

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 Root 'n' Grow Root Stimulator

**ID # 411**

Date: October 12, 2012

### 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)
Total Nitrogen				4%
3% Ammoniacal Nitrogen				
1% Nitrate Nitrogen				
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )				10%
Soluble Potash (K <sub>2</sub> O)				3%
(Derived from Ammonium Phosphate and Nitrate of Potash)				

### EMERGENCY OVERVIEW:

**WARNING!** May causes irritation to skin, eyes and respiratory tract. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. In severe cases, blood in the stools or vomit.

### Section III – First Aid Measures

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

**SKIN CONTACT:** Wash thoroughly with soap and water for 15 to 20 minutes. Remove contaminated clothing.

**INHALATION:** Remove to fresh air. Seek medical attention if irritation persists.

**INGESTION:** If swallowed call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** ND

### Section IV – Accidental Release Measures

**SPILL OR LEAK:** Isolate and contain spill. Remove unauthorized persons from spill area. Do not walk through spilled materials. Wear suitable protective gear. Soak up liquid with Atta-Clay, kitty litter or other absorbent material. Dike to prevent spreading. Scrub contaminated surfaces with detergent and water, and collect wash water solution for proper disposal according to label directions. Do not allow liquid to enter streams, sewers or other waters.

### Section V – Firefighting Information

**FLASHPOINT:** Not flammable      **FLAMMABLE LIMITS:** NA

**EXTINGUISHING MEDIA:** Use water spray, carbon dioxide, fine earth, dry chemical or sand. Use agent suitable for surrounding fire. Use water to keep containers cool.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear full protective clothing and self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Contain runoff from bodies of water, rivers, streams and lakes.

### Section VI – Handling & Storage

**HANDLING AND STORAGE:** Keep out of the reach of children. Always practice good hygiene when handling this or any chemical. Wash thoroughly with soap and water any exposed areas. Store in a cool, dry place away from children, domestic animals, food, feed products and water sources. 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.

### Section VII – Personal Protection

**PROTECTIVE GLOVES:** Work gloves or impervious gloves. If prolonged exposure cannot be avoided, wear impervious gloves.

**EYE PROTECTION:** None normally required; follow local work rules. Chemical goggles or shielded safety glasses

recommended for prolonged or repeated exposure.

RESPIRATORY PROTECTION (Specify type): Not normally required. If vapors may exceed acceptable levels, wear MSHA/NIOSH-approved respirator or mask to protect against pesticide dusts, mists and vapors.

VENTILATION:

LOCAL EXHAUST: Not normally required SPECIAL: Not normally required

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

OTHER: Work in a well-ventilated area

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

## Section VIII - Physical/Chemical Ingredients

APPEARANCE AND ODOR: Green liquid. Characteristic mild fertilizer odor.

BOILING POINT: > 212° F

pH: 6-7.5

SPECIFIC GRAVITY: 1.16 (9.74 lbs/gal)

DENSITY: NA

VAPOR PRESSURE: NA

VAPOR DENSITY: NA

SOLUBILITY IN WATER: soluble

EVAPORATION RATE: NA

## Section IX - Reactivity Data

STABILITY: Stable

CONDITIONS TO AVOID: ND

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HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia, cyanic acid

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers, alkaline materials, brominetrifluoride, potassium permanganate, sulfuric acid

## Section X - Toxicology Information

CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: None

NTP: No IARC: No OSHA: No

OTHER EXPOSURE LIMITS: ACGIH TLV (nuisance dusts)=10 mg/m3; OSHA PEL (nuisance dusts)=15 mg/m3

## Section X - Environmental Information

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

## Section XI - Disposal Information

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 and offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill. Do not contaminate water supplies by disposal of wastes or containers. Do not flush in sewers.

## Section XII – Transportation Information

Not listed as a Hazardous Waste under RCRA

## Section XIII – Regulatory Information

NFPA: H-1 F-0 R-0

HMIS: H-1 F-0 R-0

NOTICE: This information is believed to be accurate and reliable. However, no guarantee expressed or implied is made with respect to the information contained herein.

**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

NIA=NO INFORMATION AVAILABLE

ND=NOT DETERMINED

## DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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