



# Safety Data Sheet

29 CFR 1910.1200

**Section 1: Company and Product Identification**


**Product Name:** Sanctuary Roots

**Product Use:** Sanctuary Roots is a liquid foliar spray designed to feed the plant soluble calcium through the leaves.

**Company:** The Sanctuary, Inc  
 P.O. Box 656  
 Winter Park, CO 80482  
 PH: 970-726-4848

**Emergency Response:** 1-800-658-2481

**Section 2: Hazards Identification**

**Hazard Pictograms:** 

**Signal Word:** Caution

**Hazard Category:** Skin corrosion/irritation Cat 2  
 Serious eye damage/eye irritation Cat 2  
 Corrosive to metals Cat 1

**Hazard Statements:** H315: Causes skin irritation  
 H319: Causes serious eye irritation  
 H290: May be corrosive to metals

**Precautionary Statements:** P202: Do not handle until all safety precautions have been read and understood  
 P260: Do not breathe dust/fume/gas/mist/vapours/spray  
 P262: Do not get in eyes, on skin, or on clothing  
 P264: Wash thoroughly after handling  
 P280: Wear protective gloves/protective clothing/eye protection/face protection  
 P285: In case of inadequate ventilation wear respiratory protection  
 P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse  
 P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact  
 P308+313: IF exposed or concerned: Get medical advice/attention  
 P403+235: Store in a well ventilated place. Keep cool  
 P405: Store locked up  
 P406: Store in a corrosive resistant container, may corrode metallic surfaces  
 P411+235: Store at temperatures not exceeding 23 °C/73.4 °F.  
 P501: Dispose of contents/container in accordance with local/national/international rules.

**Hazards not otherwise classified:** Not applicable, none known.

**Section 3: Composition / Information on Ingredients**

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Urea	Skin Irrit. 2, H315 Irrit. 2B, H320	57-13-6	1-4%
Phosphoric Acid	Skin Corr. 1B, H314 Dam. 1, H318	7664-38-2	7.5-20%
Monopotassium Phosphate	Eye Dam./Irrit. 2B, H320	7758-11-4	2.5-5%
Calcium Nitrate	Skin Irrit 3, H316 Irrit. 2B, H320	10124-37-5	15%
Water		7732-18-5	56-74%

**Section 4: First Aid Measures**

**If ingested:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical. Loosen tight clothing such as a collar, tie, belt or waistband.

**If inhaled:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Eye contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Notes to Physician:** No specific antidote, medical staff contacts Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5: Fire Fighting Measures

**General Info:** May be combustible at high temperature. Non-explosive in presence of open flames and sparks, of shocks.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Extinguishing Method /** Use extinguishing media suitable for surrounding materials. SMALL FIRE: Use DRY chemical powder. LARGE FIRE:

**Equipment:** Use water spray, fog or foam. Do not use water jet. Fire Fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

**Hazardous Decomposition Info:** Thermal decomposition products are dependent on temperature. Under fire - hydrogen, phosphine (highly flammable gases), oxides of potassium, oxides of phosphorus.

**Fire Hazards in Presence of Various Substances:** Of metals. Slightly flammable to flammable in presence of heat.

**Special Remarks on Fire Hazards:** Reacts with metals to liberate flammable hydrogen gas. Formation of flammable gases with aldehydes, cyanides, mercaptans, and sulfides.

**Special Remarks on Explosion Hazards:** Mixtures with nitromethane are explosive. (Phosphoric Acid)

## Section 6: Accidental Release Measures

**Personal precautions, protective equipment and procedures:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounded areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through split material. Provide adequate ventilation.

Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Containment Equipment and Procedures:** Large Spills: Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. DO NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.

Small Spills: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Dispose of according to local and regional authority requirements.

## Section 7: Handling and Storage

**Safe Handling Precautions:** Do not handle until all safety precautions have been read and understood. Do not ingest. Do not breathe gas/fumes/ vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, combustible materials, metals alkalis. May corrode metallic surfaces. Keep locked up. Toxic to fish and other aquatic organisms. Do not contaminate water supplies by handling and storage of product. Drift or runoff may adversely affect aquatic invertebrates and non-target plants.

**Recommendations for Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23°C (73.4°F). Store in original packaging as approved by manufacturer.

