



FA-20

20% Liquid Solution of Plant Derived Fulvic Acids MATERIAL SAFETY DATA SHEET

Section I: Chemical Product – Company Identification

Manufacturer: Kugler Company
Address: PO Box 1748
McCook, NE 69001
Telephone number: 308 345-2280
Effective Date: 04-02-12
Product: FA-20
Chemical Name: FULVIC ACID COMPLEX
Chemical Family: Proprietary
Formula: Amorphous Polymer
Synonyms: FULVIC ACID COMPLEX
CAS Number: SEE INGREDIENT STATEMENT, Section III
EPA Number: Not required
Physical State: Liquid

Section II: Physical Data

Boiling Point: 104 Degrees C.
Freezing Point: -2 Degrees F.
Spec. Gravity: 1.101
Vapor Pressure: 14.2 @20C
Vapor Density (Air = 1): 1.21 @ 20 C
pH (3% Soln.): 2.2
Solubility: 100% Soluble
Volatiles: 80 (water)
Evaporation: Normal 0.4 (water)
Melting Point: Not Applicable
Appearance: Amber liquid with slight odor

Section III: Hazardous Ingredients

Material	Percent	TLV	Hazard
None known			

Section IV: Health Hazard Data

Threshold Limit Values: OSHA PELV = none established
Minimize contact with eyes, skin, clothing, etc.
Carcinogen Listings NTP / IARC: Not listed as a carcinogen
Primary Route(s) of Entry: Skin contact, eye contact
Symptoms of Overexposure: Severe eye irritant, may cause pain & redness.
Skin irritant, may cause pain, redness & dermatitis
Conditions Aggravated by Exposure: None known
Irritancy of Material: See above
Sensitization to Material: None known
Teratogenicity: None known
Mutagenicity: None known
Reproductive Toxicity: None known
Synergistic Substances: None known
First Aid
Eyes: Immediately flush eyes with water for at least 15 min. while holding eyelids open.
Seek medical attention.
Skin: Immediately wash with soap and water.
Inhalation: Remove to fresh air. See doctor if effects occur.
Ingestion: Give water to dilute and get medical attention.
Notes to Physician: Very low toxicity. Treat symptomatically.

Section V: Fire and Explosion Hazard Data

Flash Point (method used): Not Applicable Auto Ignition Temp: Not applicable
 Flammable Limits in Air % by Volume: Lower: not applicable Upper: not applicable
 Extinguishing Media: None
 Special Fire Fighting Procedures: none
 Unusual Fire and Explosion Hazards: none

Section VI: Spill or Leak Procedures

Spill Response: Contain with dykes. Spilled material may be vacuumed or absorbed with inert material (i.e.; dry sand or earth) then place into a chemical waste container.
 Neutralizing Chemicals: Spill may be carefully neutralized with lime (calcium oxide), sodium carbonate or sodium bicarbonate.
 Waste Disposal Methods: Dispose of in compliance with governmental regulation.

Section VII: Reactivity Data

Stability: stable Conditions to Avoid: Contact with strong oxidizing agents
 Incompatibility: none Materials to Avoid: Strong oxidizing agents, strong caustics
 Hazardous Polymerization: Will not occur Conditions to Void: none
 Hazardous Decomposition Products: Sulfur dioxide, carbon dioxide, and carbon monoxide

Section VIII: Control Measures

Ventilation Requirements: Adequate ventilation for comfort is recommended
 Respiratory Protection: Normally not needed. Use NIOSH approved respirator when dusts, mists or vapors are present
 Protective Gloves: Wear appropriate protective gloves to prevent skin exposure
 Eye Protection: Wear eye protection; chemical safety goggles
 Other Protective Equipment: Wear appropriate clothing to prevent skin exposure. Clothing which contacts skin should be changed daily.

Section IX: Special Precautions

Repair/Maintenance of Contaminated Equipment: None required
 Hygiene in Handling & Storage: Wash thoroughly after handling. Personal hygiene is strongly encouraged so all clothing items are changed daily
 Other: Normal precautions common to good manufacturing practice should be followed

Keep out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals Do not contaminate water supplies, lakes, streams or ponds. Protect against physical damage. Store in cool, dry place separate from combustible, organic or other readily oxidizable materials. Avoid storage on wood floors. Immediately remove and dispose of any spilled material.

Section X: Additional Regulatory Concerns**Section XI: SHIPPING INFORMATION**

Shipping name: Not regulated by DOT, IATA, or IMO.
 Hazard Class: None
 Identification No: None
 Labels Required: None
 Placarding: None
 Freight Class: Class 55

Section XII: GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating: Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)
 Health: 1
 Fire: 0
 S.A.R.A. Title III Hazard Classification: (Yes/No)
 Immediate (Acute) Health: N
 Delayed (Chronic) Health: N
 Sudden Release of Pressure: N
 Fire: N
 Reactive: N

Mail Inquiries to Kugler Company
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 McCook, NE 69001-1748

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