

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: FR-1

REVISION DATE: SEPTEMBER 14, 2010

For Chemical Emergency (Spill, Leak, Fire, Exposure or Accident) CALL CHEMTREC Day or Night 800-424-9300 For International, Call 703-527-3887 (Collect Calls Accepted)

** FOR INDUSTRIAL USE ONLY **

Section I - Product Information and Company Identification

CHEMICAL FAMILY: Polyacrylamide Copolymer

MOLECULAR FORMULA: Mixture

Section II - Composition, Information on Ingredients

Chemical Name	Wt.%	CAS#	
Anionic Polyacrylamide Copolymer	20-30	NA	
Petroleum Distillate	20-50	64742-47-8	
Ammonium Chloride	<2		

Section III - Hazards Indentification

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Opaque, off-white emulsion

IMMEDIATE CONCERNS: CAUTION! May cause eye and skin irritation. Mist may be harmful if

inhaled.

POTENTIAL HEALTH EFFECTS

EYES: Irritating, but does not injure eye tissue.

SKIN: Low order of toxicity. Irritating.

INGESTION: Low order of toxicity. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

INHALATION: Irritating to eyes and respiratory tract in high concentrations. Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and

increased incidence of infection.

CANCER STATEMENT: This product (or any component at a concentration of 0.1% or greater) is not listed by the NTP, IARC, OSHA or EPA as a carcinogen.

Section IV - First Aid Measures

EYES: Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN: Wash with large amounts of water; use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse. If irritation persists, seek medical attention.

INGESTION: First aid is normally not required. If spontaneous vomiting occurs, keep head below hips to prevent aspiration, monitor for breathing difficulty. If symptoms develop, get prompt medical attention.

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Polymers & Chemicals

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INHALATION: In case of adverse exposure to vapors and/or aerosols, immediately remove the affected victim from exposure and get immediate medical attention. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.

Section V – Fire Fighting Measures

FLASHPOINT AND METHOD: > (200°F) SETA Flash CC

FLAMMABLE LIMITS: 1.3 to 8.1% @ 77 F (petroleum distillate)

AUTOIGNITION TEMPERATURE: Not Available

HAZARDOUS COMBUSTION PRODUCTS: None known

OTHER CONSIDERATIONS: Contact with water may form a gel which is extremely slippery and difficult to clean up.

FIRE FIGHTING PROCEDURES: Use water to cool fire-exposed surfaces and to protect personnel. Isolate "fuel" supply from fire. Use foam, dry chemical, or water spray to extinguish fire.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Section VI - Accidental Release Measures

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Prevent additional discharge of material, if possible to do so without hazard. If possible, try to contain and recover floating material.

LAND SPILL: Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, advise authorities.

GENERAL PROCEDURES: Spilled product should be scooped up as much as possible and the remaining thin layer absorbed with a solid material such as sweeping compound. Washing the area with water should only be attempted after most of the polymer has been removed.

RELEASE NOTES: If spill was into water, it may require reporting to the National Response Center, see Section 15, Clean Water Act. Recycle or dispose of recovered material in accordance with all federal, state, and local regulations.

COMMENTS: Spilled material is slippery. Contact with water may form a highly viscous and stringy material which is extremely slippery, difficult to clean up, and can clog small drains.

Section VII - Handling and Storage

GENERAL PROCEDURES: Keep container closed. Both open and handle containers with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

HANDLING: Mix will before using. Upon standing, product may stratify (as noted by a clear upper layer of oil). Mild agitation will restore uniformity.

STORAGE: Do not use aluminum, copper or mild steel tanks, pumps or piping with this product. Store in glass, stainless steel, plastic or epoxy lined containers.

STORAGE TEMPERATURE: Keep from freezing

STORAGE PRESSURE: Atmospheric

SHELF LIFE: At least six months in unopened containers.

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Section VIII - Personal Protection

ENGINEERING CONTROLS: Ventilation should be provided to control worker exposures and prevent health risk; and as necessary to reduce, prevent and control aerosol generation.

PERSONAL PROTECTION

EYES AND FACE: Safety glasses with side shields.

SKIN: Where contact may occur, wear chemical resistant gloves, and long sleeves.

RESPIRATORY: Where concentrations in air may exceed the limits given in this section or Section 2 and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

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OTHER USE PRECAUTIONS: Safety shower and eyewash station are recommended in area of use.

Section IX – Physical and Chemical Properties

PHYSICAL STATE: Liquid

VAPOR PRESSURE: <10 mm Hg at (77°F)

BOILING POINT: ~ (212°F) (initial)

ODOR: Slight hydrocarbon odor

VAPOR DENSITY: >1 (Air = 1)

FREEZING POINT: -20°F

EVAPORATION RATE: <1 (n-Butyl Acetate=1) **DENSITY**: 8.6 to 9.0 lb/gal at (80°F)

SPECIFIC GRAVITY: 1.03 to 1.08 at (80°F)

VISCOSITY: 400 to 1200cP at (80°F), Brookfield RVT (sp#3 @ 50 rpm)

(VOC): 22.7 % (calculated)

COMMENTS:

WATER SOLUBILITY: Soluble with vigorous agitation. Contact with water at a product content greater then approximately 2% (without vigorous agitation) results in a highly viscous and stringy material which is extremely slippery, difficult to clean up, and can clog small drains.

Section X – Stability and Reactivity

STABLE: YES

HAZARDOUS POLYMERIZATION: NO HAZARDOUS DECOMPOSITION: None

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

Section XI- Toxicological Information

TARGET ORGANS: At high oral doses, the petroleum distillate used in this product caused reversible damage to the liver and kidney (male only) of rats. These effects are not relevant to humans at occupational levels of exposure.

Section XII - Ecological Information

GENERAL COMMENTS: No information available.

Section XIII - Disposal Considerations

EMPTY CONTAINER: "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

RCRA/EPA WASTE INFORMATION: Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

GENERAL COMMENTS: Ensure compliance with local, state, and Federal regulations in disposing of this container, residual contents, or rinsing.

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Section XIV – Transport Information

Not Regulated for Shipment

Section XV - Regulatory Information

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) FIRE: NO PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES CHRONIC: NO 311/312 HAZARD CATEGORIES: Acute Health.

313 REPORTABLE INGREDIENTS: This product does not contain Section 313 Reportable Ingredients. CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and must be reported to the National Response Center by calling 800-424-8802

REPORTABLE SPILL QUANTITY: > 200,000 lb.

EPA RQ INGREDIENT: Ammonium Chloride

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements .

RCRA STATUS: Discarded product, as sold, would not be considered a RCRA Hazardous Waste. CLEAN WATER ACT: This product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.

CANADA INGREDIENT DISCLOSURE LIST: This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

Section XVI - Miscellaneous Information

HMIS CODES

FLAMMABILITY: 1 HEALTH: 1 PHYSICAL HAZARD: 0

HMIS RATINGS NOTES: This information is for people trained in Key the National Paint & Coatings Association's 4 = Severe (NPCA)

Hazardous Materials Identification 3 = Serious System (HMIS). 2 = Moderate 1 = Slight 0 = Minimal **MANUFACTURER DISCLAIMER**: NOTICE: We believe that the information contained on this Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily either all-inclusive or fully adequate in every circumstance. Also, these suggestions should not be confused with or followed in violation of applicable laws, regulation, rules or insurance requirements. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

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