**Incompatibilities:** Reactive with oxidizing agents, combustible materials, metals, alkalis. Refer to Section 10.

## Section 8: Exposure Control / Personal Protection

**General / Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Work Clothing:** Full suit.

**Eye/face protection:** Wear safety goggles or face shield.

**Skin Protection:** Gloves. Boots.

**Respiratory Protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Additional Information:** Observe good chemical hygiene practices. Do not smoke or eat while using this product. Wash hands or exposed skin after using the product.

**Personal Protection In Case of a Large Spill:** Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## Section 9: Physical and Chemical Properties

<b>State:</b> Liquid	<b>Melting Point:</b> Not avail	<b>Freezing Point:</b> Not avail
<b>Color:</b> Clear	<b>Boiling Point/Range:</b> Unknown	<b>pH</b> <1.0
<b>Sp Grav:</b> Not avail	<b>Odor:</b> None	<b>Water Solubility:</b> 100%
<b>Evaporation rate:</b> Not avail	<b>Flash Point:</b> Not avail	<b>Part. Coeff (n-octanol/water):</b> Not avail
<b>Upper Flam Limits:</b> Not avail	<b>Lower Flam Limits:</b> Not avail	<b>Vapor Pressure:</b> Not avail
<b>VOC Content (lbs/gal):</b> 0	<b>Viscosity:</b> Not avail	<b>Autoignition Temp:</b> Unknown

## Section 10: Stability and Reactivity

**General:** This product is stable.

**Incompatible materials:** Reactive with oxidizing agents, combustible materials, metals, alkalis.

**Special Remarks on Reactivity:** Hygroscopic. Absorbs moisture from air. Reacts violently with Gallum Perchlorate. Reacts with chlorine to form chloramines. It also reacts with the following: sodium hypochlorite, sodium nitrate, calcium hypochlorite, NaNO<sub>2</sub>, P<sub>2</sub>Cl<sub>5</sub>, nitrosyl perchlorate, strong oxidizing agents (permanganate, nitrate, dichromate, chloride).

**Corrosivity:** Corrosive in presence of copper, of stainless steel(304), of stainless steel(316). Corrosive in presence of aluminum. Minor corrosive effect on bronze. Severe corrosive effect on brass. Corrosive to ferrous metals and alloys. Non-corrosive in presence of glass.

**Materials to Avoid:** Organic chemicals. Ammonia. Strong oxidizing agents, strong acids.

**Conditions to Avoid:** Excess heat.

**Hazardous Decomposition products:** Decomposes on heating emitting toxic fumes, including those oxides of nitrogen, hydrogen, phosphine, oxides of phosphorous, oxides of potassium.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes or Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Chronic Effects on Humans:** May cause damage to the following organs: blood, liver, skin, eyes, bone marrow. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. May cause damage to the following organs: blood, cardiovascular system.

**General Information:** Nitrates: Ingestion of large quantities will cause methaemoglobinemia with headaches, heart beat irregularities, blood pressure loss, cramps and breathing difficulties. cyanosis will occur. Nephritis can result from chronic exposure.

**Special Remarks on Chronic Effects on Humans:** May cause adverse reproductive effects (fetotoxicity) and genetic material (mutagenicity) based on animal studies. Passes through the placental barrier in human and is present in breast milk.

**Special Remarks on Other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Causes irritation of the respiratory tract, nose, and throat, coughing and sneezing. May also affect blood, metabolism and urinary system. Ingestion: Causes digestive (gastrointestinal) tract irritation with nausea, vomiting, and diarrhea. May affect behavior (altered sleep time, change in motor activity), cardiovascular system (heart rate), and the brain. May also affect the blood and may cause tumorigenic effects. Chronic Potential Health Effects: Prolonged exposure may cause adverse reproductive effects. Laboratory experiments on animals have resulted in mutagenic effects. Prolonged exposure or exposure at high concentrations may cause eye damage.

## Section 12: Ecological Information

**General information:** Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

**Ecotoxicity:** No data available.

**Products of Biodegradation:** Possible hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Environmental Fate:** Avoid contaminating waterways, drains and sewers.

#### Section 13: Disposal Information

**Waste Disposal Procedures:** Dispose according to federal, provincial/state and local environmental regulations.

#### Section 14: Transport Information

**Shipping Name:** Sanctuary Roots

#### Section 15: Regulatory Information

#### Section 16: Other Information

**SDS Author:** The Sanctuary, Inc

**Version Date:** 1/15/17

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