**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

SDS REVISION #: 1

PRODUCT IDENTIFIER: LiquiFloc 4816

OTHER IDENTIFIERS: N/A

CHEMICAL FORMULA: N/A

RELEVANT USES: Water treatment chemical

DISTRIBUTED BY: Chemstream, Inc.
166 Commerce Drive
Stoystown, PA 15563

PHONE NUMBERS: Business – (814) 629-7118 (business hours)
CHEMTREC - (800) 424-9300 (transportation emergencies)

SECTION 2 - HAZARDS IDENTIFICATION**GHS CLASSIFICATION**

Skin irritant (Category 2)

SIGNAL WORD

Warning

HAZARD STATEMENTS

H315: Causes skin irritation

PRECAUTIONARY STATEMENTS**Prevention**

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection

Response

P302 + P352: IF ON SKIN: Wash with plenty of soap and water

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing.

Disposal

P501: Dispose of contents/container as special waste in compliance with local and national regulations

HAZARDS NOT OTHERWISE CLASSIFIED

Advice: Solutions extremely slippery when spilled

Inhalation: Avoid breathing vapors or mist

Skin: Causes skin irritation





Eyes: May cause eye irritation
Ingestion: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS**SUBSTANCES/MIXTURES**

Anionic polyacrylamide in water-in-oil emulsion

Component	%	CAS No.
Distillates (petroleum), hydrotreated light	22-25	64742-47-8
Alcohols, C12-16, ethoxylated	0-3.6%	68551-12-2
Alcohols, C12-C14, ethoxylated	0-3.6	68439-50-9
Alcohols, C10-16, ethoxylated	0-3.6	68002-97-1
(Z)-Octadec-9-enylamine, ethoxylated	1.2-1.6	26635-93-8
Ammonium Acetate	2-10	631-61-8

Components listed above that have a zero minimum and a common maximum range are interchangeably used components based on availability. Only one of these components is contained in the product up to the maximum amount noted.

FURTHER INFORMATION

Ammonium acetate is not a GHS hazardous component in this product. It is listed because Ammonium Acetate is an EPA Reportable Quantity (RQ) spill hazard substance. See section 14 and 15.

SECTION 4 - FIRST AID MEASURES**GENERAL ADVICE**

Show this safety data sheet to the doctor in attendance

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.

IN CASE OF SKIN CONTACT

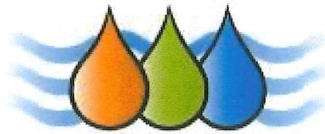
Immediately flush exposed area with water for at least 15 minutes, and then wash with soap and water. Remove contaminated clothing and launder before re-use. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

IF SWALLOWED

Call a poison control center or doctor immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

IF INHALED

Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

**SECTION 5 - FIRE FIGHTING MEASURES****EXTINGUISHING MEDIA**

Water spray, dry chemical, carbon dioxide

UNSUITABLE EXTINGUISHING MEDIA

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No information available

PROTECTION OF FIREFIGHTERS

Wear self-contained breathing apparatus. Use NIOSH/MSHA approved respiratory protection

FURTHER INFORMATION

In the event of fire, cool tanks with water spray

SECTION 6 - ACCIDENTAL RELEASE MEASURES**PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES**

Where the exposure level is not known, wear approved, positive pressure, self-contained respirator. Where the exposure level is known, wear approved respirator suitable for the level of exposure. For personal protection see section 8. Wear chemical resistant boot.

ENVIRONMENTAL PRECAUTIONS

Do not flush into surface water or sanitary sewer system.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

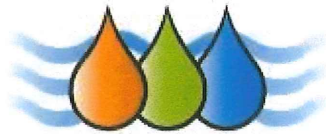
Sweep up to prevent slipping hazard. Soak up with inert absorbent material. Shovel into suitable container for disposal. After cleaning, flush away traces with water. Use detergent if needed.

SECTION 7 - HANDLING AND STORAGE**HANDLING**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE

Do not freeze. Store at room temperature in the original container. To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Store at a temperature less than 89.6 °F.

**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION****EXPOSURE GUIDELINES**Distillates (petroleum), hydrotreated light
(CAS# 64742-47-8)TWA - 200 mg/m³**ENGINEERING CONTROLS**

Avoid contact with skin and eyes. Do not breath vapors or aerosols. Do not eat, drink or smoke when using this product. Ensure that eyewash stations and safety showers are close the workstation location. Ensure adequate ventilation. Keep away from tobacco products. Keep away from food and drink. Wash hands before breaks and immediately after handling product.

