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SEP 12 1990

Emergency Phone: 800-424-9300 (CHEMTREC)

MATERIAL SAFETY DATA SHEET

Date: February 1, 1989

PRODUCT NAME: Formula #431 M

Formula: Mixture: Polymaleic Acid/Aminotrinitrophosphonate/Potassium hydroxide/Sodium Molybdate/water

Chemical Type: Organic acid/esters in alkali water solution

CAS No: n/a HMIS RATINGS: Health-2 Flammability-0
Reactivity-0 Protection-B

DOT Shipping Name: none. (no DOT hazard)

HAZARDOUS INGREDIENTS

TWA

CARCINOGEN
(OSHA, NTP, IARC)

Sodium molybdate, dihydrate

5 mg/m³
(as Mo)

no

Aminotri(methylenephosphonic acid)

none

no

Potassium Hydroxide

2 mg/m³ Ceiling

no

CHEMICAL AND PHYSICAL PROPERTIES

Appearance: Clear yellow liquid

Boiling Pt.: >212°F.

Odor: slight

Melting Point: n/a

pH: approx. 10 - 10.5

Spec. Gravity (H₂O=1): 1.15

Water Solubility: 100%

Vapor Pressure (mm Hg): n/a

Viscosity, Cp @ 25°C.: n/a

FIRE AND EXPLOSION HAZARDS

Flash Point (Method): none Explosion Limits: Upper n/a Lower n/a

Extinguishing Media: n/a (water solution)

Special Firefighting Procedures and Hazards: Avoid skin and eye contact.
Wear head and body protection if exposure is possible.

REACTIVITY INFORMATION

Stable: X Unstable: Precautions: n/a

Incompatibility: Strong oxidizers and acids may cause heating and spattering.

Hazardous Decomposition Products: when burned: CO₂, CO, hydrocarbons, NOx

Hazardous Polymerization Occurs: Does Not Occur: X

HEALTH HAZARDS - PROTECTIVE MEASURES - FIRST AID

Inhalation: Breathing of liquid or mists causes irritation and possible burns.
Wear approved liquid/mist respirator if exposure is likely.
Remove to fresh air. Get prompt medical attention if effects persist.

Skin: Irritant.
Wear alkali-resistant protective gloves, and complete body protection as needed.
Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes.

Eyes: Severe irritant and may cause eye burns.
Wear splash-proof goggles. Provide convenient eyewash stations.
Flush immediately with water for at least 15 minutes. Get prompt medical attention.

Ingestion: Causes irritation and may burn membranes. High doses of molybdenum may damage the liver and kidneys.
Wear face shield when exposed, if not using respirator. Avoid swallowing.
Rinse mouth. Drink lots of water. Induce vomiting. Get medical attention if effects persist.

Most likely routes of entry: Skin, Eyes.

Other Important Medical or Precautionary Information: None

PRECAUTIONS FOR SAFE HANDLING AND USE

Spills and Leaks: Take up small spills with absorbent. Larger spills should be contained by diking or otherwise and collected for reuse or disposal. Do not flush large amounts down sewers without neutralization and/or water treatment facility approval. Avoid contact with skin or eyes. Response personnel should use eye and skin protection. RQ for potassium hydroxide is 1000 lb. (8,000 lb. of product)

Storage and Handling: Do not store near strong acids or oxidizers. Check daily for any leaks from containers, vessels, pumps and piping, and remedy as necessary.

Waste Disposal: In accordance with applicable regulations in permitted disposal facilities. May be acceptable in sewers if neutralized and approved by local water treatment facility.

Empty Containers: Rinse well with water before handling and disposal.

Other Precautions: none

REGULATORY INFORMATION

Reportable for SARA Title III, S.313 (Form R): none

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