

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

Product Name: **Roots Turf Vigor 9-3-6**

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
(717-273-1685)

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)
H320: May cause eye irritation on contact. (Category 2B)
H315: Causes skin irritation with prolonged contact. (Category 2)
May irritate the digestive tract if ingested.

Pictogram: Exclamation point



Precautionary Statements:

P270: Do not eat, drink or smoke when using this product.
P301, P310, P330: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.
P332, 352: If skin irritation occurs: Wash with soap and water. Seek medical attention if irritation persists.
P362: Take off contaminated clothing and wash before reuse.
P352, P264: Wash hands and exposed skin thoroughly after handling with plenty of soap and water..
P305, P351, P337: 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.
Keep out of reach of children.

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

Hazards not otherwise classified (HNOC): The bacteria contained in this product are strains of typically harmless soil and water bacteria, and are not associated with disease or infections under normal circumstances (Biosafety Level 1). However, reasonable precautions are in order. Handle as you would rich, dark soil or compost: keep it out of your mouth, eyes, lungs, and broken skin. Wash hands thoroughly after use. Remove and launder heavily soiled clothing separately before reuse. Persons with severely suppressed immune systems, such as those with advanced AIDS, or those taking anti-rejection drugs, or those undergoing chemotherapy should contact their physician before handling ordinary microbial products.

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

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Urea	57-13-6	20- 25
Potassium thiosulfate	10294-66-3	10 - 15
Monopotassium phosphate	07778-77-0	5 - 10
Ferric sodium Ethylenediamine tetraacetic acid (Iron EDTA)	15708-41-5	3 - 5
Manganese Ethylenediamine tetraacetic acid (Manganese EDTA)	15735-84-5	0.4
Zinc Ethylenediamine tetraacetic acid (Zinc EDTA)	14025-21-9	0.4
Potassium chloride	7447-40-7	0.2
Bacteria Cultures	68038-70-0	<0.1
Water	7732-18-5	40 - 45
Various Nonhazardous ingredients	Various	Balance
Various ingredients <0.1%	Various	

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: 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.

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

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.

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.
Methods for clean-up	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. Do not eat, drink or smoke when using this product. 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
Iron salts, soluble, as Fe	1 mg/m ³ TWA	None established	None established
Aerosol mist, nontoxic	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWA 10 mg/m ³ STEL

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

Individual protection measures

Eye protection	Safety glasses, or goggles if eye contact with concentrated product or diluted mist 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. Wash contaminated clothing before reuse.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Aqueous Liquid
Appearance	Solution
Color	Mixed, various
Odor	Slight
Odor Threshold	No information available
pH	6.5-7.5
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	1.19 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	Not an oxidizer

10. STABILITY AND REACTIVITY

Reactivity

Not particularly reactive

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

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.

Sensitization No information available.

Germ cell mutagenicity No information available

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by /ARC, NTP, ACGIH or OSHA. However, 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

The bacteria in this product are not associated with disease or infection in normal healthy individuals. (Biosafety Level 1). However, normal hygiene practices are in appropriate.

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	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: Liquid fertilizer, N.O.S

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

SARA 313 Superfund Amendments: This product contains no chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal regulations, Part 372.

SARA 311/312 Hazard Categories

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

CERCLA:

EDTA: RQ = 5000 Lbs

There may be specific reporting requirements at the local, regional, or state level.

State Regulations – General:	This product is not regulated by any State as a hazardous material.
Component Analysis – State	None of this product’s significant components (>0.1%) are on the state lists from CA, FL, MA, MN, NJ, or PA.
Component Analysis – WHMIS IDL	No significant components (>0.1%) are listed in the WHMIS IDL.

California Proposition 65: This product contains EDTA. A related product, Trisodium NTA, is known to the state of California to cause cancer. EDTA may contain trace amounts of NTA.

16. OTHER INFORMATION

The bacteria in this product are not associated with disease or infection in normal healthy individuals. (Biosafety Level 1). However, normal hygiene practices are in appropriate.

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.