

Section 1 – Product Identification

Product: Terreplex

Common Name: Calcium Lignosulfonate, Lignosulfonic Acid Mixture Chemical Formula: Amorphous Polymer

Synonyms: See Above Chemical Family: Wood Chemicals

Manufacturer: CAS Numbers: 8061-52-7 + 8062-15-5

Shipping Name – DOT: Lignin Liquor – Class 55

Hazard Class – DOT: Not Restricted UN Number: Excluded

Hazard Class – IATA: Not Restricted Physical State: Liquid

HMIS Rating (0-4) HEALTH = 1 FIRE = 0 REACTIVITY = 0 SPECIAL = 0

Section 2 – Hazardous Ingredients

Principal Hazardous Components	Percent	Other Limits Recommended
NA	NA	245 mg/m ³

Recommended NFPA Rating: Health: NE Fire: NE Reactivity: NE

THE NFPA RATING HAS NOT BEEN ESTABLISHED FOR THIS PRODUCT

PA Right-to-Know: This product contains proprietary ingredients.

This product contains the following chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372 (the corresponding CAS number and typical percent by weights are also provided): **NONE**

Section 3 – Physical/Chemical Characteristics

Boiling Point (C):	104C	Specific Gravity (H ₂ O = 1):	1.20
Freezing Point (C):	-2C	pH (3% Soln):	2 – 3
Vapor Pressure (mm Hg):	14.2 @ 20C	Bulk Density (g/ml):	NE
Vapor Density (AIR = 1):	1.21 @ 20C	Solubility in Water:	100 % Soluble
% Volatiles By Weight:	45 (water)	Evaporation Rate:	Normal 0.4 (water)
Appearance & Odor:	Brown Liquid, slight odor	Water/Oil Dist. Coeff.:	100% in water

Section 4 – Fire and Explosion Hazard Data

Flash Point:	ND	LEL:	ND
Flammable Limits:	ND	UEL:	ND
Extinguishing Media:	Use dry chemical, carbon dioxide, waterspray or alcohol resistant foam		
Special Firefighting Procedure:	None..		
Unusual Fire and Explosion Hazards:	May react with metals (iron, zinc or aluminum) to form highly flammable Hydrogen gas which can form explosive mixture with air		

Section 5 – Reactivity Data

Stability:	Stable
Conditions to Avoid:	Contact with strong oxidizing agents, strong caustics, extreme heat
Incompatibility:	Strong bases or oxidizing agent
Materials to avoid:	Metals
Hazardous Decomposition or Byproducts:	Sulfur dioxide, carbon dioxide, and carbon monoxide
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Extreme heat

Section 6 – Health Hazard Data

Threshold Limit Values:	OSHA PELV = None established. Minimize contact with eyes, skin clothing
Carcinogen Listings – NTP / IARC:	Not a carcinogen
Primary Route(s) of Entry:	Skin contact, eye contact, inhalation
Symptoms of Overexposure:	See notes to physician below
Conditions of Aggravated by Exposure:	None known.
Irritancy of Material:	Mucous membrane and skin – mild irritant, Eye – considered an irritant Characteristic of mild organic acids.
Sensitization to Material	
Teratogenicity:	None known
Mutagenicity:	None known
Reproductive Toxicity:	None known
Synergistic Substances:	None known
First Aid – Eyes:	Flush eyes with water for at least 15 mins. And consult with physician
Skin:	Wash skin with soap and water and consult physician if problem occurs/ Remove contaminated clothing
Inhalation:	Remove person to fresh air
Ingestion:	Give water to dilute and get medical attention
Notes to Physician:	Very low toxicity. Treat symptomatically.

Section 7 – Spill or Leak Procedures

Spill Response:	Absorb spill with inert materials (dry sand or earth) then place into a chemical waste container. Use proper personal protective Equipment, See Section 8
Neutralizing Chemicals:	Can be neutralized with sodium carbonate or bicarbonate
Waste Disposal Methods:	Dispose of in a manner consistent with federal, state and local regulations

Section 8 – Control Measures

Respiratory Protection:	Use NIOSH/MSHA approved respirator when dusts mists, or vapor s are present.
Ventilation Requirements:	Use adequate, general or local exhaust ventilation.
Eye Protection:	Chemical splash goggles
Protective Gloves:	Chemical resistant (e.g. rubber)
Other Protective Equipment:	Wear appropriate protective clothing to prevent skin exposure.

Section 9 – Special Precautions

Repair/ Maintenance of Contaminated Equipment: None required

Work/Hygienic Practices: Prevent eating, drinking, tobacco usage and cosmetic application to prevent exposure.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Keep from sources of ignition. Do not contaminate water, food, feed by storage or disposal. Follow good industrial hygiene practices, store between 40.5 F and 120.5 F.

OTHER PRECAUTIONS: Keep from children and animals. After working with this product, thoroughly clean equipment, wash thoroughly, change clothing and clean protective gear. Normal precautions common to good manufacturing practice should be followed.

The submission of this MSDS may be required by law but this is not an assertion that this substance is hazardous when used in accordance with proper safety practices and normal handling procedures.

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