Safety Data Sheet

Issue Date: 10-Jun-2015 Revision Date: 19-Jun-2018 Version 2

1. IDENTIFICATION

Product Identifier

Product Name NutriSphere-NH3®

Other means of identification

SDS # VLS-120, FFN 4010

UN/ID No UN1760

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer.

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: (919) 535-3652

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Amber to light brown liquid Physical state Liquid Odor Characteristic

Classification

Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1

Signal Word

Danger

Hazard statements

Causes severe skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a poison center or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a poison center or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a poison center or doctor/physician IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Chemical Family Carboxylated polymer.

Chemical Name	CAS No.	Weight-%
Maleic-itaconic copolymer, partial calcium salt	877469-38-0	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

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water. Take off contaminated clothing. Wash

contaminated clothing before reuse. If skin irritation persists, call a physician.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is

difficult, give oxygen & get medical attention immediately.

Ingestion Do NOT induce vomiting. Rinse mouth. Call a physician immediately.

Most important symptoms and effects

Symptoms Causes severe skin burns and eye damage. Will cause gastrointestinal tract irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray, dry chemical, carbon dioxide, foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Toxic fumes may be given off when material is exposed to fire.

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. Use water spray to keep fire-exposed containers cool. Do not release runoff from fire control methods to sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal PrecautionsUse 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 Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Use personal protection recommended in Section 8. Avoid contact with skin, eyes or

clothing. Do not breathe vapors or spray mist. Wash face, hands and any exposed skin

thoroughly after handling. Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities

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

Incompatible Materials Strong oxidizing agents. Strong reducing agents. Materials incompatible with water.

Materials incompatible with ammonium salts. Materials incompatible with carboxylates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines No exposure limits noted for ingredient(s). The following information is given as general

guidance

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 chemical safety goggles / face shield.

Skin and Body Protection Chemical resistant protective gloves.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. Use in well-ventilated area.

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

Physical state Liquid

AppearanceAmber to light brown liquidOdorCharacteristicColorAmber to light brownOdor ThresholdNot determined

<u>Property</u> <u>Values</u> <u>Remarks</u> • Method

pH 1.0-2.0

Melting point / freezing point -3.88 °C / 25 °F Boiling Point / Boiling Range Not determined

Flash Point None

Evaporation Rate Not determined Flammability (Solid, Gas) n/a-liquid

Flammability Limit in Air

Upper Flammability Limit Not determined **Lower Flammability Limit** Not determined **Vapor Pressure** Not determined Vapor Density Not determined **Relative Density** 1.1-1.4 Water Solubility Not determined Solubility in other solvents Not determined **Partition Coefficient** Not determined **Autoignition temperature** Not determined

Partition Coefficient
Autoignition temperature
Decomposition Temperature
Kinematic Viscosity
Dynamic Viscosity
Explosive Properties
Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Exposure to excessively high pH may lead to ammonia gas evolution. Can react with metals to give off hydrogen, heat and/or steam. Can react with bases and metal oxides with high evolution of heat and/or steam. Can react with carbonates to give off carbon dioxide, heat and/or steam.

Conditions to Avoid

Incompatible Materials.

Incompatible Materials

Strong oxidizing agents. Strong reducing agents. Materials incompatible with water. Materials incompatible with ammonium salts. Materials incompatible with carboxylates.

Hazardous Decomposition Products

Under fire conditions, may produce gases such as oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation May cause irritation to the mucous membranes and upper respiratory tract.

Ingestion Can cause gastrointestinal disturbance.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene Glycol	= 20 g/kg (Rat)	= 20800 mg/kg (Rabbit)	-
57-55-6			

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

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

 ATEmix (oral)
 35,088.00 mg/kg

 ATEmix (dermal)
 36,491.00 mg/kg

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	Crustacea
Propylene Glycol	19000: 96 h Pseudokirchneriella	710: 96 h Pimephales promelas	1000: 48 h Daphnia magna mg/L
57-55-6	subcapitata mg/L EC50	mg/L LC50 51600: 96 h	EC50 Static 10000: 24 h Daphnia
		Oncorhynchus mykiss mg/L LC50	magna mg/L EC50
		static 51400: 96 h Pimephales	
		promelas mg/L LC50 static 41 - 47:	
		96 h Oncorhynchus mykiss mL/L	
		LC50 static	

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of WastesDisposal 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.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances.

DOT

UN/ID No UN1760

Proper Shipping Name Corrosive Liquid, n.o.s (Maleic-itaconic copolymer, partial calcium salt)

Hazard Class 8
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Propylene Glycol	Х	Х	Х	Х	Χ	Χ	Х	Х
Maleic-itaconic copolymer, partial calcium salt	Х	Х						

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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
Propylene Glycol	X		X
57-55-6			

16. OTHER INFORMATION

NFPAHealth Hazards
Not determinedFlammability
Not determinedInstability
Not determinedSpecial Hazards
Not determinedHMISHealth HazardsFlammabilityPhysical hazardsPersonal Protection
B

Issue Date:10-Jun-2015Revision Date:19-Jun-2018Revision 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
