

Safety Data Sheet

Issue Date: 27-Aug-2021

Revision Date: 21-Jan-2022

Version 2

1. IDENTIFICATION

Product identifier

Product Name Grotek Vitamax Plus™

Other means of identification

SDS # GREEN-014

Recommended use of the chemical and restrictions on use

Recommended Use Plant Fertilizer

Details of the supplier of the safety data sheet

Supplier Address

Greenstar Plant Products, INC.
9430 198th Street
Langley, BC V1M 3C8
Canada
Phone: 604-882-7699
www.getgreenstar.com

Emergency telephone number

Emergency Telephone INFOTRAC INC.
1-800-535-5053 (North America)
1-352-323-3500 (International)
(24/7, 365 days/year)

2. HAZARDS IDENTIFICATION

Appearance Dark orange/amber liquid

Physical state Liquid

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Potassium Nitrate	7757-79-1	1-4
Magnesium nitrate	13446-18-9	1-4
Magnesium Nitrate	10377-60-3	1-3
Ammonium Nitrate	6484-52-2	1-3
Potassium sorbate	24634-61-5	0.1-1
Fe EDTA	15708-41-5	0.1-1
Citric Acid	77-92-9	0.1-1

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms	See Section 11: Toxicological Information of this SDS for more detailed symptoms.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Fe EDTA 15708-41-5	TWA: 1 mg/m ³ Fe	(vacated) TWA: 1 mg/m ³ Fe	TWA: 1 mg/m ³ Fe
Citric Acid 77-92-9	-	15 mg / m ³ (Total)	-

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Not determined
Appearance	Dark orange/amber liquid	Odor Threshold	Not determined
Color	Dark orange/amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.1	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid - Not Applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Relative Density	1.1	25°C (77°F)

Water Solubility	Fully Soluble
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Phosphate 7778-77-0	= 3200 mg/kg (Rat)	-	-
Potassium Nitrate 7757-79-1	= 3015 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Magnesium nitrate 13446-18-9	= 5440 mg/kg (Rat)	-	-
Ammonium Nitrate 6484-52-2	= 2217 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 88.8 mg/L (Rat) 4 h
Thiamine HCl 67-03-8	= 3710 mg/kg (Rat)	-	-
Magnesium Nitrate 10377-60-3	= 5440 mg/kg (Rat)	-	-
Citric Acid 77-92-9	= 3 g/kg (Rat)	> 2000 mg/kg (Rat)	-

Fe EDTA 15708-41-5	= 5 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Potassium sorbate 24634-61-5	= 3200 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Nitrate or nitrite ingested under conditions that result in endogenous nitrosation are considered IARC group 2A carcinogens.

Chemical name	ACGIH	IARC	NTP	OSHA
Potassium Nitrate 7757-79-1		Group 2A		X
Magnesium nitrate 13446-18-9		Group 2A		X
Ammonium Nitrate 6484-52-2		Group 2A		X
Magnesium Nitrate 10377-60-3		Group 2A		X

Legend

IARC (International Agency for Research on Cancer)
 Group 2A - Probably Carcinogenic to Humans
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 10,959.1022 mg/kg
 Dermal LD50 37,120.40 mg/kg
 ATEmix (inhalation-dust/mist) 2,637.00 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Citric Acid 77-92-9		1516: 96 h Lepomis macrochirus mg/L LC50	
Fe EDTA 15708-41-5		100: 96 h Oncorhynchus mykiss mg/L LC50 static	
Potassium sorbate 24634-61-5		1250: 96 h Brachydanio rerio mg/L LC50 static	750: 48 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Ammonium Nitrate 6484-52-2	-3.1
Citric Acid 77-92-9	-1.72

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Potassium Nitrate 7757-79-1	Ignitable Reactive
Magnesium Nitrate 10377-60-3	Ignitable Reactive
Ammonium Nitrate 6484-52-2	Ignitable Reactive

14. TRANSPORT INFORMATION

Note **Transport within user's premises:** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Potassium Phosphate	X	ACTIVE	X	X	X	X	X	X	X
Magnesium Sulfate heptahydrate	X		X		X	X		X	X
Magnesium nitrate			X		X	X		X	X
Potassium Nitrate	X	ACTIVE	X	X	X	X	X	X	X
Magnesium Nitrate	X	ACTIVE	X	X	X	X	X	X	X
Ammonium Nitrate	X	ACTIVE	X	X	X	X	X	X	X
Thiamine HCl	X	ACTIVE	X	X	X	X	X	X	X
Citric Acid	X	ACTIVE	X	X	X	X	X	X	X
Fe EDTA	X	ACTIVE	X	X		X	X	X	X
Potassium sorbate	X	ACTIVE	X	X	X	X	X	X	X

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances**AICS - Australian Inventory of Chemical Substances***US Federal Regulations****CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Magnesium nitrate - 13446-18-9	13446-18-9	1-4	1.0
Potassium Nitrate - 7757-79-1	7757-79-1	1-4	1.0
Magnesium Nitrate - 10377-60-3	10377-60-3	1-3	1.0
Ammonium Nitrate - 6484-52-2	6484-52-2	1-3	1.0

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Magnesium nitrate 13446-18-9	X		
Potassium Nitrate 7757-79-1	X	X	X
Magnesium Nitrate 10377-60-3	X	X	X
Ammonium Nitrate 6484-52-2	X	X	X
Fe EDTA 15708-41-5			X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards Not determined	Flammability Not determined	Physical hazards Not determined	Personal Protection Not determined

Issue Date: 27-Aug-2021
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Revision Note: New emergency telephone numbers.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet