

# Safety Data Sheet

Issue Date: 12-Dec-2013

Revision Date: 25-APR-2016

Version 2

## 1. IDENTIFICATION

### Product Identifier

Product Name Alpha Max

### Other means of identification

SDS # FFN: 00716

### Recommended use of the chemical and restrictions on use

Recommended Use Soil Nutrient.

### Details of the supplier of the safety data sheet

#### Supplier Address

Verdesian Life Sciences, U.S., LLC.  
1001 Winstead Drive, Suite 480  
Cary, NC 27513

### Emergency Telephone Number

Company Phone Number Business Phone: (800) 868-6446  
Fax Phone: (919) 535-3652

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

Appearance Light green liquid

Physical State Liquid

Odor Sour odor

### 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.

### Other Hazards

Toxic to aquatic life with long lasting effects

### Unknown Acute Toxicity

1-10% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Please also refer to subsequent sections of this SDS for additional information regarding the components of this product.

Chemical Name	CAS No	Weight-%
Potassium Magnesium Sulfate	14977-37-8	Proprietary
Mono-ammonium Phosphate	7722-76-1	Proprietary
Citric Acid	77-92-9	Proprietary

\*\*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

#### First Aid Measures

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
<b>Ingestion</b>	Drink large quantities of water or milk. Do not induce vomiting. Contact a physician.

#### Most important symptoms and effects

<b>Symptoms</b>	May cause eye, skin and respiratory tract irritation.
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#### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	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

Product is not flammable.

#### 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** Ventilate affected area. Wear protective clothing as described in Section 8 of this safety data sheet.

**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. Soak up and contain spill with an inert (i.e. vermiculite, dry sand or earth) absorbent material.

**Methods for Clean-Up** Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Use personal protection recommended in Section 8. Keep/Store away from clothing/incompatible/combustible materials. Avoid contact with skin, eyes or clothing.

### Conditions for safe storage, including any incompatibilities

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

**Incompatible Materials** Strong caustics. Flammable/combustible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citric Acid 77-92-9	-	15 mg / m3 (Total)	-

### Appropriate engineering controls

**Engineering Controls** Maintain eye wash fountain and quick-drench facilities in work area.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Use safety goggles, safety glasses with side shields and/or a full face shield as described by OSHA's eye and face protection regulations in 29CFR 1910.133.

**Skin and Body Protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Acid-resistant gloves such as rubber or neoprene.

**Respiratory Protection** Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Sour odor
<b>Appearance</b>	Light green liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Light green		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	2.85	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.18	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition 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

Incompatible Materials.

### Incompatible Materials

Strong caustics. Flammable/combustible materials.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been thoroughly investigated
<b>Eye Contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Skin Contact</b>	May cause temporary irritation on skin contact.

**Inhalation** Avoid breathing vapors or mists.

**Ingestion** Ingestion may cause irritation to mucous membranes.

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Mono-ammonium Phosphate 7722-76-1	= 5750 mg/kg ( Rat )	> 7940 mg/kg ( Rabbit )	-
Citric Acid 77-92-9	= 3000 mg/kg ( Rat )	-	-

#### Information on physical, chemical and toxicological effects

**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** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

#### Numerical measures of toxicity

Not determined

**Unknown Acute Toxicity** 1-10% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

#### Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citric Acid 77-92-9		1516: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static		120: 72 h <i>Daphnia magna</i> mg/L EC50

#### Persistence/Degradability

Not determined.

#### Bioaccumulation

Not determined.

#### Mobility

Chemical Name	Partition Coefficient
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.

Chemical Name	California Hazardous Waste Status
Zinc sulfate, monohydrate 7446-19-7	Toxic

### 14. TRANSPORT INFORMATION

#### Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

#### DOT

Not regulated

#### IATA

Not regulated

#### IMDG

##### Marine Pollutant

This material may meet the definition of a marine pollutant

### 15. REGULATORY INFORMATION

#### International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Mono-ammonium Phosphate	Present	X		Present		Present	X	Present	X	X
Citric Acid	Present	X		Present		Present	X	Present	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)
Zinc sulfate, monohydrate 7446-19-7	1000 lbs	1000 lbs	1000 lbs

**SARA 311/312 Hazard Categories**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**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 %
Mono-ammonium Phosphate - 7722-76-1	7722-76-1	Proprietary	1.0
Zinc sulfate, monohydrate - 7446-19-7	7446-19-7	Proprietary	1.0

**CWA (Clean Water Act)**

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc sulfate, monohydrate		X		

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Zinc sulfate, monohydrate - 7446-19-7	X

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc sulfate, monohydrate 7446-19-7	X		X

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	1	0	0	Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	1	0	0	Not determined

**Issue Date:** 12-Dec-2013  
**Revision Date:** 25-Apr-2016  
**Revision Note:** Address Change

**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**