

Safety Data Sheet

Issue Date: 30-Jun-2021

Revision Date: 06-Jan-2022

Version 2

1. IDENTIFICATION

Product identifier

Product Name Grotek Cal-Max™

Other means of identification

SDS # GREEN-011

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 Amber liquid

Physical state Liquid

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Signal Word

Warning

Hazard statements

Causes skin irritation
Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of water and soap
 Take off contaminated clothing and wash before reuse
 If skin irritation occurs: Get medical advice/attention

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Magnesium nitrate (hexahydrate)	13446-18-9	10-30
Nitric acid, ammonium calcium salt	15245-12-2	3-7
Fe EDTA	15708-41-5	1-5
Potassium sorbate	24634-61-5	0.1-1
Nitric acid	7697-37-2	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**

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
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	May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation.
-----------------	---

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

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.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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 Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

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
Nitric acid 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m ³ (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m ³ (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m ³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m ³ STEL: 4 ppm STEL: 10 mg/m ³

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear eye/face protection.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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	Amber liquid	Odor Threshold	Not determined
Color	Amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	5.0-5.5	
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	1.10	
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	May be harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Magnesium nitrate (hexahydrate) 13446-18-9	= 5440 mg/kg (Rat)	-	-
Nitric acid, ammonium calcium salt 15245-12-2	300 - 2000 mg/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)	-	-
Nitric acid 7697-37-2	-	-	= 2500 ppm (Rat) 1 h

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

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Magnesium nitrate (hexahydrate) 13446-18-9		Group 2A		X
Nitric acid, ammonium calcium salt 15245-12-2		Group 2A		X
Nitric acid 7697-37-2		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	3,110.7440 mg/kg
Dermal LD50	16,816.80 mg/kg
Gas	2,100,000.00 mg/L
ATEmix (inhalation-vapor)	270.60 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
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
Nitric acid 7697-37-2	-2.3

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
Nitric acid 7697-37-2	Toxic Corrosive Ignitable

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/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Calcium chloride dihydrate	X				X	X		X	X
Magnesium nitrate (hexahydrate)			X		X	X		X	X
Nitric acid, ammonium calcium salt	X	ACTIVE	X	X			X		
Fe EDTA	X	ACTIVE	X	X		X	X	X	X
Potassium sorbate	X	ACTIVE	X	X	X	X	X	X	X
Nitric acid	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

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Magnesium nitrate (hexahydrate) - 13446-18-9	13446-18-9	10-30	1.0
Nitric acid - 7697-37-2	7697-37-2	0.1-1	1.0

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nitric acid	1000 lb			X

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 (hexahydrate) 13446-18-9	X		
Nitric acid, ammonium calcium salt 15245-12-2	X		
Fe EDTA 15708-41-5			X
Nitric acid 7697-37-2	X	X	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: 30-Jun-2021
Revision Date: 06-Jan-2022
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