

Safety Data Sheet

Issue Date: 06-Nov-2019

Revision Date: 11-Nov-2019

Version 1

1. IDENTIFICATION

Product identifier

Product Name Essential 1-0-1

Other means of identification

SDS # GRPR-017

Recommended use of the chemical and restrictions on use

Recommended Use Turf & Ornamentals

Details of the supplier of the safety data sheet

Supplier Address

Douglas Plant Health - Growth Products LTD
80 Lafayette Ave
White Plains, NY 10603

Emergency telephone number

Company Phone Number (914) 428-1316

Emergency Telephone (914) 428-1316

2. HAZARDS IDENTIFICATION

Physical state Liquid

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 name | CAS No | Weight-% |
|-----------------|------------|----------|
| Humic Acid | 68514-28-3 | 1-10 |
| Ferrous EDTA | 15275-07-7 | 1-5 |
| Phosphoric Acid | 7664-38-2 | <1.0 |
| Sodium benzoate | 532-32-1 | <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

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|-----------------|--|
| Symptoms | May cause skin and eye irritation. 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

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

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| Personal Precautions | Use personal protective equipment as required. |
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Environmental precautions

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|----------------------------------|---|
| Environmental precautions | See Section 12 for additional Ecological Information. |
|----------------------------------|---|

Methods and material for containment and cleaning up

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|--------------------------------|---|
| 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

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|--------------------------------|---|
| 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

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|-------------------------------|--|
| 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 |
|------------------------------|---|---|---|
| Phosphoric Acid 7664-38-2 | STEL: 3 mg/m ³ TWA: 1 mg/m ³ | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ (vacated) STEL: 3 mg/m ³ | IDLH: 1000 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ |

Appropriate engineering controls

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|-----------------------------|--|
| 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

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|---------------------------------------|--|
| 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

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

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|---------------------|---|
| Eye Contact | May cause temporary irritation on eye contact. |
| Skin Contact | Prolonged contact may cause redness and irritation. |
| Inhalation | Do not inhale. |
| Ingestion | May cause nausea, vomiting, stomach ache, and diarrhea. |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------------|----------------------|-------------------------|-------------------------------------|
| Phosphoric Acid 7664-38-2 | = 1530 mg/kg (Rat) | = 2740 mg/kg (Rabbit) | > 850 mg/m ³ (Rat) 1 h |
| Sodium benzoate 532-32-1 | = 4070 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 Values exceed classification criteria.

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 |
|------------------------------|----------------------|--|--------------------------------------|
| Humic Acid 68514-28-3 | | 128: 96 h Poecilia reticulata mg/L LC50 static | |
| Phosphoric Acid 7664-38-2 | | 3 - 3.5: 96 h Gambusia affinis mg/L LC50 | 4.6: 12 h Daphnia magna mg/L EC50 |
| Sodium benzoate 532-32-1 | | 100: 96 h Pimephales promelas mg/L LC50 static 420 - 558: 96 h Pimephales promelas mg/L LC50 flow-through | 650: 48 h Daphnia magna mg/L EC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

| Chemical name | Partition coefficient |
|-----------------------------|-----------------------|
| Sodium benzoate 532-32-1 | -2.13 |

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 |
|------------------------------|-----------------------------------|
| Phosphoric Acid 7664-38-2 | Corrosive |

14. TRANSPORT INFORMATION

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|-------------|---|
| 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 |
|-----------------|------|-----------------------|----------|---------------|------|-------|------|-------|------|
| Humic Acid | X | ACTIVE | X | X | | X | X | | |
| Ferrous EDTA | | | | | X | | | | |
| Phosphoric Acid | X | ACTIVE | X | X | X | X | X | X | X |
| Sodium benzoate | 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) |
|------------------------------|--------------------------|----------------|--|
| Phosphoric Acid 7664-38-2 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |

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)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-----------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Phosphoric Acid | 5000 lb | | | 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 |
|------------------------------|------------|---------------|--------------|
| Phosphoric Acid 7664-38-2 | X | X | X |

16. OTHER INFORMATION**NFPA****Health Hazards****Flammability****Instability****Special Hazards**

Not determined

Not determined

Not determined

Not determined

HMIS**Health Hazards****Flammability****Physical hazards****Personal Protection**

Not determined

Not determined

Not determined

Not determined

Issue Date: 06-Nov-2019**Revision Date:** 11-Nov-2019**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