



## Safety Data Sheet

Latest Revision: 12 May 2015

### *Section 1 – Identification of the Substance/Preparation and Company*

**Produce Name: Roots Healthy Start Tablets 12-8-8**

Chemical Identity: Fertilizer and soil inoculant mixture in tablet form

**Lebanon Seaboard Corporation**

**1600 E. Cumberland Street**

**Lebanon, PA 17042 USA**

Tel: 800-233-0628

(717-273-1685)

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

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### *Section 2 – Hazards Identification*

No reportable quantities of hazardous ingredients are present.

No toxic chemicals are present subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

**OSHA Signal Word:** Warning

**Symbol (Pictogram):**



**Hazard Statements:**

H351: Suspected of causing cancer by prolonged and repeated inhalation of silica (sand) dust. (Category 2)

Dust may be mildly irritating.

Keep out of reach of children.

**Precautionary Statements:**

P201: Obtain special instructions before use.

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

P261: Avoid breathing dust.

P281: Use personal protective equipment as required if dusty conditions exist.

P308: If exposed or concerned, seek medical advice.

P405: Store locked up, if dust hazard exists.

P501: Dispose in accordance with state and local regulations.

### *Section 3 – Composition/Information on Ingredients*

Product is a blend of natural and conventional fertilizers and minerals with beneficial bacteria in spore form. Bacteria in this product are naturally-occurring, and have not been genetically modified. (Biosafety Level 1, **Non-GMO**).

Appearance: Gray-black circular tablets. Mild odor.



## Roots Healthy Start Tablets

12 May 2015

<u>Component listing</u>	<u>%</u>	<u>CAS#</u>
<b>Humate</b> (Leonardite, naturally occurring mineral)	12%	68514-28-3
naturally contains some <b>crystalline silica</b> ‡	0.1-0.3%	14808-60-7
Ureaform	*	9011-05-6
Ammoniated Phosphates	*	7722-76-1
Sulfate of Potash,	*	7778-80-5
Sulfate of Potash magnesia	*	14977-37-8
Methylene ureas	*	9011-05-6
Selected <b>soil bacteria</b> beneficial for horticulture	400,000 cfu/g	68038-70-0

\*Percentages proprietary

‡Silica values represent total percentages. Amount of *respirable* particulates is significantly lower.

### ***Section 4 – First Aid Measures***

The bacteria in this product are not typically associated with disease or infection under normal circumstances (Biosafety Level 1). However, normal hygiene practices are in order.

**Skin:** Wash affected area with soap and water. If material contacts open wounds, wash affected area and treat with an approved antiseptic. Watch for allergic reaction or infection (unlikely).

**Eyes:** If material gets into eyes, rinse eyes with gentle flowing water for a few minutes, or until relief occurs. Watch for allergic reaction or infection (unlikely). Some ingredients can be abrasive. See physician if irritation persists, or if problems develop.

**If ingested:** Product may irritate digestive tract if ingested. Treat symptoms if any occur. Do not induce vomiting unless advised otherwise by competent medical professionals.

**Inhalation:** No outward symptoms are expected other than possible nasal irritation or cough during high exposure. If allergic reaction or difficulty breathing occurs, move to fresh air and get immediate medical attention.

If a suspected skin, eye, or respiratory irritation or infection occurs, see a physician for treatment.

#### **Symptoms of Excessive Exposure:**

**Acute:** Ordinary dust irritation is possible if excessive dust is produced. Mechanical irritation is possible if particles enter the eye. Irritation of the digestive tract might occur if significant amounts are ingested (perhaps one ounce [30 grams] or more), resulting in temporary diarrhea and/or vomiting.

**Chronic:** Excessive and repeated inhalation of nuisance dusts can cause irritation of respiratory tract with gradual development of lung irritation and/or damage.

**Normal and proper use of this product is not expected to cause significant inhalation exposure.**

### ***Section 5 – Fire-fighting Measures***

**Flash Point:** No Data      **Flammable Limits: LEL:** No Data      **UEL:** No Data

**Extinguishing Media:** Water mist, Foam, alcohol foam, CO<sub>2</sub>, or ABC Dry Chemical Extinguisher.

**Special Fire Fighting Procedures:** Fire fighters should wear standard fire-fighting gear, including butyl rubber boots, gloves, and body suit and a NIOSH/MSHA approved self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Not a fire or explosion hazard when stored under normal conditions. Product can burn. Avoid generating high levels of dust when handling large quantities.



**Section 6 – Accidental Release Measures**

Avoid breathing dust. Collect spilled product, and use as a fertilizer as originally intended. Wet down area to prevent dusting prior to sweeping up and collecting excess dust from spilled material while wearing a dust mask or respirator. The microbes in this product are beneficial and occur naturally in mature forest soil. No environmental damage is expected from an accidental spill.

