

ACTAGRO, LLC
BORON 2.5%

MATERIAL SAFETY DATA SHEET

EMERGENCY NUMBERS: **800-535-5053 INFOTRAC** **FIRE HAZARDS: ***

Manufacturer:	(559) 369-2222	Health Risk:	0
MSDS Preparation Date	February 12, 1999	Flammability:	0
MSDS Revision Date:	Oct 15, 2014	Reactivity:	0

*NFPA – Scale: 4=Extreme 3=High 2=Moderate 1=Slight 0=Insignificant

SECTION I – IDENTITY

Synonyms & Trade Names (Family): AMMONIUM BORATE CITRATE SOLUTION

Formula: 2.5% Boron Hazard Class: Non-Hazardous

Manufacturer: ACTAGRO, LLC

Address: 677 W. Palmdon Dr. #108
Fresno, CA 93704

SECTION II – HAZARDOUS INGREDIENTS

Ingredient Name:	CAS#
Ammonium Borate	12007-58-8
Ammonium Citrate	3012-65-5
Leonardite Extract	None

SECTION III – PHYSICAL & CHEMICAL CHARACTERISTICS

Specific Gravity:	1.223
pH Value:	7.8-8.8
Solubility:	Soluble in water.
Appearance:	Liquid
Color:	Black
Odor:	Slight ammonia

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

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.
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.

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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.

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, and 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

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

Prepared by Actagro, LLC

Reviewed by Eric Scott

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.