

**Material  
Safety  
Data  
Sheet**
**Hi-Yield® Horticultural Hydrated Lime**
**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: 6-14-04
Common Name (Used on Label): Hi-Yield® Horticultural Hydrated Lime	Chemical Family: Hydrated Lime
Chemical Name: Calcium hydroxide	Formula: Ca(OH) <sub>2</sub>
Trade Name & Synonyms: Hi-Yield® Horticultural Hydrated Lime	

**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS COMPONENT	CAS NUMBER	% (TYPICAL)	TLV (UNITS)	PEL (UNITS)
Calcium hydroxide	1305-62-0	100	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Calcium oxide	1305-78-8	71.32	2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Silicon dioxide	Not determined	1.00	See Note 1	See Note 1
Carbon dioxide	124-38-9	1.04	5000ppm	10000 PPM
Trace elements	Not determined	2.48	Not determined	Not determined
Chemically combined water	Not determined	24.16	Not established	Not established

(1) TLV/PEL for Silicon dioxide: Amorphous silica=10 mg/m<sup>3</sup>; Cristobalite and Tridymite=0.05 mg/m<sup>3</sup>; Quartz, Tripoli, and Fused Silica=0.1 mg/m<sup>3</sup>

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) Decomposes at 1076 degrees F	SPECIFIC GRAVITY (H <sub>2</sub> O=1) 2.2-2.4	VAPOR PRESSURE (mm Hg) Nil
PERCENT VOLATILE BY VOLUME (%) Non-volatile	VAPOR DENSITY (AIR=1) Does not apply	EVAPORATION RATE (ethyl ether=1) Nil
SOLUBILITY IN WATER Slight (0.18%)	REACTIVITY IN WATER Will not evolve flammable or toxic gases	
APPEARANCE AND ODOR White, off-white; faint musty, earthy odor.		

**SECTION 4 - FIRE AND EXPLOSION DATA**

FLASH POINT (°F) Will not ignite	FLAMMABLE LIMITS IN AIR (% by volume) Lower: Does not apply Upper: Does not apply	
EXTINGUISHING MEDIA Dry chemical, CO <sub>2</sub> , Halon, water spray, or standard form	AUTO IGNITION TEMPERATURE Does not apply	
UNUSUAL FIRE AND EXPLOSION HAZARDS Hydrated lime in itself is not flammable but when in contact with water, it could hydrate further evolving heat, which		

could ignite paper, wood, or rags, which may be in contact with the agent during the hydration process.

**SPECIAL FIRE FIGHTING PROCEDURES**

Do not touch spilled material. Cool containers with flooding amounts of water. Utilize self-contained breathing apparatus with full-face piece operated in pressure demand or other positive pressure mode.

**SECTION 5 - HEALTH INFORMATION****PRIMARY ROUTES OF EXPOSURE AND TARGET ORGANS**

Inhalation, skin and eye contact, ingestion

**SIGNS AND SYMPTOMS OF EXPOSURE****(1) ACUTE OVEREXPOSURE**

Inhalation may cause irritation and ulceration of the respiratory passages. Skin contact may result in irritation with erythema, blistering and possible burns, which may result in brownish stains. Eye contact may result in severe corneal burns and may result in blindness. Ingestion may result in alkaline burns of the mouth, mucous membranes, esophagus and stomach. Symptoms of respiratory discomfort, vomiting, and diarrhea may occur and may lead to weak and rapid pulse, shallow respiration, circulatory collapse and renal failure.

**(2) CHRONIC OVEREXPOSURE**

Inhalation and ingestion may result in inflammatory and ulcerative changes in the mouth, bronchial, and gastrointestinal disturbances. Skin contact may lead to dermatitis. Eye contact may result in conjunctivitis. Repeated or prolonged ingestion may result in metabolic acidosis.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Disorders of the eyes, skin, respiratory and digestive systems.

**CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN**

None

**NTP**

YES  NO

**IARC**

YES  NO

**OSHA**

YES  NO

**OTHER EXPOSURE LIMITS**

None determined

**EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Call a physician. **SKIN OR EYE CONTACT:** Immediately flush eyes with water for at least 15 minutes. Vigorous irrigation dislodges some particles mechanically, but for complete cleansing, it may be necessary to double evert the lids and swab or brush material from the fornices. Special efforts must be made to remove the deposits promptly in order to avoid prolonged exposure to the eye to a continuing source of calcium hydroxide. Call a physician. Flush skin with water. Wash clothing before reuse. **INGESTION:** Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician. Examine victim for possible corrosive injury to mouth and throat.

**SECTION 6 - REACTIVITY DATA****STABILITY**

Unstable  Stable

**CONDITIONS TO AVOID**

Contact with water or acid will evolve heat.

**INCOMPATIBILITY (Materials to Avoid)**

Chlorinated phenols + potassium nitrate, maleic anhydride, nitroethane, nitroparaffins, and phosphorous.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Thermal decomposition will produce calcium oxide or lime.

**HAZARDOUS POLYMERIZATION**

May Occur  Will Not occur

**CONDITIONS TO AVOID**

Does not apply

**SECTION 7 - SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED**

Do not touch spilled material. Utilize personal protective equipment. Vacuum or shovel spilled material into labeled container for disposal or reuse. Keep unnecessary people away. Comply with all applicable governmental regulations concerning spill reporting, handling, and disposal of waste.

**WASTE DISPOSAL METHOD**

Dispose of in accordance with Federal, State, and local regulation.

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

NIOSH/MSHA approved respiratory devices to provide high-efficiency protection against dusts.

**VENTILATION**

General or local exhaust to maintain employee exposure below the TLV/PEL.

**PROTECTIVE GLOVES**

Appropriate gloves to prevent skin contact.

**EYE PROTECTION**

Splash-proof or dust-resistant safety goggles to prevent eye contact with this substance. Contact lenses should not be worn.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT**

When necessary utilize impervious clothing and other equipment to prevent skin contact with this substance.

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

Store in a dry area away from incompatible substances.

**OTHER PRECAUTIONS**

Prolonged contact with hydrated lime in the presence of moisture may cause irritation or burns. Do not allow hydrated lime dust to accumulate on exposed skin or clothing.

**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.