

# Safety Data Sheet

Issue Date: 06-Nov-2019

Revision Date: 11-Nov-2019

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** NovaGreen Complete Micro Package 5-0-0

### Other means of identification

**SDS #** GRPR-016

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

**Recommended Use** Fertilizer and micronutrient product.

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

#### **Supplier Address**

Growth Products Ltd  
21417 County Road 1950 East  
Princeton IL 61356 USA

### Emergency telephone number

**Company Phone Number** (914) 428-1316

**Emergency Telephone** (914) 428-1316

## 2. HAZARDS IDENTIFICATION

**Physical state** Liquid

### Classification

|  |            |
|--|------------|
| Acute toxicity - Oral                              | Category 4 |
| Skin corrosion/irritation                          | Category 2 |
| Serious eye damage/eye irritation                  | Category 2 |
| Specific target organ toxicity (repeated exposure) | Category 2 |

### Signal Word

**Warning**

### Hazard statements

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause damage to organs through prolonged or repeated exposure



### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

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

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Very toxic to aquatic life with long lasting effects

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical name                 | CAS No     | Weight-% |
|-------------------------------|------------|----------|
| Ferrous Sulfate               | 7782-63-0  | 20-30    |
| Urea                          | 57-13-6    | 10-20    |
| Magnesium Sulfate Anhydrous   | 7487-88-9  | 1-5      |
| Copper sulfate                | 7758-98-7  | 1-5      |
| Manganese Sulfate Monohydrate | 10034-96-5 | 1-5      |
| Zinc sulfate heptahydrate     | 7446-20-0  | 1-5      |
| Citric Acid                   | 77-92-9    | 1-5      |

\*\*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**

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention. |
| <b>Skin Contact</b> | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. 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>    | Rinse mouth. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.            |

**Most important symptoms and effects, both acute and delayed**

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Harmful if swallowed. Causes skin and eye 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

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. Soak up and contain spill with an absorbent material.

**Methods for Clean-Up** Reclaim where possible. Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Wear appropriate personal protective equipment. Wash face, hands and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when handling this product.

### 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  |
|---|---|---|---|
| Ferrous Sulfate<br>7782-63-0                | TWA: 1 mg/m <sup>3</sup> Fe   | (vacated) TWA: 1 mg/m <sup>3</sup> Fe                                     | TWA: 1 mg/m <sup>3</sup> Fe   |
| Copper sulfate<br>7758-98-7                 | TWA: 1 mg/m <sup>3</sup> Cu dust and mist   | -   | IDLH: 100 mg/m <sup>3</sup> Cu dust and mist<br>TWA: 1 mg/m <sup>3</sup> Cu dust and mist     |
| Manganese Sulfate Monohydrate<br>10034-96-5 | TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter<br>TWA: 0.1 mg/m <sup>3</sup> Mn inhalable | (vacated) Ceiling: 5 mg/m <sup>3</sup><br>Ceiling: 5 mg/m <sup>3</sup> Mn | IDLH: 500 mg/m <sup>3</sup> Mn<br>TWA: 1 mg/m <sup>3</sup> Mn<br>STEL: 3 mg/m <sup>3</sup> Mn |

|                        |                    |                    |   |
|------------------------|--------------------|--------------------|---|
|                        | particulate matter |                    |   |
| Citric Acid<br>77-92-9 | -                  | 15 mg / m3 (Total) | - |

**Appropriate engineering controls****Engineering Controls**

Apply technical measures to comply with the occupational exposure limits. Maintain eye wash fountain and quick-drench facilities in work area.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection**

Wear eye/face protection. Refer to 29 CFR 1910.133 for eye and face protection regulations.

**Skin and Body Protection**

Wear protective gloves and protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection**

If necessary, wear a MSHA/NIOSH-approved respirator. 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**

|                       |                |                       |                |
|-----------------------|----------------|-----------------------|----------------|
| <b>Physical state</b> | Liquid         | <b>Odor</b>           | Not determined |
| <b>Appearance</b>     | Not determined | <b>Odor Threshold</b> | Not determined |
| <b>Color</b>          | Not determined |                       |                |

| <b><u>Property</u></b>                        | <b><u>Values</u></b> | <b><u>Remarks • Method</u></b> |
|---|----------------------|--------------------------------|
| <b>pH</b>                                     | Not determined       |                                |
| <b>Melting point / freezing point</b>         | Not determined       |                                |
| <b>Boiling point / boiling range</b>          | Not determined       |                                |
| <b>Flash point</b>                            | Not determined       |                                |
| <b>Evaporation Rate</b>                       | Not determined       |                                |
| <b>Flammability (Solid, Gas)</b>              | Not determined       |                                |
| <b>Flammability Limit in Air</b>              |                      |                                |
| <b>Upper flammability or explosive limits</b> | Not determined       |                                |
| <b>Lower flammability or explosive limits</b> | Not determined       |                                |
| <b>Vapor Pressure</b>                         | Not determined       |                                |
| <b>Vapor Density</b>                          | Not determined       |                                |
| <b>Relative Density</b>                       | Not determined       |                                |
| <b>Water Solubility</b>                       | Not determined       |                                |
| <b>Solubility in other solvents</b>           | Not determined       |                                |
| <b>Partition Coefficient</b>                  | Not determined       |                                |
| <b>Autoignition temperature</b>               | Not determined       |                                |
| <b>Decomposition temperature</b>              | Not determined       |                                |
| <b>Kinematic viscosity</b>                    | Not determined       |                                |
| <b>Dynamic Viscosity</b>                      | Not determined       |                                |
| <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