**Section 7 – Handling and Storage**

Store in a cool, dry area. There are no special risks associated with storage. Gloves recommended when handling. Do not eat, drink, or smoke while handling this product. Wash hands thoroughly before eating, drinking or smoking. Wash hands after handling. Keep out of reach of children.

The bacteria contained in this product are strains of typically harmless soil microbes, and are not associated with disease or infections to normal healthy people. (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 after use. Remove and launder heavily soiled clothing separately before reuse. If an unlikely allergic response occurs, treat symptoms, and contact physician.

Persons with severely suppressed immune systems, such as those with advanced AIDS, or those taking harsh anti-rejection drugs, or those undergoing chemotherapy should contact their physician before handling ordinary microbial products.

**Section 8 – Exposure Controls/Personal Protection**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Crystalline Silica, Quartz	0.025 mg/m <sup>3</sup> (respirable)	250 mppcf %SiO <sub>2</sub> + 5	0.05 mg/m <sup>3</sup> (resp)
Nuisance Dusts	10 mg/m <sup>3</sup> (TWA- Total dust)	15 mg/m <sup>3</sup> (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	None established

**Respiratory Protection:** Dust mask, if needed. If airborne dust levels exceed the TLV for nuisance dusts, then use a NIOSH/MSHA approved respirator and/or mechanical ventilation.

**Ventilation:** Standard ventilation if needed.

**Protective Clothing:** nonporous gloves, and coveralls or apron, as needed.

**Eye Protection:** Not needed unless eye contact hazard exists; safety glasses are adequate.

**Other Protective Clothing or Equipment:** Open wounds or disruptions in the skin should be covered with a clean, dressing or patch before handling product to avoid contact with wounds.

**Section 9 – Physical and Chemical Properties**

Physical state	Tablet
Appearance	Grey-black tablet, mild odor.
Color	Grey-black
Odor	Slight
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
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
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

### ***Section 10 – Stability and Reactivity***

Chemically Stable.

Biologically stable under dry storage conditions at room temperature.

### ***Section 11 – Toxicological Information***

**Acute Oral Toxicity:** None known, acute toxicity not expected based on composition.

**Carcinogenicity:** This product contains a small amount of crystalline silica (sand mineral), which is common in mined mineral ingredients, like humate. IARC Monographs concludes that there is "limited evidence" of the carcinogenicity of inhaled crystalline silica to humans. Repeated and prolonged inhalation of significant quantities of fine silica dusts can be harmful to lungs, typically in occupations such as mining, where this mineral is encountered routinely and repeatedly. **Normal, proper use of this product is not expected to cause significant inhalation exposure.**

**California Proposition 65:** This product contains detectable quantities of chemicals (silica) known to the State of California to cause cancer.

**Remarks:** The bacteria contained in this product are typically strains that do not cause disease or infections under normal circumstances (Biosafety Level 1). However, normal hygiene practices are in order. 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.

### ***Section 12 – Ecological Information***

The bacteria in this product are not harmful to animals, plants or man, including aquatic life, and they are naturally occurring in forest soil ecosystems. No adverse ecological effects are reported or expected from normal use or from accidental land spill of this product.

Fish toxicity: None.

Daphnia toxicity: None.

Aquatic Effects: Fertilizers can increase BOD and COD in aquatic environments, and can trigger algae blooms if significant amounts are released.

### ***Section 13 – Disposal Considerations***

**Product:** Once the spilled material is collected, it may still be used immediately as a fertilizer as originally intended. It may be disposed with normal municipal trash, unless there are legal restrictions in



your locale. Otherwise, if allowed, it may be taken to a waste disposal site after consultation with the site operator or responsible authority. In all cases, the product should be disposed in accordance with local, state, and federal regulation.

Uncleaned Packaging: Packaging can be disposed normally, unless otherwise restricted locally.

***Section 14 – Transport Information***

Not Restricted in USA.

***Section 15 – Regulatory Information***

Fertilizer N.O.S.

Registration as a fertilizer or soil amendment is required in several US states. Registration as a microbial product is required in Hawaii. Registration as a soil inoculant is required in New York State. Label in accordance with State and Federal Laws, and if sold internationally, with EC Directives and other relevant national regulations. Register product where required.

**State Right to Know:** Crystalline silica is listed in: CA, IL, MA, NH, NY, NJ, PA

***Section 16 – Other Information***

**HMIS Ratings:** Health: 1\* Fire: 1 Reactivity: 0  
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic Hazard

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.