Price Agreement Award

C249054 Polydyne Inc.

APPROVED by the Trustees and signed by the Chairman of the Oklahoma City Water Utilities Trust this 26TH day of MARCH , 2024.

ATTEST: **OKLAHOMA CITY WATER UTILITIES TRUST**

ASST. SECRETARY CHAIRMAN

CONCURRED by the Council and signed by the Mayor of The City of Oklahoma City this 9TH day of APRIL, 2024.

ATTEST: **THE CITY OF OKLAHOMA CITY**

CITY CLERK MAYOR

REVIEWED for form and legality.

Assistant Municipal Counselor

C249054

Supplier: **Polydyne Inc.**

BID/PRICING AGREEMENT/CONTRACT FORM & NON-DISCRIMINATION STATEMENT

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING IN THE ELECTRONIC BID SYSTEM

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

THIS DOCUMENT MUST BE ELECTRONICALLY SIGNED AND SUBMITTED WITH THE BID OR THE BID WILL BE REJECTED

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INSTRUCTIONS: This document MUST be electronically signed and submitted with the bid for the bid to be valid. Failure to electronically sign the this document prior to submitting the electronic bid will result in rejection of your bid. This document constitutes your bid and will be the Pricing Agreement/Contract document under which you are to perform, should your bid be accepted, so it must be properly and completely executed. It is, therefore, essential that you are aware of its terms, as well as those contained in the specifications.

Submit this electronically signed document, along with all accompanying documents:

THIS PRICING AGREEMENT/CONTRACT is made and entered into, by and between **Polydyne Inc.** hereinafter referred to as "Bidder" and The City of Oklahoma City, a municipal corporation, or a participating Public Trust of which The City of Oklahoma City is Beneficiary hereinafter referred to as the "Contracting Entity."

WITNESSETH:

WHEREAS, the governing body of the Contracting Entity has approved certain specifications and requested by notice that bids be submitted thereon; and

WHEREAS, this document until executed by the Mayor/Chairman of the Contracting Entity constitutes the Bidder's proposal; and

NOW, THEREFORE, that in consideration of the covenants, agreements and representations as hereinafter set forth, it is mutually agreed by the parties that:

1. The Bidder agrees to sell and deliver to the Contracting Entity, the items of material and/or services, specified in the pricing section of the electronic bid submittal, which is attached hereto and made a part of this Pricing Agreement/Contract. List the prompt payment discount, if any, for this agreement in the space provided below:

Discount for Prompt Payment **Zero** % **30** Days

2. The Bidder expressly warrants that all articles, material, and/or work covered in this Pricing Agreement/Contract will conform to the specifications and electronic bid documents attached to this bid and are hereby incorporated, as if set forth in full herein; and further warrants that the same shall be of good material and workmanship, and free from defects.

3. The Bidder understands that all bids are to be submitted in U.S. dollars at a firm price. Bids submitted in any currency other than U.S. dollars will be rejected.

4. The Bidder also understands that all invoices shall be submitted in U.S. dollars and agrees to accept payment in U.S. dollars as full satisfaction of the invoiced amount.

5. If any of the goods fail to meet the warranties contained in Paragraph 2, above, the Bidder, upon notice from the Contracting Entity, shall promptly correct or replace the same at the Bidder's expense. If the Bidder shall fail to so do, the Contracting Entity may cancel this order as to all such goods, and in addition, may cancel the then remaining balance of this order. After notice to the Bidder, all such goods will be held

at the Bidder's risk. The Contracting Entity may, at the Bidder's direction, make available such goods to be returned to the Bidder at the Bidder's risk, and all transportation charges, both to and from the original destination, shall be paid by the Bidder. Any payment for such goods shall be refunded by the Bidder unless the Bidder promptly corrects or replaces the same at the Bidder's expense.

6. The Contracting Entity agrees to pay to the Bidder the price and amount in accordance with Paragraph 1 above, based on the quantity actually purchased, upon delivery to and acceptance by the Contracting Entity, of the material and/or service[s] above described and upon the filing by the Bidder, and approval by the Contracting Entity, of a verified claim for the amount due.

7. The Bidder agrees, in connection with the performance of work under this Pricing Agreement/Contract:

a. That the Bidder will not discriminate against any employee or applicant for employment, because of race, creed, color, sex, age, national origin, ancestry or disability. The Bidder shall take affirmative action to ensure that employees are treated without regard to their race, creed, color, age, national origin, sex, ancestry or disability. Such actions shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment, advertising, lay-off, termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Bidder agrees to post, in a conspicuous place available to employees and applicants for employment, notices to be provided by the City Clerk/Secretary of the Contracting Entity setting forth the provisions of this section, and;

b. That the Bidder agrees to include this non-discrimination clause in any subcontracts connected with the performance of this Pricing Agreement/Contract.

8. In the event of the Bidder's non-compliance with the above non-discrimination clause, this Pricing Agreement/Contract may be canceled or terminated by the Contracting Entity. The Bidder may be declared by the Contracting Entity ineligible for further Pricing Agreement[s]/Contract[s] with the Contracting Entity until satisfactory proof of intent to comply is made by the Bidder.

9. The risk of loss or damage shall be borne by the Bidder at all times until the acceptance of goods, properly packed, by the Contracting Entity.

10. This Pricing Agreement/Contract, specifications, electronic bid submittal documents and any attachments constitutes the entire understanding and agreement of the parties upon the subject matter hereof. There is no agreement, oral or otherwise, which is not contained in or attached to this Pricing Agreement/Contract. This Pricing Agreement/Contract may not be modified or assigned unless approved in writing and signed by both parties.

11. The parties assume and understand that the variables in the Bidder's cost of performance may fluctuate; consequently, the parties agree that any fluctuations in the Bidder's costs will not alter the Bidder's obligations under this Pricing Agreement/Contract nor excuse performance or delay on the Bidder's part.

12. This Pricing Agreement/Contract shall be inoperative during such period of time that the aforesaid delivery or acceptance may be rendered impossible by reason of fire, Act of God or government regulation. Provided, however, to the extent that the Bidder has any commercially reasonable alternative method of performing this Pricing Agreement/Contract by purchase on the market or otherwise, the Bidder shall not be freed of any obligations hereunder by this clause, even though the goods intended for this Pricing Agreement/Contract were destroyed or their delivery delayed because of an event described above.

13. The shipping or receiving of any goods under this Pricing Agreement/Contract shall not be deemed, or be, a waiver of any right to damages for any prior failure to ship or receive any goods.

14. This Pricing Agreement/Contract shall be governed by the laws of the State of Oklahoma.

15. The Bidder shall be responsible for complying with all applicable federal, state and local laws.

16. If submitting a bid for services, the Bidder certifies that they, and any proposed subcontractors, are in compliance with 25 O.S. §1313 and participate in the status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employment Verification Program (E-Verify) through the Department of Homeland Security and available at www.dhs.gov/E-Verify.

The undersigned individual states that the Bidder will be bound by all components of its bid, the specification, the terms and conditions of the Pricing Agreement/Contract, and the requirements for Bidders.

WITNESS the hands of the parties hereto:

THIS FORM MUST BE ELECTRONICALLY SIGNED AND SUBMITTED WITH THE BID FOR THE BID TO BE VALID

Note: The owner or an officer of the business or corporation may sign this document. A Corporate Seal or a letter of authorization is needed for any other signer. For instance, if a Salesman or Manager signs this form, a letter of authorization or Corporate Seal is to be attached.

