spill at source if possible. Isolate and confine by diking, or similar method. Remove discharged material.

**Large Spills:**

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Cleanup:** Mix with inert absorbent material such as soil, sand, or oil dry, to stabilize.

**Regulatory Requirements:** Notify local health and pollution control agencies as appropriate. Follow applicable OSHA regulations (29 CFR 1900.120). This material is not a hazardous waste as defined in RCRA. For disposal follow all federal, state, and local regulations regarding solid waste.

#### Section 7 – Handling and Storage

**Handling Precautions:** Use appropriate PPE (see section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Empty containers retain residue. Do not reuse containers.

**Storage Requirements:** Store in original container protected from direct sunlight in a dry, cool, well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep containers tightly closed and sealed. Do not store in unlabeled containers.

**Regulatory Requirements:** None known.

#### Section 8 – Exposure Controls / Personal Protection

**Engineering Controls:** Use only with adequate ventilation. If user operations generate dust, fumes, gas,

vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs if established (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH -approved respirator. Select respirator based on its suitability, to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. **Use self-contained, positive-pressure, breathing apparatus (SCBA) when this product is used in a confined or enclosed space and exposure limits are exceeded or hydrogen sulfide concentration is unknown or exceeds 20 ppm. Organic vapor respirators may be used with good ventilation when organic vapors are less than 1000 ppm or ten times permissible exposure limit, whichever is less. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA until it is determined that a hazardous atmosphere and/or oxygen deficient atmosphere is NOT PRESENT. Warning! air-purifying respirators do not protect workers in oxygen-deficient atmospheres.** If respirators are used, OSHA requires a written respiratory protection program that includes: procedures for selecting respirators; medical evaluation; fit testing; use in routine and emergency situations; cleaning, disinfecting, storing, inspecting, repairing, discarding and maintaining respirators; adequate air quality, quantity and flow; training in respiratory hazards; training in use of respirators; and an evaluation of the effectiveness of the respiratory program.

**Protective Clothing/Equipment:** Wear protective gloves, boots, aprons, and gauntlets as need to prevent skin contact. Goggles and face shields should be used in areas where splashing may occur. Wear protective eyeglasses or safety goggles per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, or smoking.

### Section 9 – Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Light yellow with sulfur odor

**Odor Threshold:** No data

**Vapor Pressure:** Not determined

**Vapor Density (Air = 1):** No data

**Formula Weight:** No data

**Density:** 8.5 – 9.0 lb/gal

**Specific Gravity (H<sub>2</sub>O = 1, at 4°C):** approx. 1.1

**pH:** Basic

**Water Solubility:** Partial

**Other Solubilities:** No data.

**Boiling Point:** Not determined

**Freezing/Melting Point:** Not determined.

**Viscosity:** No data

**Refractive Index:** Not determined

**Surface Tension:** Not determined

**% Volatile:** Nil

**Evaporation Rate:** No data.

### Section 10 – Stability and Reactivity

**Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing agents, acids, heat sources, moisture

**Conditions to Avoid:** Do not store near open flame. Do not freeze.

**Hazardous Decomposition Products:** Primary decomposition products are carbon monoxide and carbon dioxide. Upon heating, hydrogen sulfide may be released.

### Section 11 – Toxicological Information

**Eye Effects:** Vapors may cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.

**Acute Inhalation Effects:** Human, inhalation, TC<sub>LO</sub>: No data.

**Carcinogenicity:** No known carcinogens present

**Teratogenicity:** No data.

**Skin Effects:** Causes smarting of the skin and irritation.

**Acute Oral Effects:** No data

**Mutagenicity:** No data.

**Chronic Effects:** Prolonged and repeated skin contact may cause skin sensitization.

### Section 12 – Ecological Information

**Ecotoxicity:**

2,4,6- tris(dimethylaminomethyl)phenol: LC50 (96 h): 70.9 mg/l (PISCES)

**Environmental Fate:**

**Environmental Transport:** No data.

**Environmental Degradation:** No data.

**Soil Absorption/Mobility:** Poorly soluble in water

### Section 13 – Disposal Considerations

**Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

**Disposal Regulatory Requirements:** Solidified waste material should not be a hazardous waste under RCRA guidelines. Follow Federal, state, and local regulations for disposal of solid waste.

**Container Cleaning and Disposal:** Follow Federal, state, and local regulations for disposal of the waste material, regardless of its waste classification.

### Section 14 – Transport Information

Shipments by rail, highway, or vessel, not subject to HMR. Shipments by air use the following shipping information:

**AIR TRANSPORT ONLY:**

**Shipping Name:** Aviation regulated liquid, n.o.s. (contains mercaptan terminated polymer)

**Shipping Symbols:** NA

**Hazard Class:** 9

**ID No.:** UN3334

**Packing Group:** III

**Label:** 9

**Special Provisions (172.102):**

**Packaging Authorizations:**

**a) Exceptions:**

**b) Non-bulk Packaging:**

**c) Bulk Packaging:**

**Air Shipping description:**

*"UN3334, Aviation regulated liquid, n.o.s. (contains mercaptan terminated polymer), 9, III"*

**Quantity Limitations:**

**a) Passenger, Aircraft, or**

**Railcar:** 5 L

**b) Cargo Aircraft Only:**

60 L

**Vessel Stowage**

**Requirements:**

**a) Vessel Stowage:**

**b) Other:**

### Section 15 – Regulatory Information

**EPA Regulations:**

**RCRA**

RCRA Hazardous Waste Number: Not listed.

RCRA Hazardous Waste Classification (40 CFR 261): This material should not be hazardous due to characteristics.

**CERCLA**

CERCLA: Not listed.

CERCLA Reportable Quantity (RQ): This material is not a listed hazardous substance and does not have a reportable quantity. However, if spilled into waters of the U.S., it may be reportable under the Clean Water Act.

**SARA**

SARA 311/312 Codes: Fire–No, Pressure–No, Reactivity–No, Immediate (acute)–Yes, Delayed (chronic)–Yes.

SARA 313: None

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed.

**OSHA Regulations**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): See Table in Section 2.

OSHA Specifically Regulated Substance: No

**State Regulations:**

### Section 16 – Other Information

**Revision Notes:**

**Additional Hazard Rating Systems:** WHMIS Class D, Division 2 – poisonous and infections material; other toxic effects; Class E – Corrosive material

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