

MATERIAL SAFETY DATA SHEET

GENERAL HYDROPONICS pH INDICATOR

9/15/04

SECTION 1. MATERIAL IDENTIFICATION

Product Name: pH Indicator

Chemical Family: aqueous mixture of chemicals

Product Use: To measure pH of hydroponic growth media

Manufactured by: General Hydroponics, 3789 Vine Hill Road, Sebastopol CA 95472.

(707) 824-9376 Fax: (707) 824-9377

For Chemical Emergency

Spill Leak Fire Exposure or Accident:

Call CHEMTREC Day or Night

DOMESTIC NORTH AMERICA 800-424-9300

INTERNATIONAL, CALL 703-527-3887 (collect calls accepted)

SECTION 2. INGREDIENTS AND OCCUPATIONAL EXPOSURE LIMITS

Ingredients: pH Indicator is a specially formulated mixture of chemicals that are mixed in proportions to indicate the pH of hydroponic growth media. The chemical identity of the compounds and exact proportions used in the mixture are a trade secret. The solution does contain approximately 7.69 % methyl alcohol.

Exposure Limits: No specific limits are established for the mixture of chemicals in PH Indicator.

SECTION 3. HAZARDS IDENTIFICATION

*** Emergency Overview ***

General Hydroponics pH Indicator is a very dark green solution of chemicals mixed in concentrations to determine the pH of hydroponic growth media. Ingredients include 7.69% methyl alcohol. Methyl alcohol is poisonous and may be fatal or cause blindness if swallowed. It is harmful if inhaled or absorbed through the skin. Methyl alcohol can not be made nonpoisonous. Methyl alcohol in this concentration may also cause irritation to the skin, eyes and respiratory tract. Methyl alcohol can also do damage to the central nervous system and liver.

Potential Health Effects

Primary Entry Routes: ingestion, inhalation, and skin contact

Ingestion: Toxic, can intoxicate and cause blindness.

Inhalation: Toxic effects on the nervous system, particularly on the optic nerve.

Eye: May cause redness, pain, and eye lesions.

Skin: May cause irritation. Methyl alcohol is a defatting agent can make skin dry and cracked.

Carcinogenicity: IARC, NTP, and OSHA do not list any ingredients as a carcinogen.

Chronic Exposure: Impairment of vision and skin irritation.

Medical Conditions Aggravated by Long - Term Exposure: persons with pre-existing skin disorders, eye problems, impaired liver or kidney function may be more susceptible to the substance.

Section 4. FIRST AID MEASURES

Ingestion: If swallowed, induce vomiting immediately and contact a physician. Never give anything by mouth to an unconscious person.

Inhalation: Remove exposed person to fresh air and support breathing, if necessary. Give

oxygen. Consult a physician immediately.

Eye Contact: Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush immediately and continuously with flooding amounts of water for at least 15 minutes. Always consult a physician or ophthalmologist if pain or irritation develops.

Skin Contact: Wash exposed area with water for 15 minutes. Remove contaminated clothes and wash all garments before reuse. For reddened or blistered skin, consult a physician.

After First Aid: Get appropriate community medical support.

SECTION 5. FIRE AND EXPLOSION DATA

Flammability Classification: pH Indicator is slightly combustible.

Flash Point: Unknown

Auto-ignition Temperature: Unknown

LEL: Unknown

Burning Rate: Unknown

Extinguishing Media: Use dry chemical, carbon dioxide, water spray, fog, or foam.

Unusual Fire or Explosion Hazards: Container may explode in heat of fire.

Hazardous Combustion Products: Can decompose explosively in a fire.

Special information: Because fire may produce toxic thermal decomposition products, wear self-contained breathing apparatus (SCBA) with a full-face piece.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures: Ventilate the area of a leak or spill. Wear appropriate protective clothing (see section 8). Spills should be wiped up with absorbent materials, or mopped up carefully and held for reclamation or disposal. Do not flush to sewer.

Regulatory Requirements: Avoid infiltration of the undiluted product into drains, surface water, groundwater, and soil.

SECTION 7. HANDLING AND STORAGE

Handling Precautions: Avoid ingestion, skin contact, eye contact, and inhalation

Storage Requirements: Keep in tightly closed containers in a cool, dry, ventilated area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits: For pH indicator no limits are established. For pure methyl alcohol the OSHA exposure limit (PEL) and ACGIH (TLV) is 200ppm(TWA)

Ventilation: Provide general or local exhaust ventilation.

Administrative Controls: Avoid direct contact with the product.

Respiratory Protection: If this product is used as directed, respiratory protection is not required. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/ NIOSH-approved respirator. If respirators are used, OSHA requires a written respiratory protection program that includes, at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Eye Protection: when using pH Indicator, protective eyewear or goggles should be worn per OSHA regulations (29 CFR 1910.134). Contact lenses pose a special hazard. Soft lenses may absorb irritants, and all contact lenses concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.

Protective Clothing: Wear impervious protective clothing when the possibility of skin or clothing contamination may exist. Wear neoprene or rubber gloves when directly handling the product.

Contaminated Equipment: Remove this material from shoes and equipment. Launder contaminated clothing before wearing.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this product, especially before eating drinking, smoking, using the toilet, or applying cosmetics

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Aqueous solution

Density: 0.99

pH: 6.4

Appearance and Odor: dark green with a slight alcohol odor.

Odor Threshold Range: Unknown

Vapor Pressure: Unknown

Water Solubility: Soluble

Boiling Point: 96⁰ c

Melting point: -5⁰ c

Other Solubilities: Unknown

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and handling conditions.

Chemical Incompatibilities: pH Indicator may react with strong oxidizing agents.

Conditions to Avoid: Mixture with incompatible materials, high temperatures

Hazardous Decomposition Products: At extreme temperatures, CO and harmful oxides may be evolved.

SECTION 11. TOXICOLOGICAL INFORMATION

The oral rat LD50 for methyl alcohol is 5628 mg/kg.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Slightly toxic to aquatic life.

Environmental Fate: Rapidly biodegrades in soil and water.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: When possible, save wastes for recycling recovery. Otherwise, wastes should be managed as hazardous waste.

SECTION 14. TRANSPORTATION INFORMATION

Not regulated

SECTION 15. REGULATORY INFORMATION

EPA Regulations: Not listed

SECTION 16. OTHER INFORMATION

pH Indicator is a very dark green solution of chemicals mixed in concentrations to determine the pH of hydroponic growth media.. Information assembled for this Material Safety Data Sheet is for the use of this product as intended by the manufacturer. Users should take all precautions recommended herein while working with this product.

General Hydroponics provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in using this product.