AMMONIUM LIGNIN SULFONATE

ENVIROTECH SERVICES, INC.

MATERIAL SAFETY DATA SHEET

SECTION I: MATERIAL IDENTIFICATION

Chemical Name: **Ammonium Lignin Sulfonate (Lignosulfonate)**

Distributor:	*EnviroTech Services, Inc.*	Manufacturer:	Rayonier Pulp
Address:	*910 54th Avenue, Suite 230*		*Foot of Gum Street*
	Greeley, CO 80634		Fernandina Beach Fl. 32034
Telephone:	*(970) 346-3900*		*(819) 627-4322*
Fax:	*(970) 346-3959*		***In Case of Emergency Call:***
Date Prepared:	*April 9, 1999*		*(819) 627-3200*
Date Updated:	*April 1, 2008*		

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. (CO_2, CO, NO_x).*
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 luke warm 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.

EARTHBIND 100

Earthbind™ Material Safety Data Sheet

Quick Identifier: Emulsified Dust Suppressant
Address: 2606 N. Newark St. Portland, Oregon 97217
Manufacturers Name: EnviRoad LLC
Other Information Calls: 800-536-2650

Identity - Section I

Trade Name and Synonyms: Earthbind 100
CAS Number: Mixture
Chemical Name: NA

NFPA Hazardous Identification
Health: 1
Fire: 0
Reactivity: 0

0 - Least
1 - Slight
2 - Moderate
3 - High
4 - Extreme

Composition Information on Ingredients - Section II

Ingredients		*%*	*OSHA PEL*	*ACGIH TLV*
Petroleum Resin	64742-16-1	40-60	NE	NE
Stabilizer	Proprietary	5-30	NE	NE
Emulsifier	Proprietary	< 6.0	NE	NE
Water	7732-18-5	Balance	NE	NE

Additional Comments: Though further detail on contents may be confidential, all pertinent hazards are addressed in this MSDS.

Physical & Chemical Characteristics - Section III

Boiling Point	100 C
Vapor Pressure (mm Hg)	NA
Percent Volatile by Volume	NA
Solubility in Water	Complete
Specific Gravity (H20=1.00)	0.9 to 1.02
Vapor Density (air@1)	NA
Evaporation Rate (H20 = 1)	NA
Reactivity in Water	None
Viscosity @ 122F CST	100-800
Appearance and Odor	Dark Brown Liquid; Hydrocarbon and lignosulfonate odor
Additional Comments	Material is a hydrocarbon/water emulsion and will not combust until water is driven off.

Fire And Explosion Hazard Data - Section IV

Flash Point	NA
Flammable Limits in Air	(hydrocarbon/ water emulsion)

NE = None Established
ND = No Data Available
NA = Not Applicable
Revised 09/05/03

% by Volume	
Extinguisher Media	Dry Chemical, CO2, Halon, Water Spray, or standard foam
Fire Fighting Procedures	Move containers from fire area if possible. Cool fire-exposed containers with water from side until well after fire is out. Stay away from storage tank end for massive fire in storage area. Use unmanned hose holder or monitor. Use flooding amounts of water as a fog, as solid streams may be ineffective. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage vessel due to fire. Extinguish only if flow can be stopped. Water or foam may cause frothing. Avoid breathing toxic vapors and keep upwind.
Additional Comments	Material is a hydrocarbon/water emulsion and will not ignite until water is driven off.

Reactivity Data - Section V

Stability/Conditions to Avoid	Material is stable under normal temperature and pressure. Do not expose to prolong heating above 100C.
Incompatibility/Materials to Avoid	None
Hazardous Polymerization/ Conditionsto Avoid	None
Hazardous Byproducts of Decomposition	Thermal decomposition may release hazardous gases.

Health Hazard Data - Section VI

Route of Entry	*Legend: A: Health Effect; B: Personal Protection; C: Emergency First Aid Procedures*
Inhalation	A. Avoid prolonged inhalation of vapors or mist. Product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions.
	B. Provide exhaust ventilation system to meet published exposure limits.
	C. Remove victim from exposure to fresh air immediately. If breathing has stopped, give artificial respiration. Keep victim warm and at rest. Treat symptomatically and supportively. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.
Skin	A. Direct contact with hot fumes may cause slight skin irritation. Repeated or prolonged exposure to fumes may cause irritation, dermatitis, and acne-like lesions.
	B. Employee must wear appropriate protective impervious clothing, gloves, and equipment to prevent repeated or prolonged skin contact.
	C. If contact is not with hot materials, remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent, and large amounts of water until no evidence of material remains (15 to 20 minutes). Burns from contact with hot material should be treated like thermal burns.
Route of Entry	*Legend: A: Health Effect; B: Personal Protection; C: Emergency First Aid Procedures*
Ingestion	A. May cause nausea, gastro-intestinal irritation, and vomiting.
	B. Do not induce vomiting.

C. Treat symptomatically and supportively. Get medical attention immediately. If vomiting occurs, lower heat to prevent aspiration.

Eyes

A. Contact with eyes may cause redness and irritation. Repeated or prolonged exposure to fumes may cause conjunctivitis.

B. Employee must wear splash-proof or dust-resistant safety goggles of face shield.

C. Wash eyes immediately with large amounts of water. Lift upper and lower lids until no evidence of material remains (15 to 20 minutes). Cover with sterile bandages. Get medical attention immediately.

Medical Conditions Aggravated by Exposure No adverse reactions expected at concentrations normally encountered.

Safe Usage Information - Section VII

Handling, Storage & Other Precautions	This product is not classified as hazardous under DOT reg. Keep away from heat, sparks, and oxidizing agents. Keep container closed when not in use. Observe all Federal, State and Local regulations when handling, storing or disposing of this material.
Action to be Taken in Case of Spill or Release (Including Disposal)	Shut off area ignition sources. Stop leak if it can be done without risk. Use water spray to reduce vapors. For small spills, use absorbent material and place into container. Dike ahead of large spill for later disposal. Prohibit smoking in affected area. Isolate area and restrict entry.

Control Measures - Section VIII

Ventilation Requirements Provide exhaust ventilation system to meet published exposure limits.

Work Hygiene Practices

Respirator Selection of respiratory protection must be based upon the airborne level of suspected contaminant. Levels found in the work place must not exceed the working limit of the respirator utilized.

Dermal Workers must wear appropriate protective clothing, gloves, and equipment to prevent repeated or prolonged contact with skin.

Eyes Proper eye/face protection must be utilized to protect against splashes and vapors.

Carcinogenicity Not listed as a carcinogen by IARC, TSCA, NTP, OSHA or ACGIH

Transportation - Section IX

D.O.T. Proper Shipping Name (49 CFR 172.101)	Non-hazardous Emulsion
D.O.T. Hazard Class (49 CFR 172.101)	NA
UN / NA Code (49 172.101)	NA
Packaging Group (49 172.101	NA
Bill Of Lading Description (49 172.101)	Non-hazardous Emulsion
D.O.T. Labels Required (49 172.101)	NA
D.O.T. Placards Required (49 172.101	NA

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