

# Safety Data Sheet

Issue Date: 26-Dec-2014

Revision Date: 04-Apr-2016

Version 2

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Nutrisphere-N for Granular Nitrogen Fertilizers

### Other means of identification

**SDS #** FFN: 04003

### 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 Phone: (919) 535-3652

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

## 2. HAZARDS IDENTIFICATION

**Appearance** Tan to brown liquid

**Physical State** Liquid

**Odor** Characteristic

### 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 Family** Carboxylated polymer.

| Chemical Name                                   | CAS No      | Weight-%    |
|---|-------------|-------------|
| Maleic-itaconic copolymer, partial calcium salt | 877469-38-0 | Proprietary |
| Propylene Glycol                                | 57-55-6     | 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. If skin irritation persists, call a physician. |
| <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>      | Do not induce vomiting. Rinse mouth. Call a physician immediately.   |

### Most important symptoms and effects

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | May cause eye, skin and respiratory tract irritation. Will cause gastrointestinal tract irritation. |
|-----------------|---|

### Indication of any immediate medical attention and special treatment needed

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to Physician</b> | 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

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Use personal protective equipment as required.        |
| <b>Environmental Precautions</b> | See Section 12 for additional Ecological Information. |

### Methods and material for containment and cleaning up

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

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Wash thoroughly after handling. Use personal protection recommended in Section 8. 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 oxidizing agents. Strong reducing agents. Materials incompatible with water. Materials incompatible with calcium 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.

**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>           | Characteristic |
| <b>Appearance</b>     | Tan to brown liquid | <b>Odor Threshold</b> | Not determined |
| <b>Color</b>          | Tan to brown        |                       |                |

| <u>Property</u>                     | <u>Values</u>    | <u>Remarks • Method</u> |
|-------------------------------------|------------------|-------------------------|
| <b>pH</b>                           | 2.25-2.75        |                         |
| <b>Melting Point/Freezing Point</b> | -3.88 °C / 25 °F |                         |
| <b>Boiling Point/Boiling Range</b>  | Not determined   |                         |
| <b>Flash Point</b>                  | None             |                         |
| <b>Evaporation Rate</b>             | Not determined   |                         |
| <b>Flammability (Solid, Gas)</b>    | n/a-liquid       |                         |
| <b>Upper Flammability Limits</b>    | Not determined   |                         |
| <b>Lower Flammability Limit</b>     | Not determined   |                         |
| <b>Vapor Pressure</b>               | Not determined   |                         |
| <b>Vapor Density</b>                | Not determined   |                         |
| <b>Specific Gravity</b>             | 1.1-1.4          |                         |
| <b>Water Solubility</b>             | Not determined   |                         |
| <b>Solubility in other solvents</b> | Not determined   |                         |

|                                  |                |
|----------------------------------|----------------|
| <b>Partition Coefficient</b>     | Not determined |
| <b>Auto-ignition Temperature</b> | Not determined |
| <b>Decomposition Temperature</b> | Not determined |
| <b>Kinematic Viscosity</b>       | Not determined |
| <b>Dynamic Viscosity</b>         | <50 cP         |
| <b>Explosive Properties</b>      | Not determined |
| <b>Oxidizing Properties</b>      | 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. Materials incompatible with water. Materials incompatible with calcium salts. Materials incompatible with carboxylates.

### Hazardous Decomposition Products

Carbon oxides.

## 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>         | Irritating to eyes.  |
| <b>Skin Contact</b>        | Irritating to skin.  |
| <b>Inhalation</b>          | May cause irritation to the mucous membranes and upper respiratory tract.  |
| <b>Ingestion</b>           | Can cause gastrointestinal disturbance.  |

### Component Information

| Chemical Name               | Oral LD50             | Dermal LD50              | Inhalation LC50 |
|-----------------------------|-----------------------|--------------------------|-----------------|
| Propylene Glycol<br>57-55-6 | = 20000 mg/kg ( Rat ) | = 20800 mg/kg ( Rabbit ) | -               |

### Information on physical, chemical and toxicological effects

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Please see section 4 of this SDS for symptoms. |
|-----------------|--|

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

|                        |   |
|------------------------|---|
| <b>Carcinogenicity</b> | 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

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

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**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**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

**International Inventories**

| Chemical Name                                   | TSCA    | DSL | NDSL | EINECS  | ELINCS | ENCS    | IECSC | KECL    | PICCS | AICS |
|---|---------|-----|------|---------|--------|---------|-------|---------|-------|------|
| Maleic-itaconic copolymer, partial calcium salt | Present |     | X    |         |        |         |       |         |       |      |
| Propylene Glycol                                | 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**

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<br>57-55-6 | 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                       | C                          |

Issue Date: 26-Dec-2014  
 Revision Date: 04-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**