

Safety Data Sheet

Issue Date: 03-Feb-2016

Revision Date: 22-Feb-2018

Version 2

1. IDENTIFICATION

Product Identifier

Product Name Nutrisphere-N HV

Other means of identification

SDS # VLS-162, FFN 4009

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

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

Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling

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

| 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. Drink 1 or 2 glasses of water. Call a physician immediately. |

Most important symptoms and effects

| | |
|-----------------|---|
| Symptoms | Causes severe skin burns and eye damage. Will cause gastrointestinal tract irritation. May be harmful in contact with skin. |
|-----------------|---|

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.

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 Soak up and contain spill with an 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 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.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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 Refer to 29 CFR 1910.134 for respiratory protection requirements.

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 | Odor | Characteristic |
| Appearance | Not determined | Odor Threshold | Not determined |
| Color | Not determined | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------|-----------------------|-------------------------|
| pH | Not determined | |
| 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 Limit | Not determined | |
| Lower Flammability Limit | Not determined | |
| Vapor Pressure | Not determined | |
| Vapor Density | Not determined | |
| Relative Density | Not determined | |
| Water Solubility | Not determined | |
| 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

Incompatible Materials.

Incompatible Materials

Strong oxidizing agents. Strong reducing agents.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|----------------------------|--|
| Product Information | To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been thoroughly investigated |
| Eye Contact | Causes severe eye damage. |
| Skin Contact | Causes severe skin burns. May be harmful in contact with skin. |
| 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 |
|------------------------|--------------------|-----------------------|-----------------|
| Lactic Acid 79-33-4 | = 3730 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | - |

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) | 5,720.00 mg/kg |
| ATEmix (dermal) | 3,216.00 mg/kg |
| ATEmix (inhalation-dust/mist) | 2.13 mg/L |
| ATEmix (inhalation-vapor) | 2.13 mg/L |

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 |
|------------------------|---|---|--|
| Lactic Acid 79-33-4 | 3.5: 70 h Pseudokirchneriella subcapitata mg/L EC50 | 100 - 180: 96 h Lepomis macrochirus mg/L LC50 static 100 - 180: 96 h Oncorhynchus mykiss mg/L LC50 static 320: 96 h Brachydanio rerio mg/L LC50 semi-static | 180 - 320: 48 h Daphnia magna mg/L EC50 Static 240: 48 h Daphnia magna mg/L EC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

| Chemical Name | Partition Coefficient |
|------------------------|-----------------------|
| Lactic Acid 79-33-4 | -0.62 |

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. |

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 |

IATA

| | |
|-----------------------------|---|
| UN/ID No | UN1760 |
| Proper Shipping Name | Corrosive Liquid, n.o.s (Maleic-itaconic copolymer, partial calcium salt) |
| Hazard Class | 8 |
| Packing Group | III |

IMDG

| | |
|-----------------------------|---|
| 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 |
|--|------|----------|-------------------|---------|-------|---------|-------|------|
| Maleic-itaconic copolymer, partial calcium salt | X | X | | | | | | |
| Lactic Acid | X | X | X | Present | X | Present | X | X |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

| <u>NFPA</u> | Health Hazards | Flammability | Instability | Special Hazards |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| | Not determined | Not determined | Not determined | Not determined |
| <u>HMIS</u> | Health Hazards | Flammability | Physical hazards | Personal Protection |
| | 3 | 0 | 1 | B |

Issue Date: 03-Feb-2016
Revision Date: 22-Feb-2018
Revision Note: New product

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