

# MATERIAL SAFETY DATA SHEET

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718860  
718862


## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT IDENTIFIER</b>		VitaMax Plus		<b>WHMIS CLASSIFICATION</b>		D1B-(ingestion), D2B (eye, skin & respiratory irritant)	
<b>PRODUCT USE</b> Fertilizer							
<b>Manufacturers Name</b>		Greenstar Plant Products Inc.		<b>Suppliers Name</b>		Greenstar Plant Products Inc.	
<b>Street Address</b>		9850-201 <sup>st</sup> Street		<b>Street Address</b>		9850-201 <sup>st</sup> Street	
<b>City</b>	Langley	<b>Province</b>	BC	<b>City</b>	Langley	<b>Province</b>	British Columbia
<b>Postal Code</b>	V1M 4A3	<b>Emergency Telephone</b>	(604) 882-7686	<b>Postal Code</b>	V1M 4A3	<b>Emergency Telephone</b>	(604) 882-7686
<b>Date MSDS Prepared</b>	August 23, 2007	<b>Prepared By</b>	<b>Greenstar Plant Products Inc.</b>		<b>Phone Number</b>	(604) 882-7686	

## SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients ( <i>Specific</i> )	%	CAS	LD <sub>50</sub> of Ingredient ( <i>species and route</i> )	LC <sub>50</sub> of Ingredient ( <i>specify species</i> )
Magnesium Nitrate	<b>1-5</b>	13446-18-9	LD <sub>50</sub> 5440 mg/kg oral rat	NAP
Magnesium Sulphate	<b>1-5</b>	10034-99-8	NAV	NAP
Monopotassium Phosphate (MKP)	<b>10-5</b>	7778-77-0	LD <sub>50</sub> 4640 mg/kg oral rat	NAP
Potassium Nitrate	<b>1-5</b>	7757-79-1	LD <sub>50</sub> 3750 mg/kg oral rat	NAP
Ammonium Nitrate	<b>1-5</b>	6484-52-2	LD <sub>50</sub> 2217 mg/kg oral rat	NAP

## SECTION 3 – HAZARDS IDENTIFICATION

<b>Route of Entry</b>	<input checked="" type="checkbox"/> Skin contact <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion
<b>Emergency Overview</b>	CAUTION! POTENTIAL OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED OR INHALED.
<b>WHMIS Symbols:</b>	
<b>EFFECTS OF ACUTE EXPOSURE TO PRODUCT:</b>	
<b>Eye Contact:</b>	Irritation, redness and pain. Possible burns to eye.
<b>Skin Contact:</b>	Irritation. Symptoms include redness, itching and pain. May result in skin burns.
<b>Inhalation:</b>	Irritation to the respiratory tract. Symptoms include coughing and shortness of breath
<b>Ingestion:</b>	Irritation to the gastrointestinal tract. May cause violent gastroenteritis, anemia, methomolglobinemia, nausea/vomiting, diarrhea, dizziness, abdominal pain, convulsions, collapse, unconsciousness, cardiac effects and central nervous system effects. Nitrates may be reduced to nitrites by bacteria in the digestive tract causing nitrite poisoning.

**EFFECTS OF CHRONIC EXPOSURE:** Repeated or chronic exposure may aggravate medical conditions. May impair target organs especially kidneys and cause anemia.

*VitaMax Plus*

## SECTION 4 – FIRST AID MEASURES

<p>Skin Contact  <b>Immediately flush skin with plenty of water (cold water may be used) for a minimum of 15 minutes. Remove contaminated clothing and shoes. Seek medical attention. Wash clothing before reuse.</b></p>
<p>Eye Contact  <b>Immediately flush eyes with a gentle but large stream of water (cold water may be used) for at least 15 minutes holding both the upper and lower eye lids open. Seek medical attention.</b></p>
<p>Inhalation  <b>Move victim to fresh air. Allow the victim to rest in a well ventilated area. If not breathing, give artificial respiration and seek medical attention immediately. If breathing is difficult, give oxygen. Seek medical attention.</b></p>
<p>Ingestion  <b>Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. If victim is conscious and alert, give 2-4 cupfuls of water or milk to dilute material. If vomiting occurs have victim lean forward with head down to avoid breathing in vomit. Rinse mouth. Obtain medical attention immediately.</b></p>

## SECTION 5 – FIRE FIGHTING MEASURES

Flammable	<b>Non-Flammable</b>	If yes, under what conditions?			
Means of Extinction: <b>Dry chemical, carbon dioxide, water spray, fog or foam.</b>		Special Procedures: <b>Water spray may be used to keep fire exposed containers cool. Water based products should be used to treat surrounding area. Do not allow water runoff to enter sewers or waterways.</b>			
Flashpoint (°C) and method	<b>NAP</b>	Upper Flammable Limit (% by volume)	<b>NAP</b>	Lower Flammable Limit (% by volume)	<b>NAP</b>
Auto ignition Temperature (°C)	<b>NAP</b>	Explosion Data – Sensitivity to Impact	<b>NAP</b>	Explosion Data- Sensitivity to Static Discharge	<b>NAP</b>
Hazardous Combustion Products: <b>NAV</b>					

