

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**

Product Name: **Emerald Isle Solutions CPR 4-0-1**

Recommended use:

This product is a concentrated liquid fertilizer for landscape use.

Supplier/Manufacturer

Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
Tel: 800-233-0628
(717-273-0685)

Supplier Email: customerservice@lebsea.com

Emergency telephone numbers

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION

Signal Word: Warning

Hazard Statements:

H302: Harmful if swallowed (Category 4)

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

H315: Causes skin irritation with prolonged contact (Category 2)

H317: May cause an allergic skin reaction in sensitive individuals. (Category 1B)



Pictogram: Exclamation Point

Precautionary Statements for handling: See also Section 7.

P261: Avoid breathing spray mist.

P264: Wash hands thoroughly after handling.

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

P272: Contaminated work clothing should not be allowed out of the workplace.

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 or rash occurs: Wash with plenty of soap and water. Seek medical attention if irritation persist.

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 advice/attention.

P362: Take off contaminated clothing and wash before reuse.

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. May irritate the digestive tract if ingested in quantity.

Unknown acute toxicity:

<3% 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	50
Urea	57-13-6	14
EDTA	64-02-8	7.8
Ferrous sulfate	7720-78-7	5.5
Magnesium nitrate	10377-60-3	5
Citric Acid	77-92-9	3.2
Potassium citrate	6100-05-6	2.8
Glucoether surfactant	None established	2.1
Manganese sulfate	7785-87-7	1.6
Magnesium sulfate	10034-99-8	1.6
Zinc Nitrate	7779-88-6	1.2
Disodium octaborate tetrahydrate	12008-41-2	0.13
Potassium sorbate	24634-61-5	0.1
Water	7732-18-5	Balance

4. FIRST AID MEASURES

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	Rinse mouth. Drink Plenty of water. 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: 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.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. Consider nitrate toxicity if ingested in quantity.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Liquid product is not a fire hazard, and will not burn. But it contains oxidizers in aqueous solution, which can promote a fire if dried down. In case of fire, use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, ABC Dry Chemical extinguisher, or foam.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes. Do not allow nitrates to evaporate to dryness May intensify fire if evaporated to dryness. If clothes are wetted with product, they may become quite flammable and reactive when dry.

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.

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. Take off all contaminated clothing and wash before re-use.
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	Absorb spillage to prevent material damage. Use reasonable personal protective equipment as required. 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	Use personal protective equipment during use as required to prevent contact with eyes or skin, and to avoid breathing mist. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Storage Conditions	Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children. Do not allow concentrate to evaporate to dryness.
Incompatible materials	Avoid strong acids or alkali, 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
Glucoether surfactant	None established	None established	None established
Iron salts, soluble, as Fe	1 mg/m ³ (as Fe)	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/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 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. Remove and wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Aqueous Liquid
Appearance	Solution
Color	Mixed, various
Odor	Slight
Odor Threshold	No information available
pH	3.4
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:	Will not burn
Lower flammability limit:	Will not burn
Vapor pressure	Similar to water
Vapor density	No information available
Specific Gravity	1.168
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 oxidizers in aqueous solution, which can promote a fire if dried down.

10. STABILITY AND REACTIVITY

Reactivity

Contains oxidizers in aqueous solution, which can promote combustion or other oxidative reactions if dried down.

Chemical stability: Stable.

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: Do not allow concentrate to evaporate 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 (NO_x), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

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

Symptoms	Eye irritation on contact with redness, tearing and burning sensation. 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.
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.)
Germ cell 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	No ingredients are listed as a carcinogen. However, ingested nitrates that can result in endogenous nitrosation is probably carcinogenic in humans (IARC-Group 2A). Contains EDTA. EDTA is not carcinogenic, but substances similar to EDTA (Nitrilotriacetic acid [NTA] and its salts) were determined to be "possibly carcinogenic to humans" (Group 2B) by IARC, a compound which "may reasonably be anticipated to be a carcinogen" by NTP and a "select carcinogen" by OSHA. EDTA may contain trace amounts of NTA.
Reproductive toxicity	No information available
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	No information available
Target Organ Effects	No information available
Aspiration hazard	No information available

Magnesium nitrate, hexahydrate (13446-18-9) : Oral LD50 Rat: 5440 mg/kg

12. ECOLOGICAL INFORMATION

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

Persistence and degradability	No information available
Bioaccumulation	Not expected to bioaccumulate based on composition.
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: None

This product is not a hazardous material and is not regulated by the United States Department of Transportation (D.O.T).

IMDG: Not a dangerous good.

ICAO/IATA: Not a dangerous good.

15. REGULATORY INFORMATION

General Product Information: This product is not federally regulated as a hazardous material.

SARA 313:

Magnesium nitrate (13446-18-9):

- 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)

SARA 311/312 Hazard Categories

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

CERCLA: Ferrous sulfate: RQ = 1000 Lbs
 EDTA: RQ = 5000 Lbs
 Zinc nitrate: RQ = 1000 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
Magnesium Nitrate (related to Mn) ¹	13446-18-9	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹
Zinc Nitrate	7779-88-6	Yes	Yes	No	Yes	Yes	No
Ferrous sulfate	7720-78-7	Yes	Yes	No	Yes	Yes	No

Other state regulations may apply. Check individual state requirements.

California Proposition 65: May contain trace amounts of a chemical (Nitrilotriacetic acid; NTA) which is known to the State of California to cause cancer.

Component Analysis - WHMIS IDL

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

Component	CAS#	Minimum Concentration
Magnesium Nitrate (related to Mn) ¹	13446-18-9	1% (related to elemental manganese, Mn)

16. 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.