

* The exact percentage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

SECTION 4: First Aid Measures

Description of First Aid Measures:

Eye contact: Flush eyes immediately with large quantities of water for at least 15 minutes holding eyelids apart to ensure flushing of the entire surface. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Washing eyes within one (1) minute is necessary to achieve maximum effectiveness. If irritation persists, get medical attention.

Skin contact: Brief contact with the skin is not toxic. Seek medical attention if symptoms are present.

Ingestion: No emergency medical treatment necessary. Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water or milk of magnesia; if available, several glasses of milk. If effects occur, consult a physician.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Protection of First-aiders: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Most important symptoms/effects, acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed:

Notes to physicians: Absorption may be promoted by damaged skin. J Pharm Sci. 1985 Oct;74(10):1062-6; Burns Incl Therm Inj 1982 Sep;9(1):49-52. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media: Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function but will be less effective.

Unsuitable Extinguishing Media: Do not use direct water stream. May spread fire.

Specific hazards arising from chemical or combustion: This product is non-combustible.

Unusual Fire Fighting and Explosion Hazards: None.

Special Protective Equipment and Precautions for Firefighters:

Special Fire Fighting Procedures: None.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Accidental releases do not pose environmental risks. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Prevent further spillage, if safe. Accidental releases do not pose environmental risks. Sweep up. Transfer to suitable, labelled containers for reuse or disposal. Clean spillage area thoroughly with plenty of water. See Section 13, Disposal Considerations, for additional information.

SECTION 7: Handling and Storage

Precautions for safe handling:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for storage, including any incompatibilities:

Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers immediately after use. Store away from food and beverages. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust.

SECTION 8: Exposure Controls/Personal Protection**Control Parameters:****Exposure Guidelines**

Mixture Name	ACGIH TLV	OSHA PEL	NIOSH DHL
Mikro-Root	No data available.	No data available.	No data available.

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Engineering Controls:

Use adequate ventilation, Local exhaust ventilation may be necessary for some operations and/or respiratory protective equipment.

Individual Protections Measures, such as personal protective equipment:

Respiratory Protection: Wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Skin Protection/ Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Other Protective Clothing or Equipment: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full-body suit will depend on the task.

SECTION 9. Physical and Chemical Properties

Appearance: White powder

Odor: Musty.

Odor Threshold: No data available.

pH: No data available.

Melting point/freezing point: No data available.

Boiling point: No data available.

Flash point: No data available.

Evaporation rate: No data available.

Flammability (solid/gas): Not applicable.

Upper flammability limit: Not applicable.

Lower flammability limit: Not applicable.

Explosive limits: Not applicable.

Vapor pressure: No data available.

Vapor density: No data available.

Relative density: No data available.

Solubility(ies): +95% Soluble in water.

Partition coefficient: No data available.

Auto-ignition Temperature: No data available.

Decomposition Temperature: No data available.

Kinematic viscosity: No data available.

Dynamic viscosity: No data available.

Explosive properties: No data available.

Oxidizing properties: No data available.

Other Information:

Softening Point: No data available.

VOC Content (%): No data available.

Particle Size: No data available.

Particle Size Distribution: No data available.

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and Reactivity

Reactivity: Stable under normal storage conditions.

Chemical stability: Stable under normal storage conditions.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: None.

Incompatible materials: Strong oxidizers, acids, peroxides.

Hazards Decomposition Products: Carbon monoxide. Carbon dioxide.

Conditions Contributing to Hazardous Polymerization: None.

SECTION 11: Toxicological information**Information of likely routes of exposure:**

Product Information No acute toxicity data available.

Inhalation: Particulates may be irritating respiratory tract.

Eye Contact: May cause slight irritation.

Skin Contact: Substance does not generally irritate.

Ingestion: May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Component Information:

Components	Oral LD50	Dermal LD50	Inhalation LC50
Mikro-Root	No data available.	No data available.	No data available.

Information on toxicological effects:

Symptoms No data available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No data available.

Mutagenic effects No data available.

Carcinogenicity No data available.

Reproductive Toxicology No data available.

STOT- Single Exposure No data available.

STOT- Repeated Exposure No data available.

Aspiration Hazard No data available.

Numerical measures of toxicity - Product Information

No data available.

SECTION 12: Ecological Information

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulation potential: No information available.

Mobility in soil: No information available.

Other adverse effects: No information available.

SECTION 13: Disposal Considerations

Waste Disposal Method: Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. However, disposal should be in compliance with federal, state and local laws.

Contaminated Packaging: Dispose of in accordance with all applicable federal, state, and local regulations.

SECTION 14: Transportation Information

Classification	DOT	ICAO/IAT	IMDG/IMO	TDG
Proper shipping name	Not Regulated.	Not Regulated.	Not Regulated.	Not Regulated.
UN number	Not Regulated.	Not Regulated.	Not Regulated.	Not Regulated.
Class	No data available.	No data available.	No data available.	No data available.
Packing group	No data available.	No data available.	No data available.	No data available.
Environmental hazards	No data available.	No data available.	No data available.	No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: Regulatory Information**Chemical Inventories**






TSCA Some components of this product may not be listed on the TSCA 8(b) Inventory.

DSL/NDSL Some components of this product may not be listed on the DSL or NDSL. No Chemical Safety Assessment has been performed.

SECTION 16: Other Information

Product Literature

Additional information on this product may be obtained by calling your sales service contact. Ask for a product brochure. Additional information on this and other products may be obtained by visiting our web page.

Diamond	Hazard	Value	NAFP Description
	 Health	0	Poses no health hazards.
	 Flammability	0	Materials will not burn.
	 Instability	0	Normally stable, even under fire conditions.
	 Special		

This Safety Data Sheet was prepared in accordance with 29 CFR 1910:1200. All information, recommendations and suggestions appearing herein concerning our product are based upon tests and/or data believed to be reliable; however, it is the user's responsibility to determine the safety, toxicity and suitability for their own use of the product described herein. Since actual use by others is beyond our control, no guarantees, expressed or implied, are made by Microbial Applications, and its representatives as to the effects of such use, the results to be obtained or the safety and toxicity of the product, nor does Microbial Applications, or its representatives assume any liability arising out of the use by others of the product referred herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws of government regulations.

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