EYE / FACE PROTECTION

Tightly fitting safety goggles.

SKIN PROTECTION

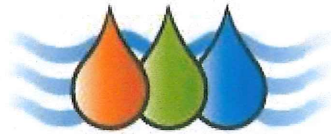
Where impervious gloves. please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion and the contact time. Wear chemical resistant protective clothing. Chemical resistant boots

RESPIRATORY PROTECTION

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposure exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. Where respiratory protection is required based on use and conditions, NIOSH approved respirators should be used.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	viscous liquid, white
Odor:	hydrocarbon light
pH:	6-8
Freeze Point:	-4° C
Initial Boiling Point:	No data available
Flash Point:	>215.6° F PMCC
Evaporation Rate:	Similar to water
Upper Explosion Limit:	Unavailable
Lower Explosion Limit:	Unavailable
Vapor Pressure:	Unavailable
Vapor Density:	Similar to water
Relative Density:	1.03-1.06
Solubility in Water:	Limited by viscosity



Volatile %:	>60
VOC %:	nil
Autoignition Temperature:	Unavailable
Decomposition Temperature:	Unavailable
Viscosity, Kinematic	> 20.5 mm ² /s

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY**STABILITY (conditions to avoid)**

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

POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous polymerization does not occur

CONDITIONS TO AVOID

Stable under normal conditions

INCOMPATIBLE MATERIALS

No specific hazards

HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of nitrogen, ammonia, sulfur oxides, carbon dioxide, carbon monoxide

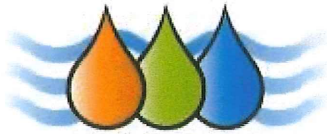
DECOMPOSITION

No data available

SECTION 11 - TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute oral toxicity	Remarks: estimated LD50 Rat >5,000 mg/kg
Acute oral toxicity	Distillates (petroleum), hydrotreated light: LD50 Rat >5,000 mg/kg
Acute inhalation toxicity	Remarks: estimated LC50 Rat, 4 hour, > 20 mg/L
Acute inhalation toxicity	Distillates (petroleum), hydrotreated light: LC50 Rat, 4 hour, 5.2 mg/L
Acute dermal toxicity	Remarks: estimated LD50 Rabbit, > 2,000 mg/kg
Acute dermal toxicity	Distillates (petroleum), hydrotreated light: LD50 Rabbit, >2,000 mg/kg
Skin corrosion/irritation	Remarks: information given is based on data obtained from similar substances. Conclusion: irritating to skin.
Serious eye damage/eye irritation	Result: may cause eye irritation. Conclusion: not classified as irritating for eyes.
Skin sensitisation	Conclusion: not sensitizing
Skin sensitization	Distillates (petroleum), hydrotreated light: Conclusion – this substance is not classified as a sensitizer

Genotoxicity in vitro
CarcinogenicityAmes test conclusion: no data available
Distillates (petroleum), hydrotreated light: Not classified by
IARC or NTP.**SECTION 12 - ECOLOGICAL INFORMATION****AQUATIC TOXICITY**

Ecotoxicological information provided is based on a structurally or compositionally similar product. This material is not classified as dangerous for the environment.

Acute toxicity48-hr. EC₅₀ (*daphnia magna* or water flea)/OECD Test Guideline 202
– 137.1 mg/L96-hr. LC₅₀ (*Branchydanio rerio* or zebra fish)/Immobilization/OECD Test
Guideline 203 – 34.9 mg/L72-hr. IC₅₀ (*Selenastrum capricornutum* or green algae)/Growth inhibition/OECD
Test Guideline 201: - 100 mg/L

The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

TOXICITY TO OTHER ORGANISMS

No data available

PERSISTENCE AND BIODEGRADABILITY

Biological degradability: Modified Sturm Test/OECD Test Guideline 301B: Not readily biodegradable.

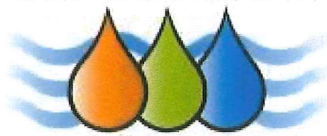
BIOACCUMULATIVE POTENTIAL

Bioaccumulation is unlikely because of the high molecular weight of the polymer; diffusion through biological membranes is very small.

