

Material Safety Data Sheet
 May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be consulted
 for specific requirements.

U.S Department of Labor
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List)

Bonide Lime Sulfur Spray

ID # 4402

(Old ID # 3772194)

Date: November 18, 1999

Section I

Bonide Products, Inc.
 6301 Sutliff Road
 Oriskany, NY 13424

(800) 424-9300
 (315) 736-8231

Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Calcium Polysulfide CAS No. 1344-81-6				30.00

Section III - Physical/Chemical Ingredients

BOILING POINT: NA MELTING POINT: NA VAPOR PRESSURE: NA
 VAPOR DENSITY: NA EVAPORATION RATE: NA SOLUBILITY IN WATER: NA

SPECIFIC GRAVITY: 1.273 20°C

APPEARANCE AND ODOR: Deep red/orange liquid, pungent odor of rotten eggs.

Section IV - Fire and Explosion Data

FLASHPOINT: NA FLAMMABLE LIMITS: LEL: NA UEL: NA

FIRE EXTINGUISHING MEDIA: Dry Chemical, Foam, CO2, Water spray.

SPECIAL FIRE FIGHTING PROCEDURES: Smoke from fires involving this material may present unusual hazards. Avoid breathing smoke or mists. Avoid contact with fallout or runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Prevent unauthorized entry to fire area. Read entire bulletin. Persons who have been exposed to contaminate smoke should be immediately relieved from duty and checked for symptoms of poisoning. These should not be mistaken for heat exhaustion or smoke inhalation. See Health Hazard Section for symptoms and First Aid.

UNUSUAL FIRE AND EXPLOSION HAZARD: Keep fire-exposed containers cool with water spray.

Section V - Reactivity Data

STABILITY: Stable to boiling point, will lose water above this temperature.

CONDITIONS TO AVOID: Elevated temperatures can cause containers to burst.

INCOMPATIBILITY (Materials to Avoid): Avoid contact with acids. Hydrogen sulfide gas will be generated, dangerous to inhale explosive at critical concentration.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal combustion products are carbon dioxide and water vapor and may produce oxides of sulfur. Incomplete combustion or thermal decomposition can produce carbon monoxide, oxyhydrocarbon derivatives and sulphur derivatives including hydrogen sulfide.

Section VI - Health Hazard Information

TOXICOLOGY DATA:

Oral LD50 (rat).....	(M) 820 mg/kg	(F) 820 mg/kg
Dermal LD50 (rabbit).....	>2000 mg/kg	
Inhalation LC50 (rat 4-hr exposure).....	(M) 3.9 mg/l	(F) 3.1 mg/l

EMERGENCY AND FIRST AID PROCEDURES: Call a physician immediately in all cases of suspected poisoning. INGESTION: If swallowed, do not give anything but water, see physician immediately. See Note to Physician below. INHALATION: Remove victim to fresh air. If not breathing, administer CPR or artificial respiration. If breathing is difficult or irritation develops, get medical attention.

SKIN: Wash all affected areas with plenty of soap and water while under a safety shower for at least 15 minutes, while removing contaminate clothing and shoes. Do not attempt to neutralize with chemical agents. Seek medical

attention immediately. Discard contaminated clothing and shoes.

Section VI - Health Hazard Information (Cont'd)

EYES: Flush with plenty of water for at least 15 minutes, using an eyewash fountain, if available. Lift upper and lower lids and rinse well under them. Get medical attention.

NOTE TO PHYSICIAN: For severe hydrogen sulfide poisoning, successful treatment has involved initial inhalation of amyl nitrite pearls for 15 to 30 seconds of each minute until 10 mls of a 3% solution of sodium nitrite can be administered intravenously at 2.5 to 5 mls per minute. The nitrite-induced methemoglobin is thought to bind the toxic hydrosulfide ion.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known. Pre-existing skin or respiratory disorders may be aggravated by excessive exposure to this material.

POTENTIAL CARCINOGEN STATUS:

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

Section VII - Precautions for Safe Handling/Use

STORAGE AND HANDLING: Store in a cool, dry place away from children, domestic animals, food and feed products, seed and fertilizer. 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.

PERSONAL PROTECTIONS AND CONTROL MEASURES:

RESPIRATORY PROTECTION (Specify Type): Wear MSHA/NIOSH-approved respirator or mask for protection against pesticides. Use positive pressure self-contained breathing apparatus for emergency or other conditions requiring a higher level of protection.

VENTILATION: LOCAL EXHAUST: Not normally required. **SPECIAL:** Not normally required.

MECHANICAL (General): Not normally required. Use if ventilation is not adequate.

OTHER: Work in well-ventilated area.

PROTECTIVE GLOVES: Rubber or impervious gloves recommended.

EYE PROTECTION: Chemical goggles or shielded safety glasses recommended.

OTHER PROTECTIVE EQUIPMENT: Wear clothing consistent with good practices for handling and applying pesticides. Wear protective clothing, including long pants, long-sleeved shirt, hat and rubber boots during mixing and loading operations and during application. Wash used clothing before reuse.

Section VIII - Environmental and Disposal Information

SPILL OR LEAK PROCEDURES: Contain spill: absorb liquids by covering with clay or other absorbent material; then vacuum or scoop and sweep up wastes and place in container for disposal. Do not use acidic materials to clean up spill area. Wash spill area with detergent solution and rinse with water.

WASTE DISPOSAL METHOD: Material which cannot be used at the site should be disposed of in an approved waste disposal facility following all applicable Federal, State and local regulations. Triple rinse empty containers, wrap with old newspaper and place in trash for disposal in approved sanitary landfill. Do not contaminate water supplies by disposal of wastes or containers.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate water supplies by handling or storage of product, cleaning of equipment or disposal of wastes. Keep work and storage areas clean. Toxic to fish and other aquatic organisms. Read and follow precautionary measures on product label.

Section IX - Other Information

DOT CLASSIFICATION: Not regulated by DOT **DOT LABEL:** None

KEEP OUT OF REACH OF CHILDREN

ABBREVIATION KEY

N/A: NOT AVAILABLE OR APPLICABLE

N/E: NOT ESTABLISHED

TLV: THRESHOLD LIMIT VALUE

TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY

STEL: SHORT TERM EXPOSURE LIMIT

D.O.T.: DEPARTMENT OF TRANSPORTATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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