

**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, CO<sub>2</sub>, 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 <sup>3</sup> TWA | 5 mg/m <sup>3</sup> TWA | 5 mg/m <sup>3</sup> TWA<br>10 mg/m <sup>3</sup> 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).

|                   |                       |
|-------------------|-----------------------|
| <b>IMDG:</b>      | Not a dangerous good. |
| <b>ICAO/IATA:</b> | Not a dangerous good. |

**15. REGULATORY INFORMATION**

|                                     |  |
|-------------------------------------|--|
| <b>General Product Information:</b> | This product is not federally regulated as a hazardous material. |
| <b>Clean Air Act:</b>               | No information is available.                                     |
| <b>Clean Water Act:</b>             | 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.