Boyd Stanley
Type Name of Authorized Agent

Sr. Vice-President
Title of Authorized Agent

Polydyne Inc., One Chemical Plant Road, Riceboro, GA **31323**
Company Name and Address Zip Code

PH: 800-848-7659 Option 2 : Fax: 912-880-2078
Telephone Number and Fax Number if any

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

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NON-COLLUSION AFFIDAVIT

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING BID

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

The undersigned, of lawful age, being duly sworn, upon oath, deposes and says: That the undersigned has the lawful authority to execute the within and foregoing proposal/bid for, and on behalf of, the Proposer/Bidder; that the Proposer/Bidder has not, directly or indirectly, entered into any agreement, express or implied, with any Proposer/Bidder, having for its object the controlling of the price or amount of such proposal/bid, the limiting of the proposals/bids or the Proposers/Bidders, the parceling or farming out to any Proposer/Bidder or other persons, of any part of the Agreement or any part of the subject matter of the proposal/bid, or of the profits thereof, and that Proposer/Bidder has not and will not divulge the sealed proposal/bid to any person whomsoever, except those having a partnership or other financial interest with the Proposer/Bidder in the said proposal/bid, until after the said sealed proposals/bids are opened.

The undersigned further states that the Proposer/Bidder has not been a party to any collusion: among Proposer/Bidders in restraint of freedom of competition, by any agreement to bid at a fixed price or to refrain from proposing; or with any City/Trust official, City/Trust employee or City/Trust agent as to the quantity, quality, or price in the prospective Agreement, or any other terms of the said prospective Agreement; or in any discussions between the Proposers/Bidders or City/Trust official, City/Trust employee or City/Trust agent concerning the exchange of money or other thing of value for special consideration in the letting of Agreement. The Proposer/Bidder states that it has not paid, given or donated or agreed to pay, give or donate to any City/Trust official, officer or employee of the City or awarding agency, any money or other thing of value, either directly or indirectly, in the procuring of the award of Agreement pursuant to this Proposal/Bid.

Witness the hands of the parties hereto:

The undersigned states that the Proposer/Bidder will be bound by its proposal/bid, the specification, the terms and conditions of the Agreement, and the Requirements for Proposer/Bidders.

➔ ➔THIS FORM TO BE COMPLETED BY THE PROPOSER/BIDDER PRIOR TO AGREEMENT APPROVAL🡐 🡐

Boyd Stanley
Type Name of Authorized Agent/Representative

Sr. Vice-President
Title

Polydyne Inc.
Company Name

One Chemical Plant Rd., Riceboro, GA
Address

31323
Zip Code

(800) 848-7659 Option 2
Telephone Number and Fax Number, if any

TO BE COMPLETED BY THE NOTARY:

State of * Georgia)
) SSS

County of * Liberty)

[*State and County where notarized must be typed in for bid/proposal to be considered.][SAK1]

Signed and sworn to before me on this 20th [Day] day of February [Month], 2024 [Year] by Boyd Stanley [Print the name of the agent/representative who signed above.]

My Commission Number: N/A [Oklahoma]

Rebecca Beasley
Type Name of Notary Public

My Commission Expires: December 17, 2022 [Date/Year]

My Commission Expires
December 17, 2026

REBECCA BEASLEY NOTARY PUBLIC Comm. Exp. 12/17/26 LIBERTY COUNTY, GA

[49 Okla. Stat. 2011 §119]

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING BID

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Supplier: **Polydyne Inc.**

BIDDER MUST ELECTRONICALLY COMPLETE THIS FORM PRIOR TO SUBMITTING BID

SUPPLIER CONTACT INFORMATION

The purpose of this form is to assist various City Departments and Trusts with placing orders.

Sales Contact:

Company Name:	**Polydyne Inc.**		
Address:	**One Chemical Plant Road, Riceboro, GA 31323**		
Contact Person:	**Steve Kuenneth**	Email Address:	**PolyBidDpt@snfhc.com**
Telephone Number:	**816-518-3275**	Fax Number:	**912-880-2078**

Billing Contact:

Company Name:	**Polydyne Inc.**		
Address:	**One Chemical Plant Road, Riceboro, GA 31323**		
Contact Person:	**Amy Walter**	Email Address:	**polyBidDpt@snfhc.com**
Telephone Number:	**912.884.8741**	Fax Number:	**912-880-2078**

Service Contact:

Company Name:	**Polydyne Inc.**		
Address:	**One Chemical Plant Road, Riceboro, GA 31323**		
Contact Person:	**Steve Kuenneth**	Email Address:	**PolyBidDpt@snfhc.com**
Telephone Number:	**816-518-3275**	Fax Number:	**912-880-2078**

After Hours Emergency Number(s) **800-848-7659**

After Hours Emergency Number(s) **816-518-3275**

After Hours Emergency Number(s)

After Hours Emergency Number(s)

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/8/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

EPIC Insurance Brokers & Consultants
1140 Avenue of the Americas – 8th Floor
New York, NY 10036

CONTACT NAME: Andrea Kim
PHONE (A/C, No, Ext): 212.293-6203 **FAX (A/C, No):** 212.488.0220
E-MAIL ADDRESS: andrea.kim@epicbrokers.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: IRONSHORE SPECIALTY INSURANCE COMPANY	25445
INSURER B: HARTFORD FIRE INSURANCE COMPANY	19682
INSURER C: HARTFORD ACCIDENT AND INDEMNITY COMPANY	22357
INSURER D:	
INSURER E:	
INSURER F:	

INSURED

Polydyne Inc.
One Chemical Plant Road
PO Box 250
Riceboro GA 31323

COVERAGES **CERTIFICATE NUMBER:** C249054 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY ☐ PRO-JECT ☐ LOC OTHER:	Y		IEPICB5ZFB004	12/31/2023	12/31/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$1,000,000 $500,000 $25,000 $1,000,000 $2,000,000 $2,000,000 $
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS ☐ SCHEDULED AUTOS X HIRED AUTOS ☒ NON-OWNED AUTOS	Y		10ABR30602	12/31/2023	12/31/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $ $
A	UMBRELLA LIAB ☒ OCCUR X EXCESS LIAB ☐ CLAIMS-MADE DED RETENTION $			IEELCASB5ZFD004	12/31/2023	12/31/2024	EACH OCCURRENCE AGGREGATE	$5,000,000 $5,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N ☐ (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		10WNR30600	12/31/2023	12/31/2024	X PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The City of Oklahoma City and The Oklahoma City Water Utilities Trust are included as Additional Insureds where required by written contract per terms and conditions of the above referenced policies.
RE: OCWUT 19-24 for Coagulants and Aids for Water Treatment Plants
30 DAY CANCELLATION CLAUSE INCLUDED

CERTIFICATE HOLDER

The City of Oklahoma City and
The Oklahoma City Water Utilities Trust
420 W. Main, Ste. 500
Oklahoma City, OK 73102

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE 1

Andrea Kim

Supplier: **Polydyne Inc.**

COAGULANTS AND AIDS FOR WATER TREATMENT PLANTS BID FORM A OCWUT 19-24 REQUIRED ONLY IF BIDDING FERRIC SULFATE

SPECIFICATIONS	BIDDER'S RESPONSE
1. ANSI/NSF Standard 60?	☐ Yes ☑ No
2. Standard Specifications AWWA B-406-06?	☐ Yes ☑ No
3. Please provide the Manufacturer and Brand Name:	**Polydyne Inc. is not bidding Ferric Sulfate.**
4. Manufactured using? Virgin Iron Ore	☐ Yes ☑ No
5. Free Acid as H_2SO_4 (to maintain pH 2 solution)? Maximum 4.5% as H_2SO_4	**Polydyne Inc. is not bidding Ferric Sulfate.** % Max
6. Water Soluble Ferric Iron expressed as Fe+++? Minimum 12.0%	**Polydyne Inc. is not bidding Ferric Sulfate.** % Min
7. Water Soluble Ferrous Iron expressed as Fe++? 1.5% Maximum of the 12.0% Fe+++	**Polydyne Inc. is not bidding Ferric Sulfate.** % Max
8. Water Soluble Ferrous Iron expressed as Fe++? 3.0% Maximum in ferric sulfate	**Polydyne Inc. is not bidding Ferric Sulfate.** % Max
9. Water Insoluble Matter: Insoluble in liquid ferric sulfate? .01% Maximum	**Polydyne Inc. is not bidding Ferric Sulfate.** % Max
10. Specific Gravity? Range 1.42 to 1.44	**Polydyne Inc. is not bidding Ferric Sulfate.** Range

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Supplier: **Polydyne Inc.**

CONTRACTOR/VENDOR BACKGROUND CHECKS
FOR ACCESS TO OR WORK IN CITY AND TRUST BUILDINGS AND STRUCTURES

The City has established a policy to better secure City and/or Trust owned or operated buildings and structures by requiring background and fingerprint checks of Non-City employees as a condition precedent to entering City and/or Trust buildings and structures. **Contractor/vendor employees and agents who will be required to enter City and Trust buildings and structures to perform a City or Trust Contract will be required to obtain and provide an Oklahoma State Bureau of Investigation background and fingerprint check to the General Service Director or designee before such Contractor/Vendor employee or agent will be permitted to enter City and/or Trust buildings and structures unescorted, at their cost.**

The General Services Director will establish and maintain a list of Non-City employees authorized to enter City and/or Trust buildings and structures. Background and fingerprint records will be maintained by the General Services Department in a secure location within the City's internal network. Said records will be destroyed within sixty days of: 1) final acceptance by the City Council in the case of construction projects, 2) termination or expiration of a procurement pricing agreement, 3) termination or expiration of an engineering, architectural or planner agreement, or 4) termination or expiration of a professional services agreement, unless the Contractor/Vendor has another contractor or agreement. The City reserves the right and authorizes the General Services Director or designee to request and require any such background check be updated and resubmitted. In addition, the Contractor/Vendor acknowledges and agrees that Contractor/Vendor employees and agents will be asked to verify their identity with a government issued picture identification (Driver's License, Passport, Oklahoma issued Identification Card) from the employee or agent's state of residence to enter City and/or Trust owned or operated buildings and structures.

Arrest and/or conviction records may disqualify Contractor/Vendor employees or agents from access or for work in City or Trust buildings and structures.

In addition to the Sex Offenders Registration Act (57 O.S. Section 581 *et seq*.) and the Mary Rippy Violent Crime Offenders Registration Act (57 O.S. Section 591 *et seq*.), the following criteria will be used when reviewing Contractor/Vendor employee or agent requests for building access:

(a) Any unpardoned felony conviction or plea of nolo contendere may be disqualifying, depending on the nature of the conviction and the relation to the scope of the contract or price agreement, except under the following circumstances:

1. Access to City or Trust buildings and structures is contingent upon successful completion of two (2) years of a deferred or suspended sentence (if the sentence exceeds two (2) years), otherwise, after successfully serving the complete sentence. Applicants must submit two (2) favorable written references, one (1) of which must be from an employer with whom the individual has worked within the last two years. Situations where the applicant is unable to provide a written reference from an employer with whom the individual has worked within the last two (2) years will be reviewed by the General Services Director or designee on a case-by-case basis.

2. Applicants convicted of a felony and ordered to serve time with the Department of Corrections may be eligible for access, depending on the nature of the conviction and the position sought, two (2) years from the date of parole. Applicants must submit two (2) favorable written references, one (1) of which must be from an employer with whom he or

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she has worked within the last two (2) years will be reviewed by the General Services Director or designee on a case-by-case basis.

(b) Any unpardoned conviction(s) involving the following offenses may be disqualifying: moral turpitude; non-consensual sex acts; distribution or trafficking of controlled dangerous substances; assault and battery with a dangerous weapon, or any offense involving a minor as a victim.

(c) Any applicant who has been convicted of a felony, is a current defendant of a Victim Protection Order (VPO) or has been convicted of a misdemeanor crime of Domestic Violence, will not be considered for facility access. Misdemeanor convictions and traffic violations will be evaluated on an individual basis and may be disqualifying.

(d) Any applicant with a pending felony or misdemeanor charge (other than minor traffic violations) will be ineligible for access, until a final disposition of the charge is made.

(e) Any conviction that has been pardoned or expunged cannot be considered in a facility access decision.

If it is determined that information obtained through the applicant's OSBI criminal records check makes the applicant unsuitable for access to City or Trust buildings or structures, the General Services Department will notify the applicant immediately and provide a copy of any criminal record information.

(a) The applicant will be given seven (7) business days to provide information that negates the validity and relevance of the criminal record. If the information obtained through the criminal records check cannot be invalidated by the applicant, the applicant will be denied facility access.

(b) In determining an applicant's suitability for facility access, the General Services Department will consider information including, but not limited to the following:

1. Relevance of the crime to the proposed work to be performed.
2. Nature of the work to be performed;
3. Recency of the conviction;
4. Sensitivity of and potential risk to accessible information, systems, or equipment; and
5. Potential risk or threat to City employees.

Upon approval of a contract or agreement by the City Council/Trust, the successful Contractor(s)/Vendor(s) will be required to submit to the General Services Department the following completed documents for **each** employee requiring access to City or Trust buildings and structures to fulfill the terms of the contract or agreement.

1. Non-Employee Building Access Request Form – available upon request at (405) 297-2123
2. OSBI Criminal History Information Request Portal Response – available at http://www.ok.gov/osbi/CriminalHistory/CHIRP

Polydyne Inc.

Bid Contact **Randal Vickery**
polybiddpt@snfhc.com
Ph 912-880-2035

Address **One Chemical Plant Rd.**
Riceboro, GA 31323

Bid Notes **Polydyne Inc. is not bidding on Group I Ferric Sulfate.**

Item #	Line Item	Notes	Unit Price	Qty/Unit	Attch.	Docs
OCWUT 19-24--01-01	Group 1, Product Details: Manufacturers ANSI/NSF 60 Certification	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. NSF Listing is attached for Polydyne Inc. polymer products; Clarifloc A-6320, A-210P, A-6335, and C-338. Polydyne Inc. is the manufacturer of all of these polymer products.	**First Offer -**	1 / each	**Y**	**Y**
OCWUT 19-24--01-02	Group 1, Product Details: Distributors ANSI/NSF 60 Certification	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate.	**First Offer -**	1 / each		**Y**

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OCWUT 19-24--01-03	Group 1, Product Details: Bid Price Per lbs.	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate.	**First Offer - $0.00**	1 / pound	**$0.00**	**Y**
OCWUT 19-24--01-04	Group 1, Product Details: Bid price Per lbs. for 55 Gallon Drum	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate.	**First Offer - $0.00**	1 / pound	**$0.00**	**Y**
OCWUT 19-24--01-05	Group 1, Product Details: Bid price Per lbs. for Totes	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate.	**First Offer - $0.00**	1 / pound	**$0.00**	**Y**
				Lot Total	**$0.00**	

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Item #	Line Item	Notes	Unit Price	Qty/Unit		Attch.	Docs
OCWUT 19-24--02-01	Group 1 Product Details: Bid price Per lbs. for Bulk Quantity	**Supplier Product Code:** Polydyne Inc. is not bidding on Group I Ferric Sulfate. **Supplier Notes:** Polydyne Inc. is not bidding on Group I Ferric Sulfate.	**First Offer - $0.00**	1 / pound	**$0.00**		**Y**

				Lot Total	**$0.00**		
Item #	**Line Item**	**Notes**	**Unit Price**	**Qty/Unit**		**Attch.**	**Docs**
OCWUT 19-24--03-01	Group 2, Product Details: Bid Price Per lbs.	**Supplier Product Code:** Clarifloc A-6320, A-210P or A-6335 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc A-6320 for Clarifiers at the Hefner Water Treatment Plant, Clarifloc A-210P for Belt Filter Presses at the Draper Water Treatment Plant, and Clarifloc A-6335 for Belt Filter Presses at the Hefner Water Treatment Plant. Since a package type is not provided on this line item, the tote and drum price of $0.970 per pound is input. Bulk quanitities will be $0.850/Lb. as indicated below.	**First Offer - $0.97**	1 / pound	**$0.97**	**Y**	**Y**

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OCWUT 19-24--03-02	Group 2, Product Details: Bid price Per lbs. for 55 Gallon Drum	**Supplier Product Code:** Clarifloc A-6320, A-210P or A-6335 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc A-6320 for Clarifiers at the Hefner Water Treatment Plant, Clarifloc A-210P for Belt Filter Presses at the Draper Water Treatment Plant, and Clarifloc A-6335 for Belt Filter Presses at the Hefner Water Treatment Plant. Polymer will be delivered in 450 pound drums.	**First Offer - $0.97**	1 / pound	**$0.97**	**Y**	**Y**

OCWUT 19-24--03-03	Group 2, Product Details: Bid price Per lbs. for Totes	**Supplier Product Code:** Clarifloc A-6320, A-210P or A-6335 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc A-6320 for Clarifiers at the Hefner Water Treatment Plant, Clarifloc A-210P for Belt Filter Presses at the Draper Water Treatment Plant, and Clarifloc A-6335 for Belt Filter Presses at the Hefner Water Treatment Plant. Polymer will be delivered in 2,300 pound totes.	**First Offer - $0.97**	1 / pound	**$0.97**	**Y**	**Y**

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OCWUT 19-24--03-04	Group 2, Product Details: Bid price Per lbs. for Bulk Quantity	**Supplier Product Code:** Clarifloc A-6320, A-210P or A-6335 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc A-6320 for Clarifiers at the Hefner Water Treatment Plant, Clarifloc A-210P for Belt Filter Presses at the Draper Water Treatment Plant, and Clarifloc A-6335 for Belt Filter Presses at the Hefner Water Treatment Plant. Polymer will be delivered in Bulk Quantities of 43,000 - 45,000 pounds.	**First Offer - $0.85**	1 / pound	**$0.85**	**Y**	**Y**

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				Lot Total	**$3.76**		
Item #	**Line Item**	**Notes**	**Unit Price**	**Qty/Unit**		**Attch.**	**Docs**
OCWUT 19-24--04-01	Group 3, Product Details: Bid Price Per lbs.	**Supplier Product Code:** Clarifloc C-338 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc C-338 for Group 3. Pricing provided in this line is the price for totes and drums, since no package type is	**First Offer - $0.87**	1 / pound	**$0.87**	**Y**	**Y**

		provided. Bulk Quantity pricing will be $0.730/Lb.					
OCWUT 19-24--04-02	Group 3, Product Details: Bid price Per lbs. for 55 Gallon Drum	**Supplier Product Code:** Clarifloc C-338 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc C-338 for Group 3. Polymer will be delivered in 450 pound drums.	**First Offer - $0.87**	1 / pound	**$0.87**	**Y**	**Y**

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OCWUT 19-24--04-03	Group 3, Product Details: Bid price Per lbs. for Totes	**Supplier Product Code:** Clarifloc C-338 **Supplier Notes:** Polydyne Inc. is bidding Clarifloc C-338 for Group 3. Polymer will be delivered in 2,300 pound totes.	**First Offer - $0.87**	1 / pound	**$0.87**	**Y**	**Y**
OCWUT 19-24--04-04	Group 3, Product Details: Bid price Per lbs.	**Supplier Product Code:** Clarifloc C-338 **Supplier Notes:** Polydyne Inc. is	**First Offer - $0.73**	1 / pound	**$0.73**	**Y**	**Y**

for Bulk Quantity	bidding Clarifloc C-338 for Group 3. Polymer will be delivered in Bulk Quantities of 43,000 - 45,000 pounds.

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				Lot Total	**$3.34**		
Item #	**Line Item**	**Notes**	**Unit Price**	**Qty/Unit**		**Attch.**	**Docs**
OCWUT 19-24--05-01	Group 4, Delivery: Delivery Standard - Monday through Friday	**Supplier Product Code:** Delivery Time **Supplier Notes:** 10 Calendar Days	**First Offer -**	1 / day		**Y**	**Y**

OCWUT 19-24--05-02	Group 4, Delivery: Delivery Peak Season	**Supplier Product Code:** Delivery Time **Supplier Notes:** 10 Calendar Days	**First Offer -**	1 / day	**Y**
OCWUT 19-24--05-03	Group 4, Delivery: Delivery Emergency	**Supplier Product Code:** Delivery Time **Supplier Notes:** 4 - 10 Calendar Days. Clarifloc C-338 is manufactured at Pearlington, MS. Clarifloc A-6320, A-210P and A-6335 are manufactured at Riceboro, GA.	**First Offer -**	1 / day	**Y**

Lot Total **$0.00**

Supplier Total **$7.10**

C249054

Polydyne Inc.

Item: **Group 1, Product Details:Manufacturers ANSI/NSF 60 Certification**

Attachments

NSF Listing for Polydyne Inc..pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

C249054

NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

C249054

Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

C249054

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

C249054

Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

Polydyne Inc.

Item: **Group 2, Product Details:Group 2, Product Details:Bid Price Per lbs.**

Attachments

Product Information for Clarifloc A-6320, A-210P and A-6335.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

C249054

NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6320**

PURCHASE ORDER NR : **DATE :** **02/02/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER RA39/7882M**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	780	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	35.1	1050 A
UL BROOKFIELD VISCOSITY	cps	4.30 - 5.70	5.66	1019 A
RESIDUAL ACRYLAMIDE / AC	ppm	0 - 499	260	1001 A
			Date : **02/02/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

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CLARIFLOC A-6320 POLYMER

PRINCIPAL USES

CLARIFLOC A-6320 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6320 is **NSF** certified for clarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	5 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.7

PREPARATION AND FEEDING

CLARIFLOC A-6320 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	4.3 - 5.7 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6320, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6320 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6320 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6320**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish:	LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation:	Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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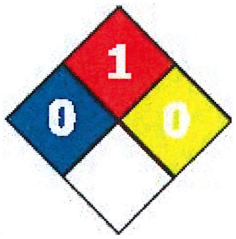
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-210P**

PURCHASE ORDER NR : **DATE :** **02/11/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6751**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	850	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	36.1	1050 A
UL BROOKFIELD VISCOSITY	cps	7.50 - 9.30	8.19	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	400	1001 A
			Date : **02/11/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-210P POLYMER

PRINCIPAL USES

CLARIFLOC A-210P is a **medium** charge anionic polyacrylamide in emulsion form that is used as a fl occulant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-210P isNSFcertifiedforclarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	30 %
Active Polyacrylamide Min.	29
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9
Viscosity (0.5% Sol'n)	700 - 900 cPs

PREPARATION AND FEEDING

CLARIFLOC A-210P is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	7.5 - 9.3 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-210P, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal contain-ers. Do not spray water onto a spill because the resulting gel is very diffi cult to clean up.

SAFETY INFORMATION

CLARIFLOC A-210P is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procure-ment, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **Polydyne** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-210P Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon tote bins containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(912) 884-3366

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-210P**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitisation: By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

Carcinogenicity: Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity: LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation: The results of testing on guinea pigs showed this material to be non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

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12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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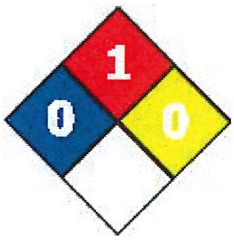
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

SAFETY DATA SHEET

CLARIFLOC™ A-210P

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6335**

PURCHASE ORDER NR : **DATE :** **01/23/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6768**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	840	1010 A
NON VOLATILE SOLIDS	%	32.5 - 39.5	34.8	1050 A
UL BROOKFIELD VISCOSITY	cps	5.30 - 7.40	6.06	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	80	1001 A
			Date : **01/23/2024**	
			Signature	
			Kiet Tran	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-6335 POLYMER

PRINCIPAL USES

CLARIFLOC A-6335 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal water and wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6335 is **NSF** certified for clarification of potable water at dosages up to 3.0 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	20 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9 lbs/gal

PREPARATION AND FEEDING

CLARIFLOC A-6335 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	32.5 – 39.5 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	5.3 – 7.4 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is one year in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6335, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6335 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6335 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6335**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitisation: By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

Carcinogenicity: Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity: LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation: The results of testing on guinea pigs showed this material to be non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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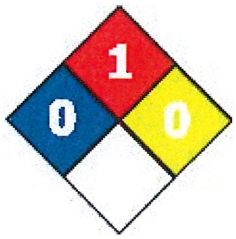
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Polydyne Inc.

Item: **Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Bid price Per lbs. for 55 Gallon Drum**

Attachments

Product Information for Clarifloc A-6320, A-210P and A-6335.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

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NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

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[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

C249054

Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6320**

PURCHASE ORDER NR : **DATE :** **02/02/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER RA39/7882M**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	780	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	35.1	1050 A
UL BROOKFIELD VISCOSITY	cps	4.30 - 5.70	5.66	1019 A
RESIDUAL ACRYLAMIDE / AC	ppm	0 - 499	260	1001 A
			Date : **02/02/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-6320 POLYMER

PRINCIPAL USES

CLARIFLOC A-6320 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6320 is **NSF** certified for clarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	5 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.7

PREPARATION AND FEEDING

CLARIFLOC A-6320 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	4.3 - 5.7 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6320, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6320 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6320 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6320**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm²/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish:	LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation:	Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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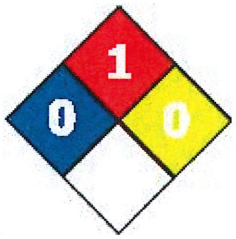
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-210P**

PURCHASE ORDER NR : **DATE :** **02/11/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6751**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	850	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	36.1	1050 A
UL BROOKFIELD VISCOSITY	cps	7.50 - 9.30	8.19	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	400	1001 A
			Date : **02/11/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-210P POLYMER

PRINCIPAL USES

CLARIFLOC A-210P is a **medium** charge anionic polyacrylamide in emulsion form that is used as a fl occulant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-210P isNSFcertifiedforclarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	30 %
Active Polyacrylamide Min.	29
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9
Viscosity (0.5% Sol'n)	700 - 900 cPs

PREPARATION AND FEEDING

CLARIFLOC A-210P is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	7.5 - 9.3 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-210P, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal contain-ers. Do not spray water onto a spill because the resulting gel is very diffi cult to clean up.

SAFETY INFORMATION

CLARIFLOC A-210P is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procure-ment, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **Polydyne** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-210P Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon tote bins containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(912) 884-3366

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-210P**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

C249054

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

C249054

Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

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12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

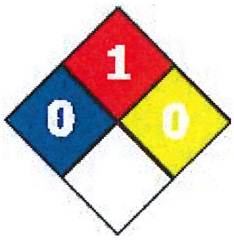
C249054

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

SAFETY DATA SHEET

CLARIFLOC™ A-210P

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6335**

PURCHASE ORDER NR : **DATE :** **01/23/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6768**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	840	1010 A
NON VOLATILE SOLIDS	%	32.5 - 39.5	34.8	1050 A
UL BROOKFIELD VISCOSITY	cps	5.30 - 7.40	6.06	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	80	1001 A
			Date : **01/23/2024** **Signature** **Kiet Tran**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-6335 POLYMER

PRINCIPAL USES

CLARIFLOC A-6335 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal water and wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6335 is **NSF** certified for clarification of potable water at dosages up to 3.0 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	20 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9 lbs/gal

PREPARATION AND FEEDING

CLARIFLOC A-6335 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	32.5 – 39.5 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	5.3 – 7.4 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is one year in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6335, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6335 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6335 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6335**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

C249054

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

C249054

Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitisation: By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

Carcinogenicity: Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity: LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation: The results of testing on guinea pigs showed this material to be non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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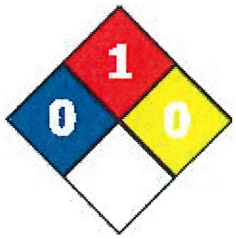
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Polydyne Inc.

Item: **Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Bid price Per lbs. for Totes**

Attachments

Product Information for Clarifloc A-6320, A-210P and A-6335.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

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NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

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[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6320**

PURCHASE ORDER NR : **DATE :** **02/02/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER RA39/7882M**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	780	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	35.1	1050 A
UL BROOKFIELD VISCOSITY	cps	4.30 - 5.70	5.66	1019 A
RESIDUAL ACRYLAMIDE / AC	ppm	0 - 499	260	1001 A
			Date : **02/02/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

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CLARIFLOC A-6320 POLYMER

PRINCIPAL USES

CLARIFLOC A-6320 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6320 is **NSF** certified for clarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	5 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.7

PREPARATION AND FEEDING

CLARIFLOC A-6320 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	4.3 - 5.7 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6320, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6320 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6320 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:	**CLARIFLOC™ A-6320**
Type of product:	Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses:	Processing aid for industrial applications.
Uses advised against:	None.

1.3. Details of the supplier of the safety data sheet

Company:	POLYDYNE INC 1 Chemical Plant Road PO BOX 279 Riceboro, GA 31323
Telephone:	1-800-848-7659
Telefax:	(912)-884-8770
E-mail address:	-

1.4. Emergency telephone number

24-hour emergency number:	1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm²/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish:	LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation:	Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

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12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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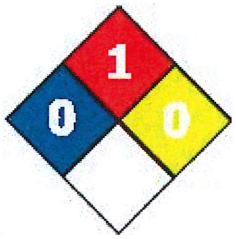
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-210P**

PURCHASE ORDER NR : **DATE :** **02/11/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6751**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	850	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	36.1	1050 A
UL BROOKFIELD VISCOSITY	cps	7.50 - 9.30	8.19	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	400	1001 A

Date : **02/11/2024**
Signature
Mary Carter

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-210P POLYMER

PRINCIPAL USES

CLARIFLOC A-210P is a **medium** charge anionic polyacrylamide in emulsion form that is used as a fl occulant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-210P isNSFcertifiedforclarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	30 %
Active Polyacrylamide Min.	29
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9
Viscosity (0.5% Sol'n)	700 - 900 cPs

PREPARATION AND FEEDING

CLARIFLOC A-210P is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	7.5 - 9.3 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-210P, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal contain-ers. Do not spray water onto a spill because the resulting gel is very diffi cult to clean up.

SAFETY INFORMATION

CLARIFLOC A-210P is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procure-ment, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **Polydyne** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-210P Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon tote bins containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(912) 884-3366

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-210P**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

C249054

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

C249054

Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

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12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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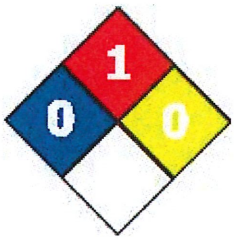
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

SAFETY DATA SHEET

CLARIFLOC™ A-210P

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6335**

PURCHASE ORDER NR : **DATE : 01/23/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6768**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	840	1010 A
NON VOLATILE SOLIDS	%	32.5 - 39.5	34.8	1050 A
UL BROOKFIELD VISCOSITY	cps	5.30 - 7.40	6.06	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	80	1001 A
			Date : 01/23/2024 **Signature** **Kiet Tran**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-6335 POLYMER

PRINCIPAL USES

CLARIFLOC A-6335 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal water and wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6335 is **NSF** certified for clarification of potable water at dosages up to 3.0 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	20 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9 lbs/gal

PREPARATION AND FEEDING

CLARIFLOC A-6335 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	32.5 – 39.5 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	5.3 – 7.4 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is one year in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6335, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6335 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6335 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6335**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitisation: By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

Carcinogenicity: Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity: LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation: The results of testing on guinea pigs showed this material to be non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

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Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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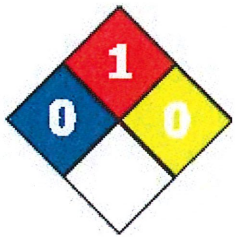
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Polydyne Inc.

Item: **Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Group 2, Product Details:Bid price Per lbs. for Bulk Quantity**

Attachments

Product Information for Clarifloc A-6320, A-210P and A-6335.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

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NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

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[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6320**

PURCHASE ORDER NR : **DATE :** **02/02/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER RA39/7882M**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	780	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	35.1	1050 A
UL BROOKFIELD VISCOSITY	cps	4.30 - 5.70	5.66	1019 A
RESIDUAL ACRYLAMIDE / AC	ppm	0 - 499	260	1001 A
			Date : **02/02/2024** **Signature** **Mary Carter**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

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CLARIFLOC A-6320 POLYMER

PRINCIPAL USES

CLARIFLOC A-6320 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6320 is **NSF** certified for clarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	5 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.7

PREPARATION AND FEEDING

CLARIFLOC A-6320 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	4.3 - 5.7 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6320, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6320 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6320 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6320**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm²/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish:	LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation:	Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

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12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

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US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

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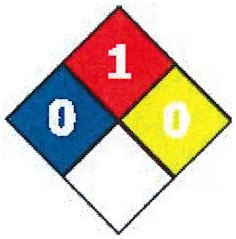
SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO, GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-210P**

PURCHASE ORDER NR : **DATE :** **02/11/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6751**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	850	1010 A
NON VOLATILE SOLIDS	%	34.0 - 41.0	36.1	1050 A
UL BROOKFIELD VISCOSITY	cps	7.50 - 9.30	8.19	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	400	1001 A

Date : **02/11/2024**
Signature
Mary Carter

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-210P POLYMER

PRINCIPAL USES

CLARIFLOC A-210P is a **medium** charge anionic polyacrylamide in emulsion form that is used as a fl occulant in a wide variety of municipal wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-210P isNSFcertifiedforclarification of potable water at dosages up to 3 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	30 %
Active Polyacrylamide Min.	29
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9
Viscosity (0.5% Sol'n)	700 - 900 cPs

PREPARATION AND FEEDING

CLARIFLOC A-210P is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	34 - 41 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	7.5 - 9.3 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is 6 months in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-210P, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal contain-ers. Do not spray water onto a spill because the resulting gel is very diffi cult to clean up.

SAFETY INFORMATION

CLARIFLOC A-210P is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procure-ment, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **Polydyne** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-210P Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon tote bins containing 2300 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from anywhere in the continental United States, call toll free:

(912) 884-3366

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-210P**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin sensitisation:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

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Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

C249054

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

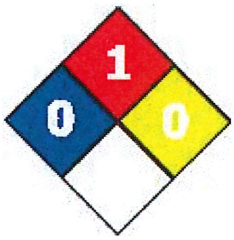
C249054

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

SAFETY DATA SHEET

CLARIFLOC™ A-210P

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO GA 31323

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC A-6335**

PURCHASE ORDER NR : **DATE : 01/23/2024**

AMOUNT :			**QUALITY CONTROL**	**QC**
	UNIT	**SPECIFICATION**	**BATCH NUMBER BTA3/6768**	**TEST**
BULK BROOKFIELD VISCOSITY	cps	500 - 2000	840	1010 A
NON VOLATILE SOLIDS	%	32.5 - 39.5	34.8	1050 A
UL BROOKFIELD VISCOSITY	cps	5.30 - 7.40	6.06	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 499	80	1001 A
			Date : 01/23/2024 **Signature** **Kiet Tran**	

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC A-6335 POLYMER

PRINCIPAL USES

CLARIFLOC A-6335 is a **low** charge anionic polyacrylamide in emulsion form that is used as a flocculant in a wide variety of municipal water and wastewater treatment applications. It has been successfully applied in all liquid/solids separation systems including clarification, thickening, and dewatering. CLARIFLOC A-6335 is **NSF** certified for clarification of potable water at dosages up to 3.0 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Anionicity	20 %
Active Polyacrylamide Min.	29 %
Freezing Point	7 F. (-14 C.)
Density	8.7 - 8.9 lbs/gal

PREPARATION AND FEEDING

CLARIFLOC A-6335 is a single component emulsion polymer that must be pre-diluted in water before use. In most cases, this product should not be applied neat. One method for dilution is adding the neat polymer into the vortex of a mixed tank at a concentration between 0.25-1.0% polymer (0.5% is optimum) by weight. The polymer can also be injected through a number of commercially available systems that provide in-line mechanical mixing. The best feed systems use initial high energy mixing (>1000 rpm) for a short time (<30 sec) to achieve good dispersion followed by low energy mixing (<400 rpm) for a longer time (10-30 min). Polymer solutions should be aged for 15-60 minutes for best results. Solution shelf life is 8-16 hours.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Avoid natural rubber and Buna-N gaskets as these materials swell when placed in contact with neat polymer. Unlined mild steel, black iron, galvanized steel, copper or brass are not recommended in any part of the feed system. Stainless steel, Viton or Teflon are the best choices for pump heads. For feed lines, use PVC or reinforced Tygon tubing.

MANUFACTURING SPECIFICATIONS

Total Solids	32.5 – 39.5 %
Residual AcAm	< 500 ppm
Neat Viscosity	500 - 2000 cPs
UL Viscosity	5.3 – 7.4 cPs

HANDLING AND STORAGE

Suggested in-plant storage life is one year in unopened drums. For best results, store at 50-80 F. Bulk tanks should be mixed by periodically recirculating the contents bottom to top. Bulk tanks can also be fitted with an agitator type mixer that reaches the bottom 2 feet of the tank. Drums and bins should be mixed very well before first use and weekly after that. Do not allow emulsion polymers to freeze. Should freezing occur, allow the product to thaw thoroughly in a heated area and mix well before attempting to use it. For spills of CLARIFLOC A-6335, sprinkle vermiculite or equivalent absorbant over the spill area and sweep the material into approved chemical disposal containers. Do not spray water onto a spill because the resulting gel is very difficult to clean up.

SAFETY INFORMATION

CLARIFLOC A-6335 is a mildly acidic product that can irritate the skin and eyes and should be handled accordingly. Gloves, goggles and apron are highly recommended. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling precautions involved. Such information is outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with this product, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC A-6335 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2300 pounds net. Bulk quantities are also available.

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • Tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ A-6335**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):	None.
Signal word:	None.
Hazard statement(s):	None.
Precautionary statement(s):	None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range:	20 - 45%
CAS Number:	64742-47-8
Classification according to paragraph (d) of 29 CFR 1910.1200:	Asp. Tox. 1;H304

Notes
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range:	< 5%
CAS Number:	69011-36-5
Classification according to paragraph (d) of 29 CFR 1910.1200:	Acute Tox. 4;H302, Eye Dam. 1;H318

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO_2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH_3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions:
Avoid contact with skin and eyes. Spills produce extremely slippery surfaces. Do not touch or walk through spilled material.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

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Distillates (petroleum), hydrotreated light
ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
Breathing apparatus needed only when aerosol or mist is formed. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Viscous liquid, Milky.
b) Odour:	Aliphatic.
c) Odour Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.

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h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	No data available.
q) Decomposition temperature:	> 150°C
r) Viscosity:	No data available.
s) Kinematic viscosity:	> 20.5 mm^2/s @40°C
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

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Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Ammonia (NH3). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitisation:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute inhalation toxicity:	LC0/inhalation/4 hours/rat >= 4951 mg/m³ (vapors) (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.

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Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitisation: By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)

Carcinogenicity: Carcinogenicity study in rats (OECD 451): Negative.

Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 ppm. (OECD 421)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: LD50/oral/rat = 500 - 2000 mg/kg

Acute dermal toxicity: LD50/dermal/rabbit > 2000 mg/kg

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitisation: The results of testing on guinea pigs showed this material to be non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

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Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L (Estimated) LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202)
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L

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Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L

Toxicity to microorganisms: EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)

Acute toxicity to algae: IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)

Chronic toxicity to fish: No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% / 28 days (OECD 301 F) ; 68.8% / 28 days (OECD 306) ; 61.2% / 61 days (OECD 304 A)

C249054

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyse.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): Not applicable.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (Log Pow): 3 - 6

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

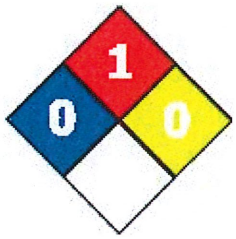
C249054

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	1
Instability:	0



HMIS:

Health:	0
Flammability:	1
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

Hazard statements
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 24.01.a

ENAC001A

C249054

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Polydyne Inc.

