

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**Product Name: **Emerald Isle Solutions SeaSequential Micronutrients 7-0-1**Recommended use

This product is a concentrated liquid fertilizer for landscape use.

Supplier/ManufacturerLebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
Tel: 800-233-0628
(717-273-0685)Supplier Email: customerservice@lebsea.comEmergency telephone numbers

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION**Signal Word:** Warning**Hazard Statements:**

H290: May be corrosive to metals. (Category 1)

H302: Harmful if swallowed. (Category 4)

H319: Causes serious eye irritation. (Category 2A)

H315: Causes skin irritation. (Category 2)

H335: May cause respiratory irritation if inhaled as a concentrate. (Category 3)

May irritate the digestive tract if ingested.

Keep out of reach of children.

**Pictograms:****Precautionary Statements for handling:** See also Section 7.

P233, P403, P405: Keep container tightly closed, and store locked up in a well-ventilated place..

P234, P406: Keep only in original container, or store in corrosive resistant container with a resistant inner liner.

P261: Avoid breathing /mist/vapors/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301, P310, P330: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

P332, P352: If skin irritation occurs: Wash with plenty of soap and water.

P340: If inhaled and discomfort occurs, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P351, P337: In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses if easy to do and continue rinsing. If eye irritation persists: seek medical attention.

P351, P337: In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses if easy to do and continue rinsing. If eye irritation persists: seek medical attention.

P362: Take off contaminated clothing and wash before reuse.

P390: Absorb spillage to prevent material-damage.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.**Hazards not otherwise classified (HNOC):** Contains oxidizers in water solution. May intensify fire if evaporated to dryness. If clothes are wetted with product, they may become quite flammable and reactive when dry.

Unknown acute toxicity

0% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Seaweed extract aqueous solution	84775-78-0	28.3
Ferrous sulfate	7720-78-7	23
Urea	57-13-6	14
Magnesium nitrate	10377-60-3	10.3
EDTA tetrasodium salt	64-02-8	7.7
Citric acid	77-92-9	3.2
Potassium citrate	6100-05-6	2.8
Magnesium sulfate	10034-99-8	1.6
Manganese sulfate	7785-87-7	1.6
Zinc nitrate	7779-88-6	1.2
Disodium octaborate tetrahydrate	12008-41-2	0.13
Potassium sorbate (preservative)	590-00-1	0.09
Water	7732-18-5	Balance

4. FIRST AID MEASURES

Symptoms: Causes serious eye irritation with burning, redness, tearing. May irritate skin with redness, itching and/or discomfort. May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea. Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse. May interfere with blood's capability to carry oxygen (methemoglobinemia), as evidenced by bluish color to skin and lips.

Eye Contact: 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.

Skin Contact: Wash with soap and water. If injury occurs, or if discomfort or irritation persists contact a physician.

Inhalation If inhaled and discomfort occurs, move to fresh air, and keep person at rest in a position comfortable for breathing. If difficulty in breathing occurs and/or persists, administer oxygen and get medical attention. If medical advice is needed, have product container or label on hand.

Ingestion If swallowed: Rinse mouth. Drink Plenty of water. Call a poison center or doctor if you feel unwell. If discomfort occurs, seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: When spraying, use dust/mist mask or any appropriate personal protective equipment as required.

Most important symptoms and effects, both acute and delayed:

Symptoms: Causes serious eye irritation on contact with burning, redness, tearing. May irritate skin with redness, itching and/or discomfort. May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea. Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse. May interfere with blood's capability to carry oxygen (methemoglobinemia), as evidenced by bluish color to skin and lips. Mist inhalation can result in irritation with nasal discomfort; skin irritation possible, but not likely with normal diluted use.

Indication of any immediate medical attention and special treatment needed: See Symptoms (above).

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, CO₂, ABC Dry Chemical extinguisher, or foam.

Specific hazards arising from the chemical

Contains oxidizers in water solution. Liquid product is not a fire hazard, and will not burn. If evaporated to dryness, the solid residue may pose a fire hazard. Ingredients in this product are a oxidizing agents, which may cause spontaneous ignition of combustible materials. Do not allow nitrates to evaporate to dryness (fire hazard). Potentially corrosive acidic liquid. Avoid prolonged skin contact. Do not store in metal containers.

Explosion data

Sensitivity to mechanical impact: None
Sensitivity to static discharge: None

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and standard protective gear. Contains oxidizers in water solution. May intensify fire only if evaporated to dryness. If clothes are wetted with product, they may become quite flammable and reactive when dry.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use reasonable personal protective equipment as required to prevent contact with eyes or skin, and to avoid breathing mist.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.
Methods for containment	Prevent further leakage or spillage, if safe to do so. Absorb spillage to prevent material damage.
Methods for clean-up	Use reasonable personal protective equipment as required. Absorb spillage to prevent material damage. Soak up excess with inert absorbent material, or take up mechanically, placing in appropriate containers for disposal. Avoid creating mist. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Safe Handling	Keep away from heat. Use personal protective equipment during use as required to prevent contact with eyes or skin, and to avoid breathing mist. Use only outdoors or in a well ventilated area. Wash hands thoroughly after handling.
Storage Conditions	Keep away from heat. Store away from clothing and combustible materials. Take precautions to avoid mixing with combustibles. Store in original container or in a corrosive-resistant container with a resistant inner liner. Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Keep out of the reach of children.
Incompatible materials	Avoid strong alkalis, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH*
Magnesium nitrate (13446-18-9)	None established	None established	None established
Iron salts, soluble, as Fe	1 mg/m ³	None established	None established
Manganese sulfate	0.2 mg/m ³ TWA (Mn)	1 mg/m ³ TWA (Mn fume) 5 mg/m ³ Ceiling (Mn)	500 mg/m ³ (Mn)
Zinc nitrate	None established	None established	None established

*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

Engineering controls: Avoid creating fine, inhalable mists during application.