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

|                     |   |
|---------------------|---|
| <b>Eye Contact</b>  | Causes serious eye irritation.  |
| <b>Skin Contact</b> | Causes skin irritation.   |
| <b>Inhalation</b>   | Do not inhale.  |
| <b>Ingestion</b>    | Harmful if swallowed. May cause nausea, vomiting, stomach ache, and diarrhea. |

### Component Information

| Chemical name                          | Oral LD50                             | Dermal LD50             | Inhalation LC50 |
|--|---------------------------------------|-------------------------|-----------------|
| Urea<br>57-13-6                        | = 8471 mg/kg ( Rat )                  | -                       | -               |
| Copper sulfate<br>7758-98-7            | = 300 mg/kg ( Rat )                   | = 1000 mg/kg ( Rabbit ) | -               |
| Zinc sulfate heptahydrate<br>7446-20-0 | = 1260 mg/kg ( Rat )                  | -                       | -               |
| Citric Acid<br>77-92-9                 | = 3000 mg/kg ( Rat ) = 3 g/kg ( Rat ) | > 2000 mg/kg ( Rat )    | -               |

### Symptoms related to the physical, chemical and toxicological characteristics

|                 |  |
|-----------------|--|
| <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. |
| <b>STOT - repeated exposure</b> | May cause damage to organs through prolonged or repeated exposure.  |

**Numerical measures of toxicity**

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

|             |                 |
|-------------|-----------------|
| Oral LD50   | 1,511.80 mg/kg  |
| Dermal LD50 | 18,003.70 mg/kg |

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

**Component Information**

| Chemical name                            | Algae/aquatic plants                         | Fish  | Crustacea   |
|--|--|---|---|
| Urea<br>57-13-6                          |  | 16200 - 18300: 96 h Poecilia reticulata mg/L LC50   | 10000: 24 h Daphnia magna Straus mg/L EC50 3910: 48 h Daphnia magna mg/L EC50 Static  |
| Magnesium Sulfate Anhydrous<br>7487-88-9 | 2700: 72 h Desmodesmus subspicatus mg/L EC50 | 2610 - 3080: 96 h Pimephales promelas mg/L LC50 static 19000: 24 h Lepomis macrochirus mg/L LC50 static | 1700: 24 h Daphnia magna mg/L EC50 266.4 - 417.3: 48 h Daphnia magna mg/L EC50 Static |
| Copper sulfate<br>7758-98-7              |  | 0.1: 96 h Oncorhynchus mykiss mg/L LC50   | 0.0058 - 0.0073: 48 h Daphnia magna mg/L EC50 Static                                  |
| Citric Acid<br>77-92-9                   |  | 1516: 96 h Lepomis macrochirus mg/L LC50  | 120: 72 h Daphnia magna mg/L EC50   |

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

There is no data for this product.

**Mobility**

| Chemical name          | Partition coefficient |
|------------------------|-----------------------|
| Urea<br>57-13-6        | -1.59                 |
| Citric Acid<br>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.

**California Hazardous Waste Status**

| Chemical name                          | California Hazardous Waste Status |
|--|-----------------------------------|
| Copper sulfate<br>7758-98-7            | Toxic                             |
| Zinc sulfate heptahydrate<br>7446-20-0 | 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** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

| Chemical name                 | TSCA | TSCA Inventory Status | DSL/NDSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|-------------------------------|------|-----------------------|----------|---------------|------|-------|------|-------|------|
| Ferrous Sulfate               | X    |                       |          |               | X    | X     |      | X     | X    |
| Urea                          | X    | ACTIVE                | X        | X             | X    | X     | X    | X     | X    |
| Magnesium Sulfate Anhydrous   | X    | ACTIVE                | X        | X             | X    | X     | X    | X     | X    |
| Copper sulfate                | X    | ACTIVE                | X        | X             | X    | X     | X    | X     | X    |
| Manganese Sulfate Monohydrate |      |                       |          |               | X    | X     |      | X     | X    |
| Zinc sulfate heptahydrate     |      |                       | X        |               | X    | X     |      | X     | X    |
| Citric 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**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical name                | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|------------------------------|--------------------------|----------------|---|
| Ferrous Sulfate<br>7782-63-0 | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |
| Copper sulfate<br>7758-98-7  | 10 lb                    |                | RQ 10 lb final RQ<br>RQ 4.54 kg final RQ  |

#### **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 % |
|--|------------|----------|-------------------------------|
| Copper sulfate - 7758-98-7                 | 7758-98-7  | 1-5      | 1.0                           |
| Manganese Sulfate Monohydrate - 10034-96-5 | 10034-96-5 | 1-5      | 1.0                           |
| Zinc sulfate heptahydrate - 7446-20-0      | 7446-20-0  | 1-5      | 1.0                           |

**CWA (Clean Water Act)**

| Chemical name             | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Ferrous Sulfate           |                             |                        |                           | X                          |
| Copper sulfate            | 10 lb                       | X                      |                           | X                          |
| Zinc sulfate heptahydrate |                             | 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 |
|---|------------|---------------|--------------|
| Copper sulfate<br>7758-98-7                 | X          | X             | X            |
| Manganese Sulfate Monohydrate<br>10034-96-5 | X          |               | X            |
| Zinc sulfate heptahydrate<br>7446-20-0      | X          |               | X            |

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical hazards**

Not determined

**Personal Protection**

Not determined

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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