



EnviroFloc CF-1

MATERIAL SAFETY DATA SHEET

Preparation date: October 24, 2011
Page 1 of 7

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS REVISION #: New

PRODUCT NAME: EnviroFloc CF-1
USE: Flocculant
DISTRIBUTED BY: Enviromine, Inc.
P.O. Box 11716
Charleston, WV 25339
PHONE NUMBERS: Business - (304) 541-6069
Fax - (888) 248-5302
ChemTrec - (800) 424-9300

SECTION 2 - HAZARDS IDENTIFICATION

***** **EMERGENCY OVERVIEW** *****

Caution! Product is a clear to slightly hazy liquid. It causes severe irritation to skin and eyes. Mists or vapors may cause irritation to the respiratory tract. Harmful if swallowed.

Avoid contact with skin, eyes and clothing. Wear protective goggles, gloves and impervious clothing when handling this product. Wash thoroughly after handling.

This product is considered hazardous under the OSHA HazCom Standard (29 CFR 1910.1200)

POTENTIAL HEALTH EFFECTS

LIKELY ROUTES OF EXPOSURE:

Eye and skin contact, inhalation

EYES:

Liquid causes severe irritation, which may result in permanent eye damage.

SKIN:

Causes severe irritation, even burns upon prolonged contact. Persons with pre-existing skin conditions are particularly susceptible.

INGESTION (swallowing):

Causes severe irritation to the mouth, throat and digestive tract.

Section 2 continued on next page



SECTION 2 - HAZARDS IDENTIFICATION (continued)

INHALATION (breathing):

Spray or mist can cause sore throat and irritation, which may be severe.

CHRONIC EFFECTS/CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the current NTP Report on Carcinogens or the ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>%</u>	<u>CAS No.</u>
Polyaluminum hydroxychlorosulfate	15-40	Proprietary
Water	60-85	7732-18-5

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. Do not use chemical antidote.

SKIN CONTACT:

Immediately flush exposed area with water for at least 15 minutes, then wash with soap and water. If reddening persists, or if open sores or blisters develop, see a physician. Remove contaminated clothing and launder before re-use.

INGESTION (swallowing):

If conscious, immediately give two large glasses of milk, if available, or water. Never give anything by mouth to an unconscious person. Do **not** induce vomiting; vomiting may further damage the mouth and throat. Call a physician.

INHALATION (breathing):

Immediately move to fresh air. If breathing has stopped, give artificial respiration. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

This product contains a large amount of water, and would not normally burn.

EXTINGUISHING MEDIA:

Use water fog, foam, dry chemical or carbon dioxide as appropriate for other materials involved in the fire.

PROTECTION OF FIREFIGHTERS:

Keep personnel removed from and upwind. Vapors are corrosive. Wear full protective clothing and self-contained breathing apparatus with full face-piece. Cool containers with water. Combustion products include aluminum compounds, hydrogen chloride and sulfur compounds.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite, floor absorbent or other non-combustible absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation. Do not store in steel, aluminum, copper or brass containers.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Polyaluminum
hydroxychlorosulfate

OSHA PEL (as Al) - 15 mg/M³ (total dust)
5 mg/M³ (respirable)

ACGIH TLV (as Al) - 2 mg/M³ (soluble salts)

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure and established exposure limits. Maintain eye wash fountains and quick-drench facilities in work area.

EYE / FACE PROTECTION:

Chemical splash goggles and full face-shield, in compliance with OSHA regulations, are advised.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or Buna-N. Impervious clothing and boots are recommended. Leather shoes and boots cannot be decontaminated if soaked with liquid material.

RESPIRATORY PROTECTION:

Not required under normal conditions of use; however, a NIOSH/MSHA approved respirator is recommended where there is insufficient ventilation to maintain exposures below established exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear to slightly hazy liquid @
68° F (20° C)

Odor: Little or no odor

Specific Gravity: ~1.21 @ 77° F (25° C)

Evaporation Rate: Slower
(Ethyl Ether = 1)

Solubility in Water: 100%

Vapor Pressure: 17.5 @ 68° F (20° C)
(water)

Initial Boiling Point: ~220° F (104° C)

Volatile %: >60

pH: 2.5-4.5 (as is)

Flash Point: >212° F (100° C) PMCC

Upper Explosion Limit: Unavailable

Lower Explosion Limit: Unavailable

Autoignition Temperature: Unavailable

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):

Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):

Avoid contact with oxidizers and strong bases

DECOMPOSITION:

Decomposition can produce aluminum, sulfur compounds and hydrogen chloride.

HAZARDOUS POLYMERIZATION:

Not known to occur

SECTION 11 - TOXICOLOGICAL INFORMATION

InVitro DOT Skin Corrosive Study – Not corrosive

SECTION 12 - ECOLOGICAL INFORMATION

Acute toxicity

48-hr. LC₅₀ (*ceriodaphnia dubia* or water flea) – 137.1 mg/L

96-hr. LC₅₀ (*Pimephales promelus* or fathead minnow) – 34.9 mg/L

Chronic toxicity

3-Brood Survival and Reproduction Test (*ceriodaphnia dubia* or water flea)

NOEC – 100 mg/L; LOEC – 500 mg/L

7-day Larval Survival and Growth Test (*Pimephales promelus* or fathead minnow)

NOEC – 10 mg/L; LOEC – 100 mg/L

NOEC – No Observable Effect Concentration

LOEC – Lowest Observable Effect Concentration

SECTION 13 - DISPOSAL CONSIDERATIONS

Material that cannot be recovered or recycled should be sent to an approved hazardous waste disposal facility for neutralization and disposal. Material collected on absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

This material is corrosive to aluminum or steel only. It is **NOT** subject to packaging, labeling, placarding or shipping paper requirements, or any other part of the DOT hazardous materials regulations when shipped by motor vehicle or rail only in packaging compatible with the product [49CFR173.154(d)].

If not shipped in accordance with the above, or if shipped by other modes of transportation, the DOT, IMO (water) and ICAO (air) shipping description is:

UN 3264, Corrosive liquid, acidic, inorganic, N.O.S. (contains polyaluminum hydroxychlorosulfate), 8 (corrosive), PG III

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None



EnviroFloc CF-1

MATERIAL SAFETY DATA SHEET

Preparation date: October 24, 2011
Page 7 of 7

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH	2	0 - LEAST
FIRE	0	1 - SLIGHT
REACTIVITY	0	2 - MODERATE
OTHER	-	3 - HIGH
		4 - EXTREME

HAZARD RATING METHOD: NFPA

REASON FOR REVISION:

New MSDS

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of use of this information or the product to which it relates. Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.

END OF REPORT