

NOVOZYMES BIOLOGICALS, INC.
111 Kessler Mill Road
Salem, VA 24153

Telephone number: 540-389-9361 Fax: 540-389-9364

Emergency Contact: 540-389-9361 CHEMTREC: 1-800-424-9300

Material Safety Data Sheet

Date: 03/07/2005

SECTION I—PRODUCT IDENTIFICATION

NAME: dryROOTS®	PRODUCT CODE: - 7004201-703
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DOT CLASS: Non-regulated
UN NUMBER: NA
PROPER SHIPPING NAME: NA

HMIS RATING

HEALTH	1
FIRE	0
REACTIVITY	0

SECTION II - INGREDIENTS

ALL COMPONENTS APPEAR ON THE TSCA INVENTORY. COMPONENTS NOT LISTED IS EITHER NON HAZARDOUS OR IN CONCENTRATIONS OF LESS THAN 1%.

Ingredient Name	CAS Number	OSHA PEL	ACGIH TLV/TWA
Vitamin B1 (Thiamine)	532-43-4	NA	NA
Vitamin C (Ascorbic acid)	50-81-7	NA	NA
Ferrous Sulfate	7782-63-0	NA	NA

SECTION III – PHYSICAL CHARACTERISTICS

Boiling Point	100 °C	Appearance and Odor	Chocolate to Brown colored course granular solid.
Density	0.8 Bulk density	Melting Point	Decmpmposes .400F
pH	10% solution 7.0	Vapor Density	NA
Vapor Pressure	NA	Solubility	Very slight

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SECTION IV – FIRE/EXPLOSION

Flash Point:	NA
Flash Point Method Used:	NA
LEL	NA
UEL:	NA

Extinguishing Media: Water spray, carbon dioxide, and dry chemical powder.

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None known.

SECTION V – REACTIVITY DATA

Stable: X **Unstable:**

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition or By Products: Ammonia, SO_x and NO_x may be formed if product is highly heated or oxidized.

Hazardous Polymerization: Will not occur.

SECTION VI – HEALTH HAZARD DATA

Acute Health Affects

Routes of Entry:	Inhalation: Yes	Absorption: Yes	Ingestion: Yes	Eyes: Yes
	(dust)			

Eyes: This product will cause eye irritation.

Skin Contact: Prolonged contact may cause irritation, contact dermatitis and drying of the skin.

Inhalation: Inhaling dust from this product could cause irritation to the lungs and mucus membranes.

Ingestion: Ingestion may result in abdominal pain, nausea and vomiting.

Conditions to Avoid: Contact with strong oxidizers.

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Signs and Symptoms of Over Exposure: None Known

Aggravated Medical Conditions: None known, however persons with respiratory problems should avoid breathing any dust from this product.

Emergency First Aid Procedures

Eye Contact: Rinse eyes with water for fifteen minutes, if irritation persists, see a physician.

Inhalation: Move person to fresh air and avoid breathing dust from product. If breathing problems develop, seek the care of a physician.

Skin Contact: Wash the product off the skin with soap and water; if irritation develops seek the care of a physician.

Ingestion: Watch victim for any signs of illness, contact a physician immediately, induce vomiting only if advised by a physician.

SECTION VII – SPILL OR LEAK PROCEDURE

Steps to be taken in case material is spilled or leaked:

Waste Disposal Method: Contain and collect material, place in proper container for reuse or disposal. Dispose of materials in accordance with all federal, state and local laws. Ferrous Sulfate is listed as a CERCLA Hazardous Substance.

Precautions To Be Taken In Handling and Storage: Store in a location away from children, food items and potable water.
Store in an area out of the direct sunlight, avoid storage above 100 F or below 32 F, keep container closed when not in use and avoid storing in a damp environment.
Always wash hands with soap and water before handling food or smoking.
Use good chemical hygiene practices when working with any chemical.

Other Precautions: None

SECTION VIII – CONTROL MEASURES (PPE)

Respiratory Protection: None required for normal use.

Protective Gloves: Recommended. Disposable nitrile exam gloves are suitable for preventing prolonged contact with the skin.

Eye Protection: Safety glasses with side shields or splash goggles are recommended.

Other Protective Clothing: None required, however, avoid prolonged contact with the skin from soiled clothing.

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Ventilation: Local exhaust should be sufficient. If used in a manner that creates a dust, mechanical ventilation may be necessary.

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal, state and local laws.