Item: **Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Bid Price Per lbs.**

Attachments

Product Information for Clarifloc C-338.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

C249054

NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

C249054

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
3080 PORT & HARBOR DRIVE
INDUSTRIAL PARK ROAD D
PEARLINGTON MS 39572

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC C-338**

PURCHASE ORDER NR : **DATE : 02/16/2024**

AMOUNT : 45000 LB

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER PPDD/45865	QC TEST
pH on solution		5.0 - 7.0	5.5	3130 A
BROOKFIELD VISCOSITY (LV2, 30 rpm)	cps	200 - 600	290	3420 A
NON VOLATILE SOLIDS	%	19.0 - 22.0	19.8	3100 A

Date : 02/16/2024
Signature
Tony Harris

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC C-338 POLYMER

CHARACTERISTICS

CLARIFLOC C-338 polymer is a **medium** molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-338 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-338 is **NSF** certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Amber Liquid
Density	8.4 - 8.9 lbs/gal
Freezing Point	25 F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-338 is a solution polymer which can be diluted to any convenient concentration for feeding. Fill the dilution tank with enough water to cover the mixing blades, add the desired quantity of CLARIFLOC C-338 and allow to mix while topping-off the tank with water. Totally automatic dilution equipment is available.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.03 - 1.05
% Active	19.0 - 22.0
Product Viscosity	200 - 600 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-338 has a suggested in-plant storage life of six months in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-338, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-338 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-338, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-338 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2400 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ C-338**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components
Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Do not contaminate water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
No personal respiratory protective equipment normally required.

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7 (See Technical Bulletin or Product Specifications for a more precise value, if available)
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.
h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible in water.
o) Partition coefficient n-octanol/water (log value):	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Kinematic viscosity:	No data available.
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

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None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/eye irritation:	Slightly irritating.
Respiratory/skin sensitisation:	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.

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Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L
Acute toxicity to algae:	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

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Partition co-efficient (Log Pow): < 0

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

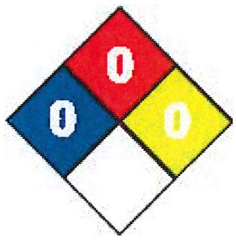
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0



HMIS:

Health:	0
Flammability:	0
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 23.01.a

LDCC010A

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Polydyne Inc.

Item: **Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Bid price Per lbs. for Totes**

Attachments

Product Information for Clarifloc C-338.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

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NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

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[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
3080 PORT & HARBOR DRIVE
INDUSTRIAL PARK ROAD D
PEARLINGTON MS 39572

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC C-338**

PURCHASE ORDER NR : **DATE : 02/16/2024**

AMOUNT : 45000 LB

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER PPDD/45865	QC TEST
pH on solution		5.0 - 7.0	5.5	3130 A
BROOKFIELD VISCOSITY (LV2, 30 rpm)	cps	200 - 600	290	3420 A
NON VOLATILE SOLIDS	%	19.0 - 22.0	19.8	3100 A

Date : 02/16/2024
Signature
Tony Harris

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

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CLARIFLOC C-338 POLYMER

CHARACTERISTICS

CLARIFLOC C-338 polymer is a **medium** molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-338 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-338 is **NSF** certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Amber Liquid
Density	8.4 - 8.9 lbs/gal
Freezing Point	25 F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-338 is a solution polymer which can be diluted to any convenient concentration for feeding. Fill the dilution tank with enough water to cover the mixing blades, add the desired quantity of CLARIFLOC C-338 and allow to mix while topping-off the tank with water. Totally automatic dilution equipment is available.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.03 - 1.05
% Active	19.0 - 22.0
Product Viscosity	200 - 600 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-338 has a suggested in-plant storage life of six months in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-338, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-338 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-338, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-338 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2400 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ C-338**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components
Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Do not contaminate water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
No personal respiratory protective equipment normally required.

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7 (See Technical Bulletin or Product Specifications for a more precise value, if available)
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.
h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible in water.
o) Partition coefficient n-octanol/water (log value):	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Kinematic viscosity:	No data available.
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

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None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/eye irritation:	Slightly irritating.
Respiratory/skin sensitisation:	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.

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Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L
Acute toxicity to algae:	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

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Partition co-efficient (Log Pow): < 0

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

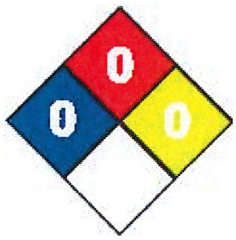
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0



HMIS:

Health:	0
Flammability:	0
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 23.01.a

LDCC010A

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

C249054

Polydyne Inc.

Item: **Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Bid price Per lbs. for 55 Gallon Drum**

Attachments

Product Information for Clarifloc C-338.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

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NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
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Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
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FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

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Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
3080 PORT & HARBOR DRIVE
INDUSTRIAL PARK ROAD D
PEARLINGTON MS 39572

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC C-338**

PURCHASE ORDER NR : **DATE : 02/16/2024**

AMOUNT : 45000 LB

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER PPDD/45865	QC TEST
pH on solution		5.0 - 7.0	5.5	3130 A
BROOKFIELD VISCOSITY (LV2, 30 rpm)	cps	200 - 600	290	3420 A
NON VOLATILE SOLIDS	%	19.0 - 22.0	19.8	3100 A

Date : 02/16/2024
Signature
Tony Harris

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

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CLARIFLOC C-338 POLYMER

CHARACTERISTICS

CLARIFLOC C-338 polymer is a **medium** molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-338 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-338 is **NSF** certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Amber Liquid
Density	8.4 - 8.9 lbs/gal
Freezing Point	25 F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-338 is a solution polymer which can be diluted to any convenient concentration for feeding. Fill the dilution tank with enough water to cover the mixing blades, add the desired quantity of CLARIFLOC C-338 and allow to mix while topping-off the tank with water. Totally automatic dilution equipment is available.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.03 - 1.05
% Active	19.0 - 22.0
Product Viscosity	200 - 600 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-338 has a suggested in-plant storage life of six months in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-338, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-338 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-338, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-338 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2400 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ C-338**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components
Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Do not contaminate water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
No personal respiratory protective equipment normally required.

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7 (See Technical Bulletin or Product Specifications for a more precise value, if available)
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.
h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible in water.
o) Partition coefficient n-octanol/water (log value):	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Kinematic viscosity:	No data available.
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/eye irritation:	Slightly irritating.
Respiratory/skin sensitisation:	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.

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Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L
Acute toxicity to algae:	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

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Partition co-efficient (Log Pow): < 0

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

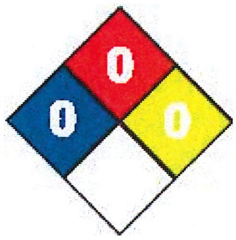
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0



HMIS:

Health:	0
Flammability:	0
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 23.01.a

LDCC010A

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

C249054

Polydyne Inc.

