

MATERIAL SAFETY DATA SHEET

EMS-P – Part A

SECTION I

Product Identification and General Information

Product Name: EMS-P - Part A
 Product Class: Modified Aliphatic Amine Solution
 HMIS Codes: H F R P
 2 1 0 G

Date Prepared: 04/16/2010
 24 Hour Emergency Assistance: Chemtrec
 1-800-424-9300

SECTION II

Hazardous Ingredients

2-Propoxyethanol
 Acetic Acid
 Polyethylene Polyamine Adduct

<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
2807-30-9	N/E	N/E
64-19-7	N/E	N/E
*	N/E	N/E

* Trade Secret - listed in TSCA inventory

SECTION III

Physical Data

Boiling Point: N/A
 Vapor Pressure: N/A
 Vapor Density: Heavier Than Air
 Specific Gravity: 1.2
 Percent Volatiles: 64

Solubility in Water: Miscible
 Evaporation Rate: Slower Than Butyl Acetate
 Appearance: Medium Viscosity Liquid
 Odor: Slight Ammonia and Solvent Odor

SECTION IV

Fire and Explosion Hazard Data

Flash Point: >200° F (SETA Flash)
 Flammable Limits: % Volume in Air
 LEL: N/A
 UEL: N/A

Extinguishing media: Use water fog, alcohol foam, dry chemical or CO2.

Hazardous Combustion Products: Carbon Monoxide, Aldehydes, Acids and other Organic Compounds may be formed.

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 coat, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

Fire and explosion hazards: Containers exposed to intense heat from fire should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Cool with large quantities of water.

SECTION V

Reactivity Data

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: Avoid heat and flames. May react vigorously with strong oxidizing agents. Epoxy resins or isocyanates. Reactions may evolve considerable heat. May react vigorously with mineral or organic acids.

SECTION VI

Health Hazard Data

Primary Route of Entry: Dermal, Inhalation

Eye Contact: May be severely irritating to the eyes. May cause corneal damage.

Skin Contact: May be moderately irritating to the skin. May be toxic or harmful if absorbed thru skin. May cause skin sensitization.

Inhalation: May cause irritation to the nose, throat and respiratory tract. May be toxic if inhaled. May cause respiratory tract sensitization.

Ingestion: May be moderately toxic and may be harmful if swallowed. May produce damage to the red blood cells.

Chronic Overexposure:

SECTION VII

Emergency First Aid Procedures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 min. while holding eyelids open. Seek medical attention.

Skin Contact: Immediately remove contaminated clothing. Wipe excess from skin and flush with plenty of water. Use soap if available. Do not reuse clothing until thoroughly cleaned. Seek medical attention.

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

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention.

SECTION VIII

Special Protection Information

Respiratory Protection: Avoid prolonged or repeated breathing of vapors. Use a NIOSH approved respirator for organic vapors to prevent overexposure.

Ventilation: Use explosion-proof ventilation as required to control vapor concentrations.

Eye Protection: Wear chemical goggles if there is a likelihood of contact with eyes.

Skin Protection: Avoid prolonged or repeated contact with the skin. Wear chemical resistant gloves and other clothing as required to minimize contact.

SECTION IX

Spill or Leak Procedures

Steps to be taken if material is released or spilled:

May burn although no readily ignitable. For large spills wear respirator and protective clothing. Shut off source of spill or leak, if safe to do so, dike and contain. Remove with vacuum truck or pump to salvage vessel. Soak up residue with absorbent material. Flush with water to remove trace residue.

Small Spills: Take up with an absorbent material and dispose of properly.

Waste Disposal Method: Dispose of material in accordance with all federal, state and local regulations.

SECTION X

Shipping Data

D.O.T. Shipping Name: Aliphatic Amine Solution

Technical Shipping Name: Aliphatic Amine Solution, 25%

D.O.T. Hazard Class: Not Regulated

UN/NA Number:

Reportable Quantity: None

D.O.T. Labels Required: None

Freight Class: 55

MATERIAL SAFETY DATA SHEET

EMS-P – Part B

SECTION I

Product Identification and General Information

Product Name: EMS-P - Part B
Product Class: Modified Bisphenol F Epoxy Resin
HMIS Codes: H F R P
2 1 0 G

Date Prepared: 04/16/2010
24 Hour Emergency Assistance: Chemtrec
1-800-424-9300

SECTION II

Hazardous Ingredients

Oxirane, Mono[(C12-14-alkyloxy)methyl] Dervis

CAS#
68609-97-2

OSHA PEL
N/E

ACGIH TLV
N/E

SECTION III

Physical Data

Boiling Point: >300°F
Vapor Pressure: 1.3 mm Hg
Vapor Density: Greater Than Air
Specific Gravity: 1.15
Percent Volatiles: 0

Solubility in Water: Slight
Evaporation Rate: N/A
Appearance: Clear Light Colored Liquid
Odor: Mild Solvent Odor

SECTION IV

Fire and Explosion Hazard Data

Flash Point: >200°F

Flammable Limits:

LEL: N/A

UEL: N/A

Extinguishing media: Water Fog, Alcohol Foam, Dry Chemical.

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide and Various Hydrocarbons.

Special Fire Fighting Procedures: Wear full protective equipment including NIOSH approved Self-Contained breathing apparatus.

Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground or moved by ventilation and ignited by an open ignition source.

SECTION V

Reactivity Data

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: Avoid contact with strong oxidizing agents . Lewis or mineral acids and strong mineral or organic bases, especially aliphatic amines. Reaction may evolve considerable heat.

SECTION VI

Health Hazard Data

Primary Route of Entry: Dermal, inhalation.

Eye Contact: Can cause severe irritation, redness, tearing and blurred vision.

Skin Contact: Can cause skin irritation. May cause skin sensitization.

Inhalation: May cause nasal and respiratory irritation. Central Nervous system effects including dizziness, weakness, nausea and headache.

Ingestion: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Overexposure: Skin sensitization may be evidenced by rashes.

SECTION VII

First Aid

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open.

Seek medical attention.

Skin: Immediately remove contaminated clothing. Wipe excess from skin and flush with plenty of water.

Use soap if available. Do not reuse clothing until thoroughly cleaned. Seek medical attention.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention.

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

SECTION VIII

Special Protection Information

Respiratory Protection: Wear NIOSH approved respirator for organic vapor to prevent overexposure.

Ventilation: Provide sufficient ventilation to maintain exposure below level of overexposure.

Eye Protection: Chemical splash goggles or other approved safety glasses.

Skin Protection: Wear chemical resistant gloves and other clothing as required to minimize contact.

SECTION IX

Spill or Leak Procedures

Steps to be taken if material is released or spilled:

Large Spill: Eliminate all ignition sources. Wear respirator and other protective clothing. Stop spill at source. Dike and contain spill. Pump or vacuum transfer spilled material to a clean recovery vessel.

Soak up residue with absorbent material.

Small Spills: Absorbent material should be used to take up the spill.

Waste Disposal Method: Dispose of material in accordance with all federal, state and local regulations for disposal.

SECTION X

Shipping Data

D.O.T. Shipping Name: Epoxy Paint

Technical Shipping Name: Epoxy Resin

D.O.T. Hazard Class: Not Regulated

UN/NA Number:

Reportable Quantity: None

D.O.T. Labels Required: None

Freight Class: 55