CHEMSTREAM
WATER TREATMENT AND DUST SUPPRESSION SOLUTIONS

Safety Data Sheet
EnviroFloc CF-1

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SDS REVISION #:02

PRODUCT IDENTIFIER: EnviroFloc CF-1

OTHER IDENTIFIERS: Polyaluminum hydroxychlorosulfate

CHEMICAL FORMULA: N/A

RELEVANT USES: Water treatment chemical

DISTRIBUTED BY: Chemstream, Inc.
511 Railroad Ave
Homer City, PA 15748

PHONE NUMBERS: Business – (724) 915-8388 (business hours)
CHEMTREC - (800) 424-9300 (transportation emergencies)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION
Skin irritant (Category 2)
Serious eye damage (Category 1)
Corrosive to metals (Category 1)

SIGNAL WORD
Danger!

HAZARD STATEMENTS
Causes skin irritation and serious eye damage. May be corrosive to some metals

PRECAUTIONARY STATEMENTS

Prevention
Wear protective gloves and eye and face protection. Wash exposed areas thoroughly after handling. Keep only in original container.

Response
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician. If on skin: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If irritation occurs: get medical attention. Absorb spillage to prevent material damage.

Storage
Store in corrosive resistant container with a resistant inner liner.

Disposal
Not applicable

HAZARDS NOT OTHERWISE CLASSIFIED
None

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Component	%	CAS No.
Water	60-85	7732-18-5
Polyaluminum hydroxychlorosulfate	15-40	1327-41-9

SECTION 4 - FIRST AID MEASURES

IN CASE OF EYE CONTACT
Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses, if present and easy to do. Get immediate medical attention. Do not use chemical antidote.

IN CASE OF SKIN CONTACT
Immediately flush exposed area with water for at least 15 minutes, and 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.

IF SWALLOWED
Immediately rinse mouth with water. If conscious, give two large glasses of milk, if available, or water. Never give anything by mouth to an unconscious person. Call a physician.

IF INHALED
Move to fresh air. If breathing has stopped, give artificial respiration. Get immediate medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS
Contact with eyes can cause severe, permanent damage.

NOTE TO PHYSICIAN
Treat symptomatically

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.

NFPA: Health: 1; Flammability: 0; Reactivity: 0

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed.

CONTAINMENT & CLEAN-UP

Dike area of spill to prevent spreading and pump liquid to salvage tank. 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 (CAS# 1327-41-9)	OSHA PEL - 15 mg/M^3 (as Al) 5 mg/M^3 (total dust) ACGIH TLV - 2 mg/M^3 (as Al soluble salts) NIOSH REL - 2 mg/M^3 (as Al)

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/or full face-shield, in compliance with OSHA regulations, are advised.

SKIN PROTECTION

Wear protective gloves such as Neoprene or Buna-N and normal work clothing covering arms and legs. 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
pH:	2.5-4.5 (as is)
Freeze Point:	<-10 F (-23° C)
Initial Boiling Point:	>220° F (104° C)
Flash Point:	>212° F (100° C) PMCC
Evaporation Rate:	Slower (Ethyl Ether = 1)
Upper Explosion Limit:	Unavailable
Lower Explosion Limit:	Unavailable
Vapor Pressure:	17.5 @ 68° F (20° C) (water)
Vapor Density:	Lighter than air
Relative Density:	>1.2 @77° F (25° C)
Solubility in Water:	100%
Volatile %:	>60
VOC %:	nil
Autoignition Temperature:	Unavailable
Decomposition Temperature:	Unavailable

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY

Reacts with metals, such as steel, aluminum, copper and brass.

STABILITY (conditions to avoid)

Stable under normal conditions of 70° F (21° C) and 14.7 psig (760 mm Hg).

POSSIBILITY OF HAZARDOUS REACTIONS

Contact with strong alkalis or oxidizers may result in a violent reaction.

CONDITIONS TO AVOID

Avoid temperatures above 100°F (38°C)

INCOMPATIBILE MATERIALS

Avoid contact with metals, such as steel, aluminum, copper and brass, strong bases and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS

Not anticipated under normal conditions of use.

DECOMPOSITION

Decomposition can produce aluminum, sulfur compounds and hydrogen chloride.

SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

Skin and eye contact and inhalation

SYMPTOMS

Eyes: Symptoms include pain and irritation.
Skin: Symptoms include redness and irritation.
Swallowing: Symptoms include irritation of the mouth, throat and esophagus

EFFECTS FROM EXPOSURE

Immediate: Material can cause severe irritation. In severe cases, of eye contact, ulceration and permanent blindness may occur.
Delayed: Prolonged or repeated inhalation of vapors, spray or mist, in excess of the established exposure limit, may cause pulmonary edema.
Chronic: Unavailable

TOXICITY DATA

InVitro DOT Skin Corrosive Study – Not corrosive

CARCINOGENICITY

This product is not reported to have any carcinogenic effects. This product (or components) is not listed in IARC Monographs, the current NTP Report on Carcinogens or the current ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY

Acute toxicity

48-hr. LC_{50} (*ceriodaphnia dubia* or water flea) – 137.1 mg/L
96-hr. LC_{50} (*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

PERSISTENCE AND BIODEGRADABILITY
Does not biodegrade

BIOACCUMULATIVE POTENTIAL
No data available

MOBILITY IN SOIL
No data available

OTHER ADVERSE EFFECTS
No data available

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 U.S. DOT, TDG (Canadian), IMO (water) and ICAO (air) shipping description is:

UN Number:	UN 3264
Shipping Name:	Corrosive liquids, acidic, inorganic, N.O.S.
Technical Desc:	(polyaluminum hydroxychlorosulfate)
Class:	8, (corrosive)
Packing Group:	III
RQ (product):	None

Label :

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION

All components in this product are in compliance with TSCA Inventory requirements or exempt from reporting.

CEPA

All components in this product are listed on the Canadian Domestic Substances List (DSL).

SARA

CERCLA/SARA 302: None
CERCLA/SARA 311/312: Acute
CERCLA/SARA 313: None

SECTION 16 - OTHER INFORMATION

PREPARATION DATE: May 13, 2014
REVISION DATE: January 23, 2017
REASON FOR REVISION: Updated Supplier Address

END OF REPORT