Individual protection measures

Wear protective gloves, protective clothing, eye protection, and face protection.

Eye protection	Wear Eye and face protection. Safety glasses, or goggles if eye contact with concentrated product is likely.
Skin and Body Protection	Impervious Gloves and normal work coveralls recommended.
Respiratory Protection	Dust/mist mask recommended for misty conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using product, do not eat, drink or smoke. Wash hands thoroughly after handling. Take off all contaminated clothing and wash before re-use. Contains oxidizers in water solution. May intensify fire only if evaporated to dryness. If clothes are wetted with product, they may become quite flammable and reactive when dry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Aqueous Liquid
Appearance	Solution
Color	Mixed, various
Odor	Slight
Odor Threshold	No information available
pH	2.4
Melting point/freezing point	No information available
Boiling point / boiling range	No information available
Flash point	Not applicable
Evaporation rate	No information available
Flammability (solid, gas)	Will not burn
Flammability Limit in Air	
Upper flammability limit:	Aqueous liquid, Will not burn
Lower flammability limit:	Aqueous liquid, Will not burn
Vapor pressure	Similar to water
Vapor density	No information available
Specific Gravity	1.358 g/cc
Water solubility	Fully soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	Will not burn
Decomposition temperature	No information available
Oxidizing properties	Contains an oxidizer in water solution.

10. STABILITY AND REACTIVITY

Reactivity

Contains an oxidizer in water solution. May intensify fire if evaporated to dryness.

Chemical stability

Contains oxidizers in water solution. May become reactive if evaporated to dryness.

Possibility of Hazardous Reactions

May release heat and fumes when mixed in solution with incompatible reactive materials.

Hazardous polymerization: Will not occur.

Conditions to avoid

Avoid evaporating the product to dryness.

Incompatible materials

Strong acids or alkali, or other reactive substances.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions, such as Nitrogen oxides (NOx), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Ingestion, eyes (contact), skin (contact), mist inhalation

Symptoms	Causes serious eye irritation with burning, redness, tearing. May irritate skin with redness, itching and/or discomfort. May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea. Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse. May interfere with blood's capability to carry oxygen (methemoglobinemia), as evidenced by bluish color to skin and lips. Eye irritation on contact with redness, tearing and burning sensation. Mist inhalation can result in irritation with nasal discomfort; skin irritation possible, but not likely with normal use. May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.
Sensitization	Citric acid has been known to cause allergic sensitization in susceptible individuals. (Note that citric acid is often used as an approved food additive and flavoring.)
Mutagenicity	Potassium Sorbate induced chromosome aberrations in cultured Chinese hamster cells. Cytogenetic Analysis (Hamster-Lung) 10 gm/L; Cytogenetic Analysis (Hamster-Fibroblast) 4 gm/L/48 hours; Sister Chromatid Exchange (Hamster Lung) 10 gm/L. (Note that potassium sorbate is often used as an approved food preservative.)
Carcinogenicity	Not classified as carcinogenic.
Reproductive toxicity	No information available
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	Significant and prolonged exposure could result in manganism, a neurological disorder resulting from absorption of excess manganese (unlikely from normal use).
Target Organs	Nervous System, Blood
Aspiration hazard	No information available

12. ECOLOGICAL INFORMATION

Fertilizers may be harmful to aquatic ecosystems with short term effects, causing algal bloom and increased BOD, depending on the amount released.

Acidic liquids can be harmful to aquatic ecosystems with short term effects depending on the amount released.

Persistence and degradability	No information available
Bioaccumulation	No information available
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

This material, as supplied is not a hazardous waste according to federal regulations (40 CFR 261).

Disposal of wastes:

- This product is a non-hazardous waste material suitable for approved solid waste landfills.
- No EPA Waste Numbers are applicable for this product’s components.
- Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

No US Federal special packaging considerations at the date of this document. Follow local regulations.

14. TRANSPORT INFORMATION

DOT Description: Corrosive liquid, acidic, inorganic, n.o.s. (UN 3264)
 Class 8
 Packing Group III

15. REGULATORY INFORMATION

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

SARA 311/312 Hazard Categories

- Acute: Yes
- Chronic: Yes
- Fire: No
- Sudden release of pressure: No
- Reactive: No

B: Component Analysis

Component Related Regulatory Information :

This product may be regulated, have exposure limits or other information identified as the following: Manganese compounds, n.o.s., Manganese compounds, inorganic, Manganese inorganic salts, Water Dissociable Nitrate Compounds.

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4):

Magnesium nitrate (10377-60-3) SARA 313:

- 1 % *de minimis* concentration (Chemical Category N511) (related to Water Dissociable Nitrate Compounds)

Zinc nitrate (7779-88-6)

- 1 % *de minimis* concentration (Chemical Category N511) (related to Water Dissociable Nitrate Compounds)

Manganese Sulfate (7785-87-7)

- 1% *de minimis* concentration (related to Manganese)

CERCLA:

- Ferrous sulfate- RQ = 1000 Lbs
- EDTA: RQ = 5000 Lbs

Clean Air Act: No information is available.

Clean Water Act: No information is available.

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS#	CA	MA	MN	NJ	PA	RI

Manganese sulfate (related to Mn) ¹	7785-87-7	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹
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Other state regulations may apply. Check individual state requirements.

California Proposition 65: No proposition 65 ingredients used.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS#	Minimum Concentration
Manganese sulfate	7785-87-7	1% (related to elemental manganese, Mn)

16. OTHER INFORMATION

Other Information

Disclaimer

The information provided in this material 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 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.