

# ACTAGRO

## MATERIAL SAFETY DATA SHEET

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

Manufacturer: (559) 843-2700      Health Risk: 0  
Company Resp: (559) 843-2700      Flammability: 0  
MSDS Preparation Date February 12, 1999      Reactivity:  
0

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

### SECTION I - IDENTITY

Synonyms & Trade Names (Family): AMMONIUM BORATE CITRATE SOLUTION      CAS No. Not Assigned/Mixture

Formula: 5% Boron      EPA No  
N/A

Hazard Class: Non-Hazardous      NIOSH No. N/A  
Manufacturer: ACTAGRO LLC      DOT/UN/NA No. N/A  
Address: 4516 N. Howard Kerman, Ca 93630      PART  
No. N/A

### SECTION II - HAZARDOUS INGREDIENTS

| Ingredient Name:   | CAS#       | Contents | OSHA | TWA |
|--------------------|------------|----------|------|-----|
| ACGIH TLV-TWA      |            |          |      |     |
| Ammonium Borate    | 12007-58-8 |          |      |     |
| Ammonium Citrate   | 3012-65-5  |          |      |     |
| Leonardite Extract | None       |          |      |     |

### SECTION III - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point (F/760 mmHg): N/A      Specific Gravity: 1.235

Vapor Pressure (mmHg): N/A      Melting Point (F): N/A

Vapor Density (air=1): N/A      Evaporation Rate (buAc=1): N/A

Percent Volatile by Volume: N/A      Viscosity: N/A

8.8      Ph Value:

Solubility Value (g/100g/H<sub>2</sub>O, 68°F): Unknown      Concentration (%/MOL): N/A

Solubility: Soluble in water.

Appearance: Liquid

Color: Black

Odor: Slight ammonia

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (F): N/A      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.

NIOSH Respirator Recommendation: No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

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

### SECTION V - REACTIVITY DATA AND PHYSICAL HAZARDS

Stability: Normally stable.

Conditions to Avoid: N/A  
Reactivity Index: Unknown  
Hazardous Decomposition or Byproducts: None  
Hazardous Polymerization: Will not polymerize.

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Conditions to Avoid: None  
Water Reactive: N/A  
Air Reactive: No  
Incompatible Specific Chemicals: None  
Incompatible Classes of Chemicals: None

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**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 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.

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**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: None

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**SECTION VIII - 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.

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**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