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<p><b>Leak and Spill Procedures:</b> Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.</p>
<p><b>Small Spill:</b> Use appropriate tools to put the spilled solid in a convenient a closed waste disposal container.</p>
<p><b>Large Spill:</b> Potential oxidizing material. Stop leak if without risk. Avoid contact with a combustible material. Keep substance damp using a water spray. Do no touch spilled material. Prevent entry into sewers, basements, or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.</p>

## SECTION 7 – HANDLING AND STORAGE

<p>Handling Procedures and Equipment</p>
<p><b>Do not handle unless safety precautions have been read and understood. Limit all unnecessary personal contact. Keep in a tightly closed container. Do not handle unless safety precautions have been read and understood. Avoid eye and skin contact. Do not puncture, drag or slide container. Protect against physical damage and moisture.</b></p>
<p>Storage Requirements</p>
<p><b>Store in a cool, dry and ventilated area. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for this product.</b></p>

**SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION**

Exposure Limits	<input checked="" type="checkbox"/> ACGIH TLV	<input checked="" type="checkbox"/> OSHA PEL	<input type="checkbox"/> Other (specify)
Specific Engineering Controls (such as ventilation, enclosed process)			
<b>Ventilation System:</b> A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Avoid splashing.			
<b>Personal Respirators (NIOSH Approved):</b> When engineering controls are not feasible, a respirator (NIOSH approved) may be worn.			
Personal Protective Equipment	<input checked="" type="checkbox"/> Gloves	<input checked="" type="checkbox"/> Respirator	<input checked="" type="checkbox"/> Eye <input checked="" type="checkbox"/> Footwear <input checked="" type="checkbox"/> Clothing <input checked="" type="checkbox"/> Other
<b>Hands:</b> Wear water resistant rubber (latex, butyl or plastic (PVC) gloves. <b>Respirator:</b> Wear a NIOSH approved aerosol and dust filter cartridge to remove residues during product application. <b>Eyes:</b> Wear goggles. <b>Footwear:</b> Wear work boots or rubber boots. <b>Clothing:</b> Wear long sleeves and pants.			

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Physical State <b>Liquid</b>	Odour and Appearance <b>Slight vitamin B1 odour, purple liquid</b>	Odour Threshold (ppm) <b>NAV</b>
Specific Gravity <b>NAV</b>	Vapour Density (air = 1) <b>NAV</b>	Vapour Pressure (mmHg) <b>NAV</b>
Evaporation Rate <b>NAV</b>	Boiling Point (°C) <b>NAV</b>	Freezing Point (°C) <b>NAV</b>
pH <b>NAV</b>	Coefficient of Water/Oil Distribution <b>NAV</b>	[Solubility in Water] <b>NAV</b>

**SECTION 10 – STABILITY AND REACTIVITY**

Chemical Stability <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, under which conditions NAP
Incompatibility with Other Substances <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, which ones? Strong acid & alkali, organic solvents and oxidizing agents
Reactivity, and under what conditions?	NAV
Hazardous Decomposition Products	NAV

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Magnesium Nitrate	<b>LD<sub>50</sub> 5440 mg/kg oral rat</b>
Magnesium Sulphate	<b>NAV</b>
Monopotassium Phosphate (MKP)	<b>LD<sub>50</sub> 4640 mg/kg oral rat</b>
Potassium Nitrate	<b>LD<sub>50</sub> 3750 mg/kg oral rat</b>
Ammonium Nitrate	<b>LD<sub>50</sub> 2217 mg/kg oral rat</b>
Irritancy of Product May cause mild irritation to eyes, skin, digestive tract and respiratory system.	
Skin Sensitization	Respiratory Sensitization
Carcinogenicity - IARC <b>NAV</b>	Carcinogenicity – ACGIH <b>NAV</b>
Reproductive Toxicity <b>NAV</b>	Teratogenicity <b>NAV</b>
Embryotoxicity <b>NAV</b>	Mutagenicity <b>NAV</b>
Name of Synergistic Products/Effects <b>NAV</b>	

VitaMax Plus

## SECTION 12 – ECOLOGICAL INFORMATION

**Potassium Nitrate:** Aquatic Toxicity:

**Fish:** (Lepomis macrochirus) LC<sub>50</sub>= 1839 mg NO<sub>3</sub>/L

**Environmental Fate:** Potassium Nitrate will disassociate into potassium and nitrate ions which may be absorbed by plants. The nitrate ions may be converted to organic nitrogen compounds or nitrogen dioxides and released to the environment.

**Magnesium Nitrate** is a marine pollutant.

**Environmental Fate:** NAV

**Potassium Phosphate:** NAV

**Magnesium Sulphate:** NAV

**Ammonium Nitrate:** When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is not expected to evaporate significantly. When released into water, this material is expected to readily biodegrade.

## SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal

Waste must be disposed of in accordance with federal, provincial and municipal environmental control regulations.

## SECTION 14 – TRANSPORT INFORMATION

Special Shipping Information

Not regulated for transport

TDG

DOT

## SECTION 15 – REGULATORY INFORMATION

WHMIS Classification

**D1B-(ingestion), D2B (eye, skin & respiratory irritant)**

SARA

Not regulated

OSHA

Not Regulated

TSCA

*This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR*

## SECTION 16 – OTHER INFORMATION

As of the date of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable laws. However, no warranty or representation of law or fact, with respect to such information is intended or given.