



# MATERIAL SAFETY DATA SHEET

## High Output Garden™ MICRO 5.5 – 0 – 1.0

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** High Output Garden™ MICRO

**Application:** Hydroponic plant nutrient.

**Supplier / Manufacturer:** Innovating Plant Products Inc.

4150 Midport Road  
Campbell River, BC  
Canada, V5J 5G5  
Tel: 250-286-8914

### SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

**High Output Garden™ MICRO** is a mixture of nitrates and inorganic minerals in aqueous solution mixed in proportions to promote healthy plant growth in hydroponic systems.

Hazardous Ingredients	CAS number
Ammonium Nitrate	6484-52-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous and require reporting in this section.

### SECTION 3: HAZARDS IDENTIFICATION

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

**CAUTION ! STRONG OXIDIZER. CAN AID COMBUSTION. CAN CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED.**

Ingredients in this mixture can be considered hazardous when ingested and a hazardous irritant to skin and eyes. Ingestion can result in gastro-intestinal distress, with abdominal pain, nausea, vomiting, and watery or bloody diarrhea. Ingestion at higher doses can result in dizziness, headaches, weakness, and shortness of breath. If these symptoms develop, do not induce vomiting, loosen the victim's 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 result in similar symptoms to that of ingestion, but in aqueous solution the risk is very low.

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## Potential Health Effects

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

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

**Ingestion:** Ingestion can cause severe gastro-intestinal distress, with abdominal pain, nausea, vomiting, and watery or bloody diarrhea.

**Eye:** Irritation.

**Skin:** Irritation.

**Inhalation:** Irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

**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:** Induce vomiting with large amounts of water or milk. Loosen tight clothing, such as collar, tie, belt and waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention immediately.

**Skin Contact:** Wash exposed area with soap and water.

**Eye Contact:** Remove contact lenses, and immediately flush eyes with running water for at least 15 minutes. Get medical attention if irritation persists.

## SECTION 5: FIRE FIGHTING MEASURES

**Flash Point:** Unknown.

**Auto-ignition Temperature:** Unknown.

**LEL:** Unknown.

**Flammability Classification:** Not combustible, however some components are powerful oxidizers and can initiate and intensify combustion of flammable materials.

**Burning Rate:** Unknown.

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

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

**Hazardous Combustion Products:** Can decompose explosively in a fire.

**Fire Fighting Instructions:** Contains oxidizing material. In a fire isolate the scene. Do not use water jet. Keep fire exposed containers cool with water spray. Remove containers from the fire area, if it can be done safely. Avoid contact with organic materials. 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.

**Hazardous Thermal Decomposition Products:** Nitrogen oxides, sulfur oxides, phosphorus oxides, metal oxides.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Small Spills:** Wipe with absorbent towel or mop.

**Large spills:** Pump spilled material into containers for reuse or disposal.

Avoid runoff and contact with water bodies, sewers, and drains.

## SECTION 7: HANDLING AND STORAGE

**Handling:** Avoid contact with eyes or skin. Keep containers closed when not in use.

**Storage:** Store in original containers, away from oxidizing materials and acids.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory Protection:** Avoid breathing mist. Process enclosures and local exhaust ventilation may be necessary if large quantities are handled to avoid accumulation of air contaminants associated with this product.

**Skin and Eye Protection:** Safety glasses recommended. If prolonged or repeated skin contact is necessary gloves are recommended. **Wash hands** before eating or drinking.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Aqueous solution.

**Density:** ± 1.25

**pH:** ± 5.8

**Appearance:** Dark brown / amber liquid.

**Odor:** Odorless.

**Water Solubility:** Soluble.

## **SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Unstable at high temperatures. A strong oxidizer reacts violently upon contact with many organic substances.

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

**Chemical Incompatibilities:** Contains chemicals that are strong oxidizing agents that react with strong alkalis to liberate ammonia. They may also react vigorously with reducing materials, powdered metals, oil, and organic solvents.

**Avoid** Mixing with combustible materials, high temperatures, shock, and incompatibles.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Most of the chemicals in **High Output Garden™ MICRO** can be toxic by ingestion, inhalation, or dermal contact.

**Carcinogenicity:** Unknown.

## **SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:** Unknown

**Environmental Degradation:** Unknown.

Do not contaminate water or intertidal areas below mean high water mark. Will promote algae growth which reduces water quality and is detrimental to some species.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

Recycle if possible.

Ensure any waste disposal is in compliance with applicable environmental regulations.

## **SECTION 14: TRANSPORT INFORMATION**

**DOT Transportation Data (49CFR 172.101):** Nitrates, Inorganic aqueous solution. Concentrations of **High Output Garden™ MICRO**, at the minimum temperature encountered during normal transportation will not exceed 80% of the saturation limit. It is exempt from labeling ( see code 58 of 49 CFR 172.102)

**TDG (Canada) Shipping Name:** Not Regulated.

**Hazard Class:** N/A

**DOT (U.S.) Shipping Name:** Not Regulated.

**DOT Hazard Class:** N/A

**DOT Reportable Quantity (RQ):** None.

**Placard:** None.

## **SECTION 15: REGULATORY INFORMATION**

**WHMIS Classification:** Not subject to control under WHMIS.

**SERA :** N/A

## **SECTION 16: ADDITIONAL INFORMATION**

The information contained herein is furnished without warranty of any kind. Users should consider these data only as supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

**Revised: January, 2013**