

**Material
Safety
Data
Sheet**
Hi-Yield® Root Stimulator
SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name: Voluntary Purchasing Groups, Inc.	Box 460, Bonham, TX 75418
Emergency Telephone: (903) 583-5501 or (800) 424-9300 (Chemtrec)	
For Additional Information Contact: Product Manager or Chemtrec	Date Prepared: 03-14-03
Common Name (Used on Label): Hi-Yield® Root Stimulator	Chemical Family: Not established
Chemical Name: Does not apply	Formula: Not determined
Trade Name & Synonyms: Hi-Yield® Root Stimulator	

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS NUMBER	% (TYPICAL)	TLV (UNITS)	PEL (UNITS)
Surfactant	Not established	Proprietary	Not established	Not established
Ammonium phosphate (monobasic)	Not established	Proprietary	Not established	Not established
Potassium chloride	7447-40-7	Proprietary	Not established	Not established
Urea	57-13-6	Proprietary	Not established	Not established

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration.
TLV: Threshold Limit Value recommended by the American Conference of Governmental Industrial Hygienists.

SECTION 3 - PHYSICAL DATA

BOILING POINT (°F) Not established	SPECIFIC GRAVITY (H ₂ O=1) 1.156	VAPOR PRESSURE (mm Hg) Not established
PERCENT VOLATILE BY VOLUME (%) Not established	VAPOR DENSITY (AIR=1) Not established	EVAPORATION RATE (ethyl ether=1) Not established
SOLUBILITY IN WATER Soluble	REACTIVITY IN WATER Does not apply	
APPEARANCE AND ODOR Deep green, clear liquid; mild odor		

SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT (°F) 62.78 degrees C (surfactant)	FLAMMABLE LIMITS IN AIR (% by volume) Lower: Not established Upper: Not established	
EXTINGUISHING MEDIA Carbon dioxide, water fog, or water deluge	AUTO IGNITION TEMPERATURE Not established	
UNUSUAL FIRE AND EXPLOSION HAZARDS Water may produce slippery surfaces and/or foamy conditions.		
SPECIAL FIRE FIGHTING PROCEDURES Cool fire exposed containers with water.		

SECTION 5 - HEALTH INFORMATION

PRIMARY ROUTES OF EXPOSURE AND TARGET ORGANS Skin, lungs, liver		
SIGNS AND SYMPTOMS OF EXPOSURE		
(1) ACUTE OVEREXPOSURE EYE CONTACT: Severe irritation. SKIN CONTACT: May cause moderate to severe irritation. INHALATION: Excessive exposure may cause respiratory irritation. INGESTION: May cause G.I. irritation, nausea, vomiting, and diarrhea. In severe cases blood in stools or vomitus.		
(2) CHRONIC OVEREXPOSURE None determined		
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE None determined		
CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN None		
NTP <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IARC <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	OSHA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
OTHER EXPOSURE LIMITS ACGIH TLV (nuisance dust)=10mg/m ³ ; OSHA PEL (nuisance dust)=15 mg/m ³		
EMERGENCY AND FIRST AID PROCEDURES EYE CONTACT: Flush with water for 15 minutes. Seek medical attention. SKIN CONTACT: Remove contaminated clothing. Flush with water for several minutes. Seek medical attention immediately. INHALATION: Remove individuals to fresh air. Use artificial respiration if breathing has stopped. Seek medical attention immediately. INGESTION: Seek medical attention immediately.		

SECTION 6 - REACTIVITY DATA

STABILITY <input type="checkbox"/> Unstable <input checked="" type="checkbox"/> Stable	CONDITIONS TO AVOID None determined
INCOMPATIBILITY (Materials to Avoid) Strong oxidizers, alkaline materials, brominotrifluoride, potassium permanganate, sulfuric acid.	
HAZARDOUS DECOMPOSITION PRODUCTS Ammonia, cyanic acid.	
HAZARDOUS POLYMERIZATION <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not occur	CONDITIONS TO AVOID High temperatures.

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED Wear personal protective equipment. Place contaminated material in a labeled container.
WASTE DISPOSAL METHOD Dispose of in accordance with Federal, State, and local regulations.

SECTION 8 - PERSONAL PROTECTION INFORMATION**RESPIRATORY PROTECTION**

Not required under conditions of normal use. Use a NIOSH/MSHA approved respirator if used in a confined space.

VENTILATION

Use in a well-ventilated area.

PROTECTIVE GLOVES

If skin contact is likely to occur

EYE PROTECTION

Safety goggles

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Full protective clothing if needed

SECTION 9 - SPECIAL PRECAUTIONS**PRECAUTIONS TO BE TAKEN IN HANDLING & STORING**

Keep containers closed when not in use. Store separate from oxidizing agents.

OTHER PRECAUTIONS

Do not store in aluminum containers.

SECTION 10 - OTHER INFORMATION

The information contained within was obtained from authoritative sources and is believed to be accurate for the manner in which the product is intended to be used. Other uses could result in ramifications, which are not included within this document.