ACTAGRO

MATERIAL SAFETY DATA SHEET

EMERGENCY NUMBERS: (559) 843-2700 FIRE HAZARDS: *

(559) 843-2700 (559) 843-2700 Manufacturer: Health Risk: 0 Company Resp: Flammability: n

February 12, 1999 Reactivity: MSDS Preparation Date

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*NFPA - Scale: 5= N/A 4=Extreme 3=High 2=Moderate 1=Slight 0=Insignificant

SECTION I - IDENTITY

Synonyms & Trade Names (Family): Magnesium Nitrate Solution CAS No.

Not Assigned/mixture

4.0% Magnesium Formula: EPA No.

N/A

Hazard Class: Non-Hazardous NIOSH No. N/A Manufacturer: Actagro LLC DOT/UN/NA No. N/AAddress: 4516 N. Howard Ave Kerman, Ca 93630 Part

N/A No.

SECTION II - HAZARDOUS INGREDIENTS

Ingredient Name: CAS# Contents

ACGIH TLV-TWA Leonardite Extract None Magnesium Nitrate 10377-60-3

SECTION III - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point (F/760 mmHg): N/A Specific Gravity:

1.27

Vapor Pressure (mmHg): Melting Point (F): N/A Vapor Density (air=1): Evaporation Rate (buAc=1) N/A N/A

Percent Volatile byVolume: N/A Viscosity:

Ph Value: 8.4 Solubility Value $(g/100g/H_20,68^0F)$: Unknown Concentration (%/MOL) N/A

Solubility: Soluble in water.

Appearance: Liquid Color: Black Odor: Ordorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (F): Auto Ignition Temp (F):

N/A F P Method N/A Explosion Limits:

Lower %: N/A

Upper%: N/A

NFPA Flammability Rating: Will not burn.

OSHA Flammability Class: N/A

Extinguishing Media: No specific method noted.

Special Fire Fighting Procedures: No specific fire fighting procedures noted.

Evacuation Procedures: No specific evacuation procedure

noted, but evacuation of personnel may still be required in an emergency situation.

No specific recommendation made, but NIOSH Respirator Recommendation:

respiratory protection may still be required under exceptional circumstances when excessive air

contamination exists.

No unusual fire and explosion hazard noted. Unusual Fire and Explosion Hazards:

SECTION V - REACTIVITY DATA AND PHYSICAL HAZARDS

Stability: Normally stable.

Conditions to Avoid:

Reactivity Index: Unknown

Hazardous Decompostion or Byproducts: None

Hazardous Polymerization: Will not polymerize. . . . continued . . .

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ACTAGRO, LLC

Conditions to Avoid: None Water Reactive: N/A

Air Reactive: No
Incompatible Specific Chemicals: None
Incompatible Classes of Chemicals: None

SECTION VI - HEALTH HAZARD INFORMATION

Routes of Entry: Skin absorption; ingestion.

Target organs: No specific target organs.

Toxic Dose (LD 50): N/A

Toxicity Index: Non-toxic.

Permissible Exposure Limits:

OSHA PEL: No standard. Carcinogenicity:

ACGIH TWA: No standard

ACGIH STEL: No standard NIP: No
NIOSH PEL: No standard IARC?: No
NIOSH IDLH: No standard OSHA?: No

Toxicological Information:

Health Warnings: This chemical may cause skin irritation.

Acute and Chronic Health Hazards: No specific acute or chronic health impact noted. Signs and Symptoms of Exposure: No specific symptoms, but this chemical may still

have adverse

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health impact, either in

general, or on certain individuals. Medical Conditions Generally

Aggravated by Exposure: None.

Emergency & First Aid Procedures:

Avoid contact with skin, eyes, or clothing.

In case of contact, immediately flush skin, eyes, or clothing with plenty of water for at least 15 minutes.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material

is released or spilled: Stop leak if possible. Confine the spill. Do not

allow run-off to sewer systems. Try to reclaim the

material, then flush the area with water.

Waste Disposal: Recover and reclaim, or recycle the material.

Precautions to be taken in handling and storing: None.

Other precautions: Non

SECTION V111 - PROTECTION AND CONTROL MEASURES

Respiratory Protection: Not required.

Protective Gloves: No specific hand protection noted, but gloves may still be

advisable. For prolonged or repeated skin contact, use

suitable protective gloves.

Eye Protection: Wear chemical safety goggles where eye exposure is

reasonably probable.

Other Protective Clothing or Equipment: Wear appropriate clothing to prevent

repeated or prolonged skin contact.

Hygienic Work Practices: No specific hygiene procedures, but good personal hygiene

practices are always advisable, especially when working

with chemicals.

Ventilation Requirements: None.

SECTION IX - ADDITIONAL INFORMATION

NOTE: Use with caution and according to specifications on manufacturer's label. MSDS may not fully reflect manufacturer's recommendations. Containers will contain residues of the product. Do not re-use containers for any purpose other than storing or mixing of fertilizers. The information accumulated herein is believed to be accurate but

is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

END OF MSDS