

## GENERAL HYDROPONICS

## FLORABLOOM™

2/3/01

## SECTION 1. MATERIAL IDENTIFICATION

**Product Name:** FloraBloom™ Advanced Nutrient System.

**Chemical Family:** A mixture of plant nutrition minerals in aqueous solution.

**Product Use:** Hydroponic plant nutrient.

**Manufactured by:** General Hydroponics, 3789 Vine Hill Rd. Sebastopol CA 95472  
(707) 824-9376. Fax: (707) 824-9377

## SECTION 2. INGREDIENTS AND OCCUPATIONAL EXPOSURE LIMITS

**Ingredients:** FloraBloom™ Advanced Nutrient System is an especially formulated mixture of chemicals that are mixed in proportions to assure excellent plant nutrition. The chemical identity of the compounds and exact proportions used in the mixture are a trade secret, however, they include: phosphoric acid, potassium phosphate, magnesium phosphate, potassium carbonate, magnesium sulfate, potassium sulfate, and magnesium carbonate.

**Exposure Limits:** Some of the chemicals used in FloraBloom™, when inhaled in a powder form, are known to be irritants to the upper respiratory tract. OSHA has established a PEL for an eight hour time weighted average of 5 mg/m<sup>3</sup> (respirable fraction) or 15 mg/m<sup>3</sup> eight hour time weighted average (total dust). ACGIH has established a 10 mg/m<sup>3</sup> eight-hour time weighted average threshold limit value for exposure to chemicals in this category. As long as these chemicals remain in aqueous solution and do not become aerosolized they are not an inhalation hazard.

## SECTION 3. HAZARDS IDENTIFICATION

## \*\*\* Emergency Overview \*\*\*

General Hydroponics FloraBloom™ is a pink aqueous solution of chemicals mixed in concentrations to assure plant nutrition in hydroponic cultivation. Ingredients in this mixture are considered hazardous when ingested and a hazardous irritant to skin and eyes. Ingestion may result in gastro-intestinal distress, with abdominal pain, lethargy, nausea, vomiting, diarrhea, blood chemistry effects, cardiac effects, and central nervous system effects. If these symptoms develop loosen the victims clothing and seek medical help immediately. After contact with skin wash immediately with plenty of water. For eye contact remove contact lenses and immediately flush eyes with running water for at least 15 minutes. Inhalation can theoretically result in similar symptoms to that of ingestion yet in aqueous solution the risk is very low.

## Potential Health Effects

**Primary Entry Routes:** ingestion, inhalation, and skin contact.

**Target Organs:** Gastrointestinal system, blood system, skin, mucous membranes.

**Ingestion:** Ingestion can result in gastro-intestinal distress, with abdominal pain, lethargy, nausea, vomiting, diarrhea, blood chemistry effects, cardiac effects, and central nervous system effects.

**Eye:** May cause irritation, redness, and pain.

**Skin:** Irritation.

**Inhalation:** Irritation.

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

**Medical Conditions Aggravated by Long-Term Exposure:** Unknown.

**Chronic Effects:** Repeated or prolonged exposure to some ingredients can produce target organ damage.

**Other:** None.

#### SECTION 4. FIRST AID MEASURES

**Ingestion:** Give several glasses of water for dilution and encourage vomiting. If symptoms persist seek medical attention.

**Eye Contact:** Do not allow victim to rub or keep eyes tightly shut. Remove contact lenses then gently lift eyelids and flush immediately and continuously with flooding amounts of water for at least 15 minutes. Consult a physician or ophthalmologist if pain or irritation develops.

**Skin Contact:** Wash exposed area with soap and water. For reddened or blistered skin, consult a physician.

**Inhalation:** Remove exposed person to fresh air and support breathing, if necessary. Consult a physician as soon as possible.

**After First Aid:** Get appropriate community medical support.

#### SECTION 5. FIRE AND EXPLOSION DATA

**Flash Point:** Unknown.

**Auto-Ignition Temperature:** Unknown.

**LEL:** Unknown.

**Flammability Classification:** FloraBloom™ is not combustible.

**Burning Rate:** Unknown.

**Extinguishing Media:** Use dry chemical, carbon dioxide, water spray, fog, or foam for extinguishing surrounding fire.

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

**Hazardous Combustion Products:** Phosphorous oxides may form when heated to decomposition.

**Fire-Fighting Instructions:** Keep fire exposed containers cool with water spray. Remove containers from the fire area, if it can be done safely. Do not release run-off from fire control methods to sewers or waterways.

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

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Spill/Leak Procedures:** Wipe up with absorbent towels or mop.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## SECTION 7. HANDLING AND STORAGE

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

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

**Regulatory Requirements:** Follow applicable OSHA regulations

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Provide general or local exhaust ventilation systems to maintain airborne concentrations as low as possible.

**Administrative Controls:** Avoid breathing mist.

**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 handling FloraBloom™, 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 when the possibility of skin or clothing contamination may exist. Wear neoprene or nitrile gloves when directly handling the product.

**Safety Stations:** Eye wash stations, quick drench showers and washing facilities should be readily accessible to workers handling large quantities of FloraBloom™.

**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:** 1.162.

**pH:** 3.4.

**Appearance and Odor:** Pink liquid with no odor.

**Odor Threshold Range:** Unknown.

**Vapor Pressure:** Unknown.

**Water Solubility:** Soluble.

**Other Solubilities:** Unknown.

**Freezing Point:** 30° F.

**Viscosity:** Unknown.

## SECTION 10. STABILITY AND REACTIVITY

**Stability:** Stable at room temperature in closed containers, under normal storage and handling conditions. Unstable at high temperatures.

**Polymerization:** Hazardous polymerization does not occur.

**Chemical Incompatibilities:** Ethoxy ethyl alcohols, arsenates, phosphates, tartrates, lead, barium, strontium, and calcium.

**Conditions to Avoid:** High temperatures.

**Hazardous Decomposition Products:** Phosphorous oxides may form when heated to decomposition.

## SECTION 11. TOXICOLOGICAL INFORMATION

Most of the chemicals in FloraBloom™ are toxic by ingestion, respiration, or dermal contact.

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** Unknown

**Environmental Fate:** Not expected to be significant.

**Environmental Degradation:** Unknown.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Follow Federal, State, and local regulations.

**SECTION 14. TRANSPORTATION INFORMATION**

**DOT Transportation Data (49 CFR 172.101):** Mixed fertilizer.

**SECTION 15. REGULATORY INFORMATION**

**EPA Regulations:** Not listed.

**SECTION 16. OTHER INFORMATION**

General Hydroponics FloraBloom™ is a plant nutrition product. 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.