



Revision Date: 06/25/2015

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**Product Name: **Roots Healthy Turf 8-1-9**

Product Identity: Mixed granular fertilizer.

Recommended use: This product is a mixed granular fertilizer for landscape use.Supplier/Manufacturer**Lebanon Seaboard Corporation****1600 East Cumberland Street****Lebanon PA 17042**

800-233-0628

(717-273-1685)

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

**2. HAZARDS IDENTIFICATION**

	Hazard Statement	Category
H272	May intensify fire; oxidizer	3
H315	Causes skin irritation with prolonged contact	2
H335	A single exposure may cause respiratory irritation	-
H319	Causes serious eye irritation	2A
H302	Harmful if swallowed	4



Signal Word: Warning

**Precautionary Statements for handling:** See also Section 7.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P220: Keep/Store away from clothing and combustible materials.

P221: Take any precaution to avoid mixing with combustibles.

P264: Wash hands and exposed skin thoroughly after handling.

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

P305, P351, P337: If in eyes, rinse cautiously with water for several minutes. If eye irritation persists: seek medical attention.

P378: Use water, foam, CO<sub>2</sub>, or dry powder for extinction.

P301, P310, P330: IF SWALLOWED: Rinse mouth; immediately call a POISON CENTER or doctor/physician.

Keep out of reach of children.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations. See Section 13.

**Hazards not otherwise classified (HNOC):** The microbes contained in this product are strains of safe, typically harmless soil and water microbes, 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: &lt;1% of the mixture consists of ingredients of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight %
Potassium Nitrate	7757-79-1	10 - 15%
Rhizosphere Bacteria	68038-70-0	400,000 cfu/g
Nonhazardous fertilizers and fillers	Various	Balance

#### 4. FIRST AID MEASURES

Eye Contact	Rinse eyes cautiously with water for several minutes. Remove any contact lenses if easy to do, and continue rinsing. If discomfort or irritation persists contact a physician.
Skin Contact	Wash with soap and water. If injury occurs, or if discomfort or irritation persists or rash occurs, 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 you feel unwell, call a poison control center or seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: Use any appropriate personal protective equipment as required for nuisance dusts.

Most important symptoms and effects, both acute and delayed: Nuisance dust irritation may occur with nasal discomfort under highly dusty conditions.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. Consult physician if discomfort or irritation persists. Get medical advice or attention if you feel unwell.

#### 5. FIRE FIGHTING MEASURES

Contains and oxidizer. Contact with combustible material will not cause spontaneous ignition. However, substance will enhance an existing fire (Class 1 oxidizer according to NFPA). Keep away from heat, sparks, and open flames. Minimize dust generation. No smoking.

##### Suitable extinguishing media

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. Avoid stirring up dust extinguisher stream.

##### 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

Note: Excessive amounts of any burnable dusts can produce explosive mixtures if allowed to disperse in the air in confined areas where ignition sources occur. Prevent excessive dust dispersal in areas of use, storage, or production.

##### 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 (bunker) gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use dust mask and gloves as needed or other reasonable personal protective equipment as required to prevent contact with eyes or skin. Remove ignition sources prior to clean-up.
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 dust mask and/or reasonable personal protective equipment as required to avoid breathing dusts. Moisten or cover powder spill with plastic sheet or tarp to minimize spreading. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Soak up excess with inert absorbent material. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE**

**Safe Handling:** Contains and oxidizer. May intensify Fire. Keep away from heat, sparks, and open flames. No smoking. Read and understand all safety precautions before handling. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required to avoid breathing product dusts or mists, and to prevent eye contact. 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*
Nuisance Dusts	15 mg/m <sup>3</sup> (TWA- inhalable)	15 mg/m <sup>3</sup> (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	Not Established

\*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

**Other Information:**

**Engineering controls:** Use with adequate ventilation and follow safe work practices to prevent dust buildup in air.

**Individual protection measures**

**Eye protection** Safety glasses, or goggles if eye contact is likely

**Skin and Body Protection** Gloves and standard work coveralls recommended.

**Respiratory Protection** Dust mask recommended for dusty or 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 Solid  
 Appearance Granules  
 Color Mixed, various  
 Odor Slight  
 Odor Threshold No information available  
 pH Not applicable

Melting point/freezing point	Not applicable
Boiling point / boiling range	Not applicable
Flash point	No information available
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Not applicable
Vapor density	Not applicable
Specific Gravity	Not applicable
Water solubility	Mostly Insoluble in water, although some ingredients may dissolve.
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Oxidizing properties	No information available

## 10. STABILITY AND REACTIVITY

### **Reactivity**

Oxidizer. Do not mix with organic chemicals.

### **Chemical stability**

Stable.

### **Possibility of Hazardous Reactions**

May release heat and fumes, or ignite when mixed in solution with incompatible reactive materials.

### **Hazardous polymerization**

Will not occur.

### **Conditions to avoid**

High heat, sparks and open flames.

### **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<sub>x</sub>), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

## 11. TOXICOLOGICAL INFORMATION

Death and severe effects of nitrate ingestion are generally associated with doses above 10 g NO<sub>3</sub>. Doses between 2 and 9 g NO<sub>3</sub> have been reported to cause methemoglobinemia. These values correspond to 33 to 150 mg NO<sub>3</sub>/kg.

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

**Symptoms**      Causes eye irritation. 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	Not a skin sensitizer.
Germ cell mutagenicity	Non mutagenic according to in vitro bacterial tests.
Carcinogenicity	Not listed as carcinogenic.
Reproductive toxicity	No adverse effects observed on reproductive or developmental toxicity
STOT - single exposure	No information available
STOT - repeated exposure	No information available

Chronic toxicity	Lungs- as nuisance dust, and potential respiratory irritant.
Target Organ Effects	Kidney, blood, digestive tract.
Aspiration hazard	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	Not expected to persist based on composition
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**

If in large packaging quantities:

DOT/ IMDG/ IATA:	UN 1486
Proper Shipping Name:	Oxidizer
Hazard Class:	5.1
Packing Group	III

**15. REGULATORY INFORMATION**

TSCA (USA):      Complies

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

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

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

TSCA 8(b) inventory: Potassium nitrate

SARA 302/304/311/312 hazardous chemicals: Potassium nitrate

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium nitrate: Fire hazard, Delayed (chronic) health hazard

**CERCLA: Potassium nitrate (7757-79-1) SARA 313:**

- 1 % *de minimis* concentration (Chemical Category N511) (related to Water Dissociable Nitrate Compounds)

There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material .

SARA Title III, Section 311/312 Hazard Classes

Acute Health Hazard	Yes
Chronic Health Hazard	Yes

Fire Hazard	Yes (Oxidizer)
Release of Pressure	No
Reactive hazard	Oxidizer

SARA 313 Toxic Chemicals

N511 Nitrate compounds (water dissociable: only reportable when in aqueous solution)

SARA 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous substances. Not Listed)

**State Regulations**

**California Proposition 65:** This product does not contain any Proposition 65 chemicals unless stated here: None

**Right-to-Know:** Potassium nitrate on the state Right-to-Know list for MA, NJ and PA.

**International Inventories**

**Component Analysis – WHMIS IDL** No components are listed in the WHMIS IDL.

<b>16. OTHER INFORMATION</b>
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**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.