Partition coefficient: n-octanol/water: Not applicable

MOBILITY IN SOILWater solubility: limited by viscosity
Surface tension: not determined**OTHER ADVERSE EFFECTS**

No data available

**SECTION 13 - DISPOSAL CONSIDERATIONS****PRODUCT**

Recycling, recovery and reuse of materials is recommended if permitted by regulations. If recycling is not practicable, dispose of in compliance with local regulations. Incineration is recommended

EPA Hazardous Waste – No

CONTAMINATED PACKAGING

Dispose of in compliance with local and national regulations.

SECTION 14 - TRANSPORT INFORMATION

UN Number: UN 3082

Land Transport**DOT**

Description of Goods: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID

Shipping Name: N.O.S. (Ammonium Acetate)

Class: 9

Packing Group: III

DOT Labels: 9

RQ (product): Ammonium acetate. Hazardous substances/RQ – DOT requirements specific to Hazardous Substances only apply if the quantity in one package equals or exceeds the reportable quantity.

Sea Transport Not classified as dangerous in the meaning of transport regulations

Air Transport Not classified as dangerous in the meaning of transport regulations

Special Precautions for User

DOT/CFR: Product contains US EPA CERCLA and CWA Hazardous Substance: Ammonium Acetate (CAS# 631-61-8) having a Reportable Quantity (RQ) of 5000 pounds; (refer to SDS section 3 for amount in product to determine if spilled quantity of product exceeds the Reportable Quantity (RQ) triggering EPA Spill Incident Notification). Hazardous Substances/Reportable Quantities – DOT requirements specific to Hazardous Substances only apply if the quantity in one package equals or exceeds the reportable quantity.

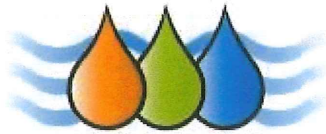
SECTION 15 - REGULATORY INFORMATION**SARA TITLE III SECTION 311 CATEGORIES**

Immediate (Acute) Health Effects: Yes

Delated (Chronic) Health Effects: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No



Reactivity Hazard: No

US EPA EMERGENCY PLANNING AND RIGHT TO KNOW ACT SARA TITLE III SECTION 313
TOXIC CHEMICALS (40 CFR 372.65) – SUPPLIER NOTIFICATION REQUIRED

While this product does not contain any component CAS numbers directly listed under SARA 313 of the Emergency Planning and Community Right to Know Act of 1986 (EPCRA), it does contain ammonia chemical(s) that may be sources per EPA of aqueous ammonia, a reportable chemical. For our customer's use evaluation for reporting purposes we have listed these source chemical(s) below with their quantities when present at >1%. Please refer to EPA Guidance for Reporting Aqueous Ammonia, EPA 745-R-00-005.

Ammonium Acetate (631-61-8)
CERCLA hazardous substances. 40 CFR Part 302. May be subject to emergency release notification under SARA Title III.

CERCLA HAZARDOUS SUBSTANCE (REPORTABLE QUANTITIES)

Ammonium Acetate (631-61-8) = 5,000 lb

CALIFORNIA PROPOSITION 65

Acrylamide (7906-1) = < 0.01%

Remarks: this product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

OTHER REGULATIONS

None

NOTIFICATION STATUS

- All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
- All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory
- All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).
- All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).
- All components of this product are NOT included on the Japanese (ENCS) inventory
- All components of this product are NOT included on the Korean (ECL) inventory
- All components of this product are NOT included on the Phillipine (PICCS) inventory
- All components of this product are NOT included on the Japanese (ENCS) inventory

SECTION 16 - OTHER INFORMATION

HMIS RATING

Health: 2

Flammability: 1

Reactivity: 0

CHEMSTREAM



**WATER TREATMENT AND DUST
SUPPRESSION SOLUTIONS**

**LiquiFloc 4816
Safety Data Sheet**

Preparation date: June 2, 2016
Revised: N/A
Page 9 of 9

NFPA RATING

Health: 2
Fire: 1
Reactivity: 0

PREPARATION DATE: June 2, 2016

REVISION DATE: N/A

REASON FOR REVISION: N/A

The product information contained herein is believed to be accurate as of the date of the 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.
