SECTION I: MATERIAL IDENTIFICATION

Chemical Name: Ammonium Lignin Sulfonate (Lignosulfonate) RTU

Distributor: EnviroTech Services, Inc.
Address: 910 54th Avenue, Suite 230
Greeley, CO 80634
Telephone: (970) 346-3900
Fax: (970) 346-3959
Date Prepared: April 9, 1999
Date Updated: January 1, 2010

SECTION II: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

No Hazardous Ingredients

C.A.S. No.: 8061-53-8

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

pH: 3.5-5.5 As Received
Boiling Point: 212°F
Vapor Density: Not Applicable
Solubility in Water: 100%
Specific Gravity: 1.10-1.170
Melting Point: Not Applicable
Appearance and Odor: Dark brown liquid with woody odor

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flammability: N/A Not Flammable or combustible
Upper Explosion Limit: N/A
Lower Explosion Limit: N/A
Fire Fighting Procedures: Product not flammable. Use appropriate fire fighting procedures for surrounding fires and combustible materials.
SECTION V: REACTIVITY DATA

Stability: Stable under normal temperatures and pressures
Incompatibilities: Strong oxidizing agents, concentrated acids, Nitric acid.
Hazardous Decomposition Products: Thermal decomposition may release toxic oxides of carbon, sulfur and nitrogen. (CO₂, CO, NOₓ).
Hazardous Polymerization: Will not occur.

SECTION VI: HEALTH HAZARD DATA

Routes of Entry:
- Eye Contact: Avoid. Any foreign material in the eyes can cause irritation.
- Skin Contact: Prolonged contact may cause light skin irritation in sensitive individuals.
- Inhalation: N/A
- Ingestion: None
- Toxicity: LD₅₀, Toxicological studies on lignosulfonates indicate that they are non toxic. In literature, LD₅₀ for lignosulfonates has been reported to be 20,000 mg/kg body weight by ingestion. Materials with LD₅₀ values of 5,000 mg/kg of body weight and greater are considered to be non toxic.

Emergency and First Aid Procedures:
- Eye Contact: Flush eyes with lukewarm flowing water, holding eyelids open intermittently, for at least 20 minutes. Contact physician if irritation persists.
- Skin Contact: Wash with flowing water. Normal hygiene practices.
- Inhalation: N/A
- Ingestion: Not normally applicable unless copious quantities ingested. Drink large amounts of water. Do not induce vomiting. Do not give water to unconscious person. Contact a physician if irritation persists.

SECTION VII: PRECAUTION FOR SAFE HANDLING AND USE

Spill and leak procedures: Small spills flush with water. Large spills dyke and reclaim product or store for disposal as solid waste.
Waste Disposal Method: Dispose in accordance with federal, state, or local regulations.
Personal Protective Equip: Impervious or rubber gloves recommended for prolonged exposure. Safety glasses with side shields required to prevent eye contact. Work clothes changed daily. Follow normal hygiene procedures.
Ventilation: Not normally required.
Respiratory Protection: Not normally required.

The information contained in this Material Safety Data Sheet is, to the best of our knowledge, accurate and reliable. No warranty of any kind is either expressed or implied.

This information should be provided to all individuals handling this product. Federal, state, and local regulations should be followed when handling this product.