

Safety Data Sheet

Issue Date: 07-May-2020

Revision Date: 12-May-2020

Version 1

1. IDENTIFICATION

Product identifier

Product Name Gro-Pro 12-4-12

Other means of identification

SDS # GRPR-036

Recommended use of the chemical and restrictions on use

Recommended Use Turf use only.

Details of the supplier of the safety data sheet

Supplier Address

Plant Health Intermediate DBA Douglas Plant Health
1550 E Old 210 Hwy
Liberty, MO 64068

Emergency telephone number

Company Phone Number (914) 428-1316
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Physical state Liquid

Classification

This SDS was created using the criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and is compliant with the Globally Harmonized System of Labeling and Classification of Chemicals (GHS).

| | |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 2 |
|-----------------------------------|------------|

Signal Word

Warning

Hazard statements

Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

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

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 Carbonate | 584-08-7 | 10-20 |
| Ammonium Polyphosphate | 68333-79-9 | 1-10 |
| Fe EDTA | 15708-41-5 | 1-5 |
| Manganese EDTA | 15375-84-5 | 1-5 |
| Zinc EDT | 14025-21-9 | <1.0 |

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

| | |
|---------------------|--|
| Eye Contact | 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. |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. |
| Inhalation | Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist. |
| Ingestion | 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

| | |
|-----------------|--|
| Symptoms | Causes serious eye irritation. May cause skin irritation. May be harmful if swallowed. May cause nausea, vomiting, stomach ache, and diarrhea. |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | 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

Product is not flammable or combustible.

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.

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 acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------------|-----------------------------|---|---|
| Fe EDTA 15708-41-5 | TWA: 1 mg/m ³ Fe | (vacated) TWA: 1 mg/m ³ Fe | TWA: 1 mg/m ³ Fe |
| Manganese EDTA 15375-84-5 | - | (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn | IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn |

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

| | | | |
|-----------------------|----------------|-----------------------|----------------|
| Physical state | Liquid | Odor | Not determined |
| 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) | Not determined | |
| Flammability Limit in Air | | |
| Upper flammability or explosive limits | Not determined | |
| Lower flammability or explosive limits | 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
Keep out of reach of children.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|--|
| Eye Contact | Causes serious eye irritation. |
| Skin Contact | Prolonged contact may cause redness and irritation. |
| Inhalation | Do not inhale. |
| Ingestion | May be harmful if swallowed. May cause nausea, vomiting, stomach ache, and diarrhea. |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--------------------------------------|---------------------------------------|----------------------|-------------------------------------|
| Urea 57-13-6 | = 8471 mg/kg (Rat) | - | - |
| Potassium Carbonate 584-08-7 | = 1870 mg/kg (Rat) | - | - |
| Ammonium Polyphosphate 68333-79-9 | > 2000 mg/kg (Rat) | - | - |
| Fe EDTA 15708-41-5 | > 5000 mg/kg (Rat) = 5 g/kg (Rat) | > 5000 mg/kg (Rat) | > 2.05 g/m ³ (Rat) 4 h |
| Zinc EDT 14025-21-9 | = 1750 mg/kg (Rat) | - | - |

Symptoms related to the physical, chemical and toxicological characteristics

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 .

Oral LD50 4,954.20 mg/kg
Dermal LD50 17,335.70 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 |
|--------------------------------------|----------------------|--|--|
| Urea 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 |
| Potassium Carbonate 584-08-7 | | | 630: 48 h Ceriodaphnia dubia mg/L LC50 |
| Ammonium Polyphosphate 68333-79-9 | | 685 - 1066: 96 h Oncorhynchus mykiss mg/L LC50 static 123: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 389 - 654: 96 h Pimephales promelas mg/L LC50 | |

| | | | |
|--------------------------|--|--|--|
| | | static 500: 96 h Brachydanio rerio mg/L LC50 static | |
| Fe EDTA 15708-41-5 | | 100: 96 h Oncorhynchus mykiss mg/L LC50 static | |
| Humic Acid 68514-28-3 | | 128: 96 h Poecilia reticulata mg/L LC50 static | |
| Zinc EDT 14025-21-9 | | 685: 96 h Lepomis macrochirus mg/L LC50 static | |

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

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.

California Hazardous Waste Status

| Chemical name | California Hazardous Waste Status |
|------------------------|-----------------------------------|
| Zinc EDT 14025-21-9 | 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/NDL | EINECS/ELI NCS | ENCS | IECSC | KECL | PICCS | AICS |
|------------------------|------|-----------------------|---------|----------------|------|-------|------|-------|------|
| Urea | X | ACTIVE | X | X | X | X | X | X | X |
| Potassium Carbonate | X | ACTIVE | X | X | X | X | X | X | X |
| Ammonium Polyphosphate | X | ACTIVE | X | X | X | X | X | X | X |
| Magnesium EDTA Salt | X | ACTIVE | X | X | X | X | | X | X |
| Fe EDTA | X | ACTIVE | X | X | | X | X | X | X |
| Humic Acid | X | ACTIVE | X | X | | X | X | | |

| | | | | | | | | | |
|----------------|---|--------|---|---|---|---|--|--|---|
| Manganese EDTA | X | ACTIVE | X | X | X | X | | | X |
| Zinc EDT | X | ACTIVE | X | X | X | 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 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 % |
|-----------------------------|------------|----------|-------------------------------|
| Manganese EDTA - 15375-84-5 | 15375-84-5 | 1-5 | 1.0 |
| Zinc EDT - 14025-21-9 | 14025-21-9 | <1.0 | 1.0 |

CWA (Clean Water Act)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Zinc EDT | | X | | |

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product contains the following substance(s) regulated under applicable state right-to-know regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|------------------------------|------------|---------------|--------------|
| Fe EDTA 15708-41-5 | | | X |
| Manganese EDTA 15375-84-5 | X | | X |
| Zinc EDT 14025-21-9 | 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

Issue Date: 07-May-2020
Revision Date: 12-May-2020
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