

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

Product Name: **Roots Flower Saver Plus 3 4 3**

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**

1-800-233-0628 1-(717-273-1685)

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

**2. HAZARDS IDENTIFICATION**

**Signal Word:** Warning

**Pictogram:** Silhouette



**Hazard Statements and Hazard Category:**

H316: Causes mild skin irritation. (Category 3)

H320: Causes eye irritation on contact. (Category 2B)

H333: May be harmful if inhaled repeatedly over prolonged periods. (Category 5)

H351: Suspected of causing cancer by prolonged/repeated inhalation. (Category 2)

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

P332: If skin irritation occurs, wash with plenty of soap and water.

P261: Avoid breathing dust.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P281: Use appropriate personal protective equipment as required to avoid breathing dust.

P351, P337: In case of eye contact, rinse cautiously with water for several minutes. If irritation persists: seek medical 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 infection in normally healthy people under normal circumstances (Biosafety Level 1). However, use good hygiene practices. Handle as rich soil or compost. Nonporous gloves recommended. Wash hands after handling. Avoid breathing dust. Keep it out of your mouth and broken skin. Persons with severely compromised immune systems should consult with their physician before handling microbial products.

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

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Item	CAS #	%
Humate*	1415-93-6	26.53
Seaweed extract/Meal	84775-78-0	16.25
Wheat bran	NA	10.5
Sulfate of Potash	7778-80-5	8.46
Feathermeal	NA	8
Monocalcium phosphate	7758-23-8	7
Meat and Bone meal	68920-45-6	6.08
Methylene ureas	9011-05-6	4.05
Rock Phosphate	65996-94-3	3.4
Mineral Oil	8042-47-5	2.8
Soy protein	9010-10-0	1.68
Urea	57-13-6	1.52
Calcium lignosulfonate	8061-52-7	1.1
Dolomite*	16389-88-1	1
Peanut skin meal	NA	0.84
Dextrose	50-99-7	0.36
Maltodextrin	9050-36-6	0.255
Kaolin clay*	1332-58-7	0.1
Yucca plant extract	90147-57-2	0.0506
Formononetin	485-72-3	0.015
Potassium lignosulfonate	68514-28-3	0.005
Bacteria <sup>‡</sup>	68038-70-0	1.12 Million cfu/g
Mycorrhizal Fungi spores <sup>‡</sup>	NA	7.2 spores/g

\*Note: Naturally mined minerals like humate, dolomite, and kaolin typically contain silica (sand) at amounts ranging from 1 to 6%. Fine silica particulates are considered as a carcinogen via repeated and prolonged inhalation. Total silica content of this product is estimated to be 1 to 2%.

<sup>‡</sup>Bacteria and fungi are provided on carriers of maltodextrin and kaolin, respectively. Their weights are included in the carrier.

**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**

**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	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. Use good hygiene practices when handling microbial products. Handle as rich soil or compost. Nonporous gloves recommended. Wash hands thoroughly after handling. Avoid breathing dust. Keep it out of your mouth and broken skin. Do not eat, drink, or smoke when using this product. Persons with severely compromised immune systems should consult with their physician before handling microbial products.
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*
Quartz silica	0.025 mg/m <sup>3</sup> (respirable)	30 mg/m <sup>3</sup> ÷ (%SiO <sub>2</sub> + 2)	3000 mg/m <sup>3</sup>
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)	Not Established

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

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        Nonporous 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	Not an oxidizer

**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:** High heat, sparks and open flames, as some ingredients may be burnable.

**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), dust inhalation

Symptoms	May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.
Sensitization	Contains peanut skin meal. Persons with peanut allergies may be sensitive.
Germ cell mutagenicity	None
Carcinogenicity	Potential occupational carcinogen. Naturally mined minerals like humate, kaolin and dolomite typically contain sand (silica) at amounts ranging from 1 to 6%. Fine silica particulates are considered to be carcinogenic via repeated and prolonged inhalation. (IARC, ACGIH)
Reproductive toxicity	None
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	Lungs-Silicosis; cancer
Target Organ Effects	Lungs-Silicosis; cancer
Aspiration hazard	No information available

The bacteria contained in this product are strains of typically harmless soil and water bacteria, and are not associated with disease or infection in normally healthy people under normal circumstances (Biosafety Level 1). However, reasonable precautions are in order. Use good hygiene practices. Handle with nonporous gloves. Wash hands after handling. Avoid breathing dust. Keep it out of your mouth and broken skin. Persons with severely compromised immune systems should consult with their physician before handling microbial products.

**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 applicable
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**

<b>DOT:</b>	Not Regulated	<b>ADR:</b>	Not Regulated
Proper Shipping Name:	Non Regulated	<b>ADN:</b>	Not Regulated
Hazard Class:	Not Applicable	<b>RID:</b>	Not Regulated
<b>IATA:</b>	Not Regulated	<b>IATA:</b>	Not Regulated
Proper Shipping Name:	Non Regulated	<b>TDG:</b>	Not Regulated
Hazard Class:	Not Applicable	<b>ICAO:</b>	Not Regulated
<b>IMDG/IMO</b>	Not Regulated	<b>MEX:</b>	Not Regulated
Hazard Class	Not Applicable		
Marine Pollutant	No		

**IMDG:** Not a dangerous good.  
**ICAO/IATA:** Not a dangerous good.

**15. REGULATORY INFORMATION**

**TSCA:** Complies

**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:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material .

**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).

**State Regulations – General:** This product is not regulated by any State as a hazardous material.  
**Component Analysis – State** Crystalline silica (Quartz): CA, IL, MA, NH, NY, NJ, PA, RI

**California Proposition 65:** This product may contain detectable quantities of a substance (sand mineral: silica) known to the State of California to cause cancer by prolonged, repeated inhalation over a long period of time (months to years).

**16. OTHER INFORMATION**

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.