SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Emerald Isle Solutions Fairway 30-0-0 Nitrogen Fertilizer

Recommended use

This product is a concentrated aqueous 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

The hazards addressed in this document deal specifically with the undiluted product.

Signal Word: Warning

Hazard Statements:

H315: Causes skin irritation. (Category 2.)

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

May irritate the digestive tract if ingested.

Precautionary Statements:

P264: Wash hands thoroughly after handling.

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

P332, P352: If skin irritation occurs, wash with plenty of water. Get medical advice if irritation persists.

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

P362: Take off contaminated clothing and wash before reuse.

Wear protective gloves, eye protection, and face protection.

Pictogram:

Precautionary Statements for handling: See also Section 7.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.

<u>Hazards not otherwise classified (HNOC):</u> Contains an oxidizer in water solution. May intensify a fire only if evaporated to dryness. If clothes are wetted with product, they may become quite flammable and reactive when dry.

Unknown acute toxicity: <1% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
UAN Solution (Urea ammonium nitrate in water)	15978-77-5	92.15
Seaweed extract aqueous solution	84775-78-0	7.76
Potassium sorbate (preservative)	590-00-1	0.09

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.

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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.

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

Most important symptoms and effects, both acute and delayed:

Symptoms: Mist inhalation can result in irritation with nasal discomfort; skin irritation possible, but not likely with normal use dilutions. Ingestion of significant amounts of nitrate containing compounds can lead to methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Mist inhalation can result in irritation with nasal discomfort; skin irritation possible, but not likely with normal use dilutions.

Eye irritant. Contact may cause stinging, watering and redness; swelling and eye damage.

Pre-existing heart or blood diseases may be aggravated by exposure to nitrates. Pre-existing respiratory or skin disorders may be aggravated by exposure to this material.

<u>Indication of any immediate medical attention and special treatment needed</u>: Treat 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.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Liquid product is not a fire hazard, and will not burn. 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 nitrates in solution. Do not allow concentrated product to evaporate to dryness, as nitrates pose a fire hazard. If clothes are wetted with product, they may become quite flammable and reactive when dry.

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes.

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. 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

skin, and to avoid breathing mist. Goggles or face shield recommended.

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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

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information.

Methods for containment Prevent further leakage or spillage, if safe to do so.

absorbent material, or take up mechanically, placing in appropriate containers for

disposal. Avoid creating mist. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

to avoid breathing mist. Wash hands thoroughly after handling.

Storage Conditions Keep containers tightly closed in a cool, well- ventilated place. Keep out of the reach of children.

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*
Ammonia (in solution)	25 PPM	50 PPM	300 PPM
UAN Solution (Urea ammonium nitrate)	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 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 Liquid
Appearance Solution
Color Mixed, various

Odor Slight

Odor Threshold No information available

pH 6.9 to 7.4

Melting point/freezing point

No information available

No information available

Flash point Not applicable

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Evaporation rate No information available

Flammability (solid, gas)

Flammability Limit in Air

Will not burn

Upper flammability limit: Will not burn
Lower flammability limit: Will not burn
Vapor pressure Similar to water

Vapor density No information available

Specific Gravity 1.3 g/cc

Water solubility
Solubility in other solvents
Partition coefficient
Autoignition temperature
Fully soluble in water
No information available
Aqueous solution; will not burn

Decomposition temperature
No information available

Oxidizing properties Contains an oxidizer in aqueous solution. Will react as an oxidizer if allowed to

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evaporate to dryness.

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable.

Possibility of Hazardous Reactions

May release heat and fumes, particularly ammonia, when mixed in solution with incompatible reactive materials such as alkaline ingredients.

Hazardous polymerization

Will not occur.

Conditions to avoid

None known

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 May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea. Ingestion of significant amounts of nitrate containing compounds can lead to methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Mist inhalation can result in irritation with nasal discomfort; skin irritation possible, but not likely with normal use dilutions. Pre-existing heart or blood diseases may be aggravated by exposure to nitrates. Pre-existing respiratory or skin disorders may be aggravated by exposure to this material.

<u>Indication of any immediate medical attention and special treatment needed</u>: Treat 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.

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Sensitization Not a sensitizer.

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, however, that*

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potassium sorbate is often used as an approved food preservative.

Carcinogenicity This product is not carcinogenic. However, ingested nitrate that results in endogenous nitrosation

is probably carcinogenic to humans (IARC Group 2A)

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Chronic toxicity
Target Organ Effects
Aspiration hazard
No information available
No information available
No information available
No information available

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
Bioaccumulation
Other adverse effects
No information available
No information available

13. DISPOSAL CONSIDERATIONS

UAN is not considered a hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Consult local and state environmental regulatory agencies for acceptable alternative disposal procedures and locations. Follow standard disposal procedures. (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: Liquid Fertilizer N.O.S.

UAN is not listed as a hazardous material by the U.S. Department of Transportation (DOT), Transport Canada (TC) and the United Nations (UN).

IMDG: Not a dangerous good. ICAO/IATA: Not a dangerous good.

U.S. Coast Guard: Designated as a hazardous material under 46 CFR 153.40 (e) that is subject to U.S. Coast Guard regulations at 33 CFR 154 and 33 CFR 156 when transferred in bulk to or from a marine vessel with a total storage capacity of 250 or more barrels.

15. REGULATORY INFORMATION

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General Product Information: This material is considered to be hazardous as defined by the OSHA Hazard

Communication Standard.

Clean Air Act: No information is available.
Clean Water Act: No information is available.

SARA TITLE III (Superfund Amendment and Reauthorization Act of 1986): This product contains the following toxic chemicals subject to the reporting requirements of Section 302 and/or Section 313 of the Emergency Planning and Community Right-to- Know Act of 1986 and of 40 CFR 372:

Chemical Name	CAS No.	% in Product	302 Threshold Planning Quantity (Lbs)	313 <i>De minimus</i> Concentration (%)	
Ammonium nitrate	6484-52-2	33 - 43	Not listed	1.0	
Nitrate compounds as nitrate ¹	-	25 - 35	Not Listed	NA	
Ammonia from ammonium	7664-41-7	0.6 - 1	500	1.0	

¹A nitrate compound is covered by TRI regulations only when in water and only if dissociated. The complete weight of the nitrate compound is used for threshold determinations. Only the nitrate portion is used for release calculations.

SARA 311/312 Hazard Categories

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

Component Analysis – State substances lists:

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

Component	CAS#	CA	MA	MN	NJ	PA	RI
Ammonium nitrate	6484-52-2	Yes	Yes	Yes	Yes	Yes	Yes

Other state regulations may apply. Check individual state requirements.

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.