

ROOT FEED SUPPLEMENT

Material Safety Data Sheet (rev.01/05)

**SECTION I PRODUCT IDENTIFICATION**

	<b>NFPA HAZARD RATINGS</b>
	HEALTH HAZARD 1      FIRE HAZARD 0      REACTIVITY 0
	<b>SARA/ TITLE III HAZARD CATEGORIES</b>
	Immediate (ACUTE) Health: NO      Reactive Hazard: NO
	Delayed (Chronic) Health: NO      Fire Hazard: NO      Sudden Release of Pressure: NO
Company Name:	STOLLER USA, INC
Address:	4001 W. Sam Houston Parkway, N. Suite 100 Houston, Texas 77043-1226 U.S.A.
Emergency Phone Number:	CHEMTREC: In the USA and Canada call toll-free: 1-800-424-9300 From all other countries call collect: 1(703) 527-3887
Phone Number for Information:	1(800) 539-5289 or 1(713) 461-1493
Chemical Family:	Inorganic Salt Solution
Chemical Name & Synonyms:	metallic oxides and sulfates
Formula:	See SECTION II COMPOSITION/ INGREDIENTS INFORMATION
Trade name & Synonyms:	<b>ROOT FEED SUPPLEMENT</b>

**SECTION II PHYSICAL AND CHEMICAL CHARACTERISTICS**

INGREDIENTS:	CAS#	Approx. %	TLV
Urea	57-13-6	...< 2	10 mg/ m <sup>3</sup>
Potassium Hydroxide	7447-40-7	< 2	Not established
Zinc Oxide	1314-13-2	< 5	2 mg/ m <sup>3</sup> as Zn
Manganese Oxide	1344-43-0	< 5	5 mg/ m <sup>3</sup> as Mn
Tri- Basic Copper Sulfate	1332-14-5	< 5	1 mg/ m <sup>3</sup> as Cu

**SECTION III PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b>	240°F (116°C)	<b>VAPOR PRESSURE (mm/ Hg):</b>	
<b>MELTING POINT:</b>	N/ A	<b>VAPOR DENSITY (air = 1):</b>	2.1
<b>SPECIFIC GRAVITY:</b>	1.2	<b>REACTIVITY IN WATER:</b>	N/ A
<b>SOLUBILITY IN WATER:</b>	100%	<b>EVAPORATION RATE:</b>	0.1
<b>APPEARANCE AND ODOR:</b>	Dark blue solution, slight pleasant odor.		
<b>PERCENT VOLATILE BY VOLUME:</b>			

**SECTION IV FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b>	NOT ESTABLISHED		
<b>FLAMMABLE LIMITS:</b>	NOT ESTABLISHED	<b>LEL:</b>	<b>UEL:</b>
<b>EXTINGUISHER MEDIA:</b>	Product is non- flammable. Use extinguisher media suitable to fight surrounding fire.		
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	NONE		
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	Toxic fumes may be generated under fire conditions.		

**SECTION V****PHYSICAL HAZARDS (REACTIVITY DATA)**

**STABILITY:**  
**CONDITIONS TO AVOID:**  
**INCOMPATIBILITY, MATERIALS TO AVOID:**  
**HAZARDOUS DECOMPOSITION PRODUCTS:**  
**MAY OCCUR:**                      **WILL NOT OCCUR: X**

Stable: Yes            Unstable:  
Stable under normal conditions.  
Not established. As a precaution avoid strong oxidizers.  
None

**SECTION VI****HEALTH HAZARDS**

- A. EXPOSURE LIMITS:**  
1. OSHA Permissible Exposure Limit (PEL): NOT ESTABLISHED  
2. Threshold Limit Value (TLV): NOT ESTABLISHED
- B. CARCINOGEN OR POTENTIAL CARCINOGEN:**
- C. EFFECTS OF OVEREXPOSURE:**  
1. **ACUTE:**  
**EYES:** May be irritating.  
**SKIN:** May irritate skin with extended exposure.  
**INHALATION:** May cause irritation.  
**INGESTION:** May cause diarrhea, vomiting and stomach pain, may be fatal.  
2. **CHRONIC:** Not Known.
- D. EMERGENCY FIRST AID PROCEDURES:**  
**EYES:** Flush with clean running water for at least 15 minutes.  
**SKIN:** Wash with soap and water; remove contaminated clothing.  
**INHALATION:** Remove person to fresh air and get medical attention if victim does not react.  
**INGESTION:** Give large amount of milk or water to induce vomiting. Get medical attention immediately.
- E. ANIMAL TOXICITY DATA:** Primary dermal irritation rabbit: No irritation in test, Toxicity Category IV  
Oral LD<sub>50</sub> (rat): 3027 mg/ Kg  
Inhalation LC<sub>50</sub>(rat):> 2.31 mg/ Lt  
Dermal LD<sub>50</sub> (rabbit):>5050 mg/ Kg

**SECTION VII****SPECIAL PRECAUTIONS & SPILL/ LEAK PROCEDURES**

**HANDLING AND STORAGE:** Keep containers closed and dry, use vented lids. Wash hands thoroughly after using.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED:** Prevent material from entering sewers or waterways. Recover as much as possible, then use absorbent inert to collect the remaining residues and put material in covered labeled containers, disposing of it as a solid waste.

**WASTE DISPOSAL METHODS:** Follow all applicable Federal, State and Local regulations.

**SECTION VIII****SPECIAL PROTECTION / CONTROL MEASURES**

**RESPIRATORY PROTECTION:** Wear a NIOSH / OSHA approved respirator if working conditions require to do so.

**LOCAL EXHAUST:** Provide general or local exhaust ventilation should working conditions require additional ventilation.

**SPECIAL VENTILATION:** Not necessary if working in open spaces or normally well- ventilated area.

**PROTECTIVE GLOVES:** Wear protective gloves impervious to this material.

**EYE PROTECTION:** Safety glasses should be worn in any type of operation. Protective gloves should be worn as good hygiene dictates.

**OTHER SPECIAL CLOTHING/ EQUIPMENT:** Eye wash fountain should be located in immediate work area. Wearing protective clothing, long sleeved shirt and long pants or coveralls is always a good practice when working with chemicals.

**SECTION IX****ENVIRONMENTAL EFFECTS DATA**

The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer (see above under Waste Disposal Methods). Due to its hormonal value, may contribute to eutrophication in bodies of water. To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section I. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.

**SECTION X****TRANSPORTATION DATA**

**PROPER SHIPPING NAME:** Not Applicable (Trade name: ROOT FEED SUPPLEMENT)

**DOT HAZARD CLASS:** Non- Hazardous Material. Non- Regulated Material

**PLACARD:** N/ A

**USDOT Proper Shipping Name:** N/ A

**IATA Proper Shipping Name:** N/ A

**IMO Proper Shipping Name:** N/ A

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