

MATERIAL SAFETY DATA SHEET - For chemical emergency, spill, leak, fire, exposure or accident, call Chemtrec day or night 1-800-424-9300.

Product Name: MANAGANESE POLYAMINE

Product ID#: 01

Section I MANUFACTURER'S INFORMATION

Manufacturer' Name & Address

Northwest Ag
821 S. Chestnut
Pasco, WA. 99301

Emergency Telephone Number:
Number For Information:
Date Prepared:
Revised:

509-547-8234
509-547-8234
November 17, 2000
January 4, 2008

Section II HAZARDOUS INGREDIENTS OF MIXTURES

COMPONENT: % THRESHOLD LIMIT VALUE(units)
Manganese Amino Acid None Established
Inert Ingredients

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE REGULATED UNDER SARA, TITLE III, SECT. 313:

Manganese Compounds (see above) Approx.49%
Manganese Sulfate

Section III IDENTITY INFORMATION

Chemical Name and Synonyms: Manganese Polyamine

Chemical Family: Micronutrient solution-Mn

SARA TITLE III HAZARD CATEGORY: immediate Y Fire N

Sudden release of pressure N Delayed N Reactive N

Section IV PHYSICAL DATA

APPEARANCE AND ODOR: Sweet, Brown to Dark liquid with virtually no odor.

BOILING POINT 212°F (100°C)

Specific Gravity (Water=1) 1.22

Density: 10.2 lbs. gal.

Vapor Pressure (MM. of Mercury) Not Available

Percent Volatile (By Volume): Approx. 30%

Vapor Density (AIR=1): Not Available

Evaporation Rate (Butyl Acetate =1): Lower than Butyl Acetate

Solubility in water: Miscible

pH: 2.44 at 20° Celsius

Section V FIRE AND EXPLOSION HAZARD DATA

Flash Point (Specify Method/°F): Does not flash; not applicable

Flammable Limits (Percent Volume): Not applicable

Fire Extinguishing Media: Product considered non-combustible, use medium appropriate to surrounding fire, Dry Chemical, Foam, Co2, Water Spray or Fog.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full protective clothing. Smoke and fumes from fire may contain hazardous components.

Unusual Fire and Explosion Hazards: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

SECTION VI REACTIVITY DATA

Stability: Stable Conditions to avoid: Excessive heat.

Incompatibility (Materials to avoid): Strong oxidizers.

Hazardous Decomposition Products: Not Known. However, oxides of nitrogen and other hazardous products may be formed in fire situation.

Hazardous Polymerization: Will not Occur

Conditions to Avoid: None

Product Name: Manganese Polyamine

SECTION VII HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Routes of Entry: Ingestion, inhalation, eyes and skin contact. Most likely route of exposure is dermal contact. Product is considered only slightly to moderately toxic. May be harmful if swallowed or inhaled. May cause irritation of eyes, nasal passages, throat and skin. Prolonged or repeated exposure may lead to reddening of skin, rash, dermatitis or other skin reactions.

EMERGENCY AND FIRST AID PROCEDURES: Call a physician immediately in all cases of suspected poisoning.

Ingestion: Harmful if swallowed. Call a physician immediately.

Eyes: Flush with running water for at least 15 minutes while holding eyelids open. If irritation persists, get medical attention.

Skin: Remove all contaminated clothing. Wash skin and hair thoroughly with soap and water. Wash clothing before reuse. If irritation persists, get medical attention.

Inhalation: Remove to fresh air. If irritation persists, get medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known

POTENTIAL CARCINOGEN STATUS: Not known. None of the components in this product is listed by IARC, NTP or OSHA as a carcinogen.

SECTION VIII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Contain spill; absorb liquids by covering with clay or tuber absorbent material; vacuum, scoop or sweep up wastes and place in container for disposal.

WASTE DISPOSAL METHOD:

Material which cannot be used at the site should be disposed of in an approved waste disposal facility recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill. Do not contaminate water supplies by disposal of wastes or containers.

SECTION IX TRANSPORTATION INFORMATION

Special Shipping Notes: This product is not regulated under national or international transport regulations.

SECTION X SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: (Specify type): Not normally required. If vapors may exceed acceptable levels, we use OSHA/NIOSH-approved respirator or mask for protection against pesticide dusts, mists and vapors.

VENTILATION: Local Exhaust: Not normally required.
Mechanical (General): Use if ventilation is not adequate.

PROTECTIVE GLOVES: Work gloves or impervious gloves recommended.

EYE PROTECTION: Not normally required; follow local work rules.

OTHER PROTECTIVE EQUIPMENT: Wear clothing consistent with good practices for handling and applying pesticides. Wash clothing before reuse.

SECTION XI SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in a cool, dry place, away from children and food and feed products. Do not contaminate other stored products or the storage area by handling or storage of this product. Immediately clean up any spills which occur during handling and storage. Protect from freezing.

OTHER PRECAUTIONS:

Do not contaminate water supplies by handling and storage of product, cleaning of equipment or disposal of wastes. Keep work and storage areas clean. Read and follow precautionary measures on product label.

Prepared By: David Bergevin

Date: November 17, 2000

All information, recommendations and suggestions appearing herein concerning our products are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his/her own use of the product described herein. Since the actual use by others is beyond our control, we make no guarantee, expressed or implied, as to the effects of such use, the results to be obtained, or the safety and toxicity of the product; nor do we assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.