

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

Product Name: **Roots 1-2-3 Premix Plus**

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:

H319: Causes serious eye irritation (Category 2A)

H303: May be harmful if swallowed.

H335: Mist inhalation of undiluted product may cause upper respiratory tract irritation of nose and throat. (Category 3)

H341: Suspected of causing genetic defects (Category 2)

May irritate the digestive tract if ingested.

Keep out of reach of children.

Pictograms:



Precautionary Statements for handling: See Section 7.

P264: Wash Hands thoroughly after handling.

P280, P281: Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

P351, P337: If in eyes, rinse cautiously with water for several minutes. If eye irritation persists: seek medical attention.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P308, P312: If exposed or concerned, seek medical advice. Call a POISON CENTER or doctor/physician if you feel unwell.

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

P261: Avoid breathing /mist/vapors/spray.

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

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

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

Hazards not otherwise classified (HNOC): None

Unknown acute toxicity

<2% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
EDTA tetrasodium Salt	64-02-8	2.5
Potassium sorbate	24634-61-5	0.2%
Tergitol surfactant	127087-87-0	2%
Alcohol Ethoxylate surfactant	66455-15-0	2%
Alkoxylated Alcohols, C8-18 surfactant	69013-18-9	2%
Bromopol preservative	52-51-7	0.02%
1,2-Benzisothiazolin-3-one preservative	2634-33-5	0.05%
Nonhazardous fertilizer ingredients and fillers	Various	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.

Symptoms: Serious eye irritation on contact with pain, redness, and tearing. 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: If exposed or concerned, get medical advice or attention. Treat Symptoms. Watch for serious eye irritation on contact.

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	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Use only outdoors or in a well ventilated area.
Storage Conditions	Store locked up. 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 REL
Aerosol mist, nontoxic*	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWA 10 mg/m ³ STEL

*Exposure to solutions having a mutagenic potential should be minimized. Lower exposure criteria are recommended.

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

Individual protection measures

Wear protective gloves, eye protection, and face protection.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Aqueous Liquid
Appearance	Solution
Color	dark
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	1.174 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	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

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: Potassium Sorbate induced chromosome aberrations in cultured Chinese hamster cells, and human peripheral blood lymphocytes. Note that potassium sorbate is an approved food additive.

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by IARC, 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: Potassium Sorbate induced chromosome aberrations in cultured Chinese hamster cells, and human peripheral blood lymphocytes.

STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	See mutagenicity, carcinogenicity, and reproductive toxicity above.
Target Organs	Lungs, Respiratory system irritation; Kidney, liver.
Aspiration hazard	No information available

If exposed or concerned, get medical advice or attention.

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.

State Regulations – General: This product is not regulated by any State as a hazardous material.

Component Analysis – State None of this product’s components are on the state lists from CA, FL, MA, MN, NJ, or PA.
Component Analysis – WHMIS IDL No components are listed in the WHMIS IDL.

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.