Item: **Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Group 3, Product Details:Bid price Per lbs. for Bulk Quantity**

Attachments

Product Information for Clarifloc C-338.pdf

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The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 21, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:
http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=37260&Standard=060&

C249054

NSF/ANSI/CAN 60
Drinking Water Treatment Chemicals - Health Effects

Polydyne Incorporated
P.O. Box 279
Riceboro, GA 31323
United States
800-848-7659
Visit this company's website
(http://www.polydyneinc.com)

Facility : Los Angeles, CA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50 mg/L
Clarifloc® C-318	Coagulation & Flocculation	25 mg/L
Clarifloc® C-318P	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50 mg/L
Clarifloc® C-348	Coagulation & Flocculation	25 mg/L
Clarifloc® C-358	Coagulation & Flocculation	50 mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L

Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100 mg/L

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® A-6320	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FLOPAM™ EM 230 PWG	Coagulation & Flocculation	3mg/L
FLOPAM™ EM 235 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

C249054

Facility : Riceboro, GA

Miscellaneous Water Supply Products[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30 S	Well Cleaning Aid Well Drilling Aid	NA

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking

water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L

Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 587C	Coagulation & Flocculation	50mg/L
FBS 591C	Coagulation & Flocculation	50mg/L
FBS 592C	Coagulation & Flocculation	25mg/L

Polyacrylamide[PC]

Trade Designation	***Product Function***	***Max Use***
CLARIFLOC A-3345P	Coagulation & Flocculation	1mg/L
CLARIFLOC C-6246 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC C-6256 PWG	Coagulation & Flocculation	3mg/L
CLARIFLOC® C-6241 PWG	Coagulation & Flocculation	1mg/L
Clarifloc C-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-210P	Coagulation & Flocculation	3 mg/L
Clarifloc® A-3301	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3308P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3310	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3320	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3333P	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-3360	Coagulation & Flocculation	1mg/L
Clarifloc® A-6270	Coagulation & Flocculation	3mg/L
Clarifloc® A-6320	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6330	Coagulation & Flocculation	3 mg/L
Clarifloc® A-6335	Coagulation & Flocculation	3mg/L
Clarifloc® A-6340	Coagulation & Flocculation	1 mg/L
Clarifloc® A-6355	Coagulation & Flocculation	3mg/L
Clarifloc® A-6360	Coagulation & Flocculation	3 mg/L
Clarifloc® A6351	Coagulation & Flocculation	3mg/L
Clarifloc® C-3203	Coagulation & Flocculation	1mg/L
Clarifloc® C-3205	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3210	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3223	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3226	Coagulation & Flocculation	1mg/L
Clarifloc® C-3230	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3257	Coagulation & Flocculation	1 mg/L
Clarifloc® C-3280	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6203	Coagulation & Flocculation	1 mg/L
Clarifloc® C-6210	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6215	Coagulation & Flocculation	3mg/L
Clarifloc® C-6220	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6240	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6242 PWG	Coagulation & Flocculation	1mg/L

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Clarifloc® C-6257 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6260	Coagulation & Flocculation	3 mg/L
Clarifloc® C-6265 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 A PWG	Coagulation & Flocculation	3mg/L
Clarifloc® C-6266 PWG	Coagulation & Flocculation	3mg/L
Clarifloc® N-120P	Coagulation & Flocculation	3 mg/L
Clarifloc® N-3300P	Coagulation & Flocculation	1 mg/L
Clarifloc® N-6310	Coagulation & Flocculation	3 mg/L
FBS 7000PWG	Coagulation & Flocculation	3mg/L
FBS 930PWG	Coagulation & Flocculation	1mg/L
FBS A-103PWG	Coagulation & Flocculation	1mg/L
FBS A104PWG	Coagulation & Flocculation	3mg/L
FBS C1285PWG	Coagulation & Flocculation	3mg/L
FBS C294PWG	Coagulation & Flocculation	3mg/L
FBS C8415PWG	Coagulation & Flocculation	1mg/L
FBS-A192PWG	Coagulation & Flocculation	1mg/L
FLOPAM™ EM 533 PWG	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	10mg/L
Clarifloc® C-329	Coagulation & Flocculation	10mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	10mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Polyacrylate[1] [2]

Trade Designation	*Product Function*	*Max Use*
Flosperse 30	Distillation Antiscalant Reverse Osmosis Antiscalant	20mg/L

C249054

[1] This product is designed to be flushed out prior to using the system for drinking water. The well is to be properly flushed and drained before being placed into service. This product is to be used according to the manufacturer's use instructions.

[2] These products are designed to be flushed out prior to using the system for drinking water. Before being placed into service, the well is to be properly flushed according to the manufacturer's use instructions. Certification of these products is based on the well drilling model with the following assumptions:

- The amount of well drilling fluid used is 3780 L (1000 U.S. gallons) to which the drilling fluid has been added at the manufacturer's recommended level.
- The aquifer contains 3.1 million liters of water (815,000 gallons) based on a 0.5 acre aquifer of 6.1 meter depth (20 ft.) and 25% porosity.
- The bore hole is 61 meters in total depth (200 ft.), the screen is 6.1 meters in length (20 ft.), and the bore hole is 25.4 cm. in diameter (10 in.).
- The amount of well drilling fluid removed from the well during construction is equal to the combined volumes of the casing and the screen, plus an additional amount removed through the well disinfection and development (90% removed).
- This product should not be used in constructing wells in highly porous formations, such as cavernous limestone.

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Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	72mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L
Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L

Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L

Facility : Plaquemine, LA

Polyacrylamide[PC]

Trade Designation	*Product Function*	*Max Use*
Clarifloc A-210P	Coagulation & Flocculation	3mg/L

[PC] Polyacrylamide Products Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Facility : Pearlington, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L
Clarifloc® C-318	Coagulation & Flocculation	25mg/L
Clarifloc® C-328	Coagulation & Flocculation	83mg/L
Clarifloc® C-338	Coagulation & Flocculation	50mg/L
Clarifloc® C-348	Coagulation & Flocculation	25mg/L
Clarifloc® C-358	Coagulation & Flocculation	50mg/L
Clarifloc® C-368	Coagulation & Flocculation	29mg/L
Clarifloc® C-378	Coagulation & Flocculation	50mg/L
Clarifloc® C-388	Coagulation & Flocculation	100mg/L
Clarifloc® C-398	Coagulation & Flocculation	29mg/L
Clarifloc® C-4135	Coagulation & Flocculation	29mg/L
Clarifloc® C-4408	Coagulation & Flocculation	125mg/L
Clarifloc® C-4410	Coagulation & Flocculation	100mg/L
Clarifloc® C-4411	Coagulation & Flocculation	91mg/L
Clarifloc® C-4412	Coagulation & Flocculation	83mg/L
Clarifloc® C-4413	Coagulation & Flocculation	77mg/L
Clarifloc® C-4414	Coagulation & Flocculation	71mg/L
Clarifloc® C-4415	Coagulation & Flocculation	67mg/L

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Clarifloc® C-4416	Coagulation & Flocculation	62mg/L
Clarifloc® C-4417	Coagulation & Flocculation	59mg/L
Clarifloc® C-4418	Coagulation & Flocculation	56mg/L
Clarifloc® C-4419	Coagulation & Flocculation	53mg/L
Clarifloc® C-4420	Coagulation & Flocculation	50mg/L
Clarifloc® C-4422	Coagulation & Flocculation	46mg/L
Clarifloc® C-4424	Coagulation & Flocculation	42mg/L
Clarifloc® C-4426	Coagulation & Flocculation	39mg/L
Clarifloc® C-4428	Coagulation & Flocculation	36mg/L
Clarifloc® C-4430	Coagulation & Flocculation	33mg/L
Clarifloc® C-4435	Coagulation & Flocculation	29mg/L
Clarifloc® C-4440	Coagulation & Flocculation	25mg/L
Clarifloc® LF-3541	Coagulation & Flocculation	100mg/L
FBS 515C	Coagulation & Flocculation	50mg/L
FBS 521N	Coagulation & Flocculation	50mg/L

Polyamines[PY]

Trade Designation	*Product Function*	*Max Use*
Clarifloc® C-309D	Coagulation & Flocculation	32mg/L
Clarifloc® C-309P	Coagulation & Flocculation	10mg/L
Clarifloc® C-319	Coagulation & Flocculation	20mg/L
Clarifloc® C-329	Coagulation & Flocculation	20mg/L
Clarifloc® C-339	Coagulation & Flocculation	10mg/L
Clarifloc® C-349	Coagulation & Flocculation	10mg/L
Clarifloc® C-359	Coagulation & Flocculation	10mg/L
Clarifloc® C-379	Coagulation & Flocculation	20mg/L
Clarifloc® C-389	Coagulation & Flocculation	10mg/L
Clarifloc® C-399	Coagulation & Flocculation	10mg/L
FLOQUAT™ FL 3050 PWG	Coagulation & Flocculation	10mg/L
PRP 3050	Coagulation & Flocculation	10mg/L

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

C249054

Number of matching Manufacturers is 1

Number of matching Products is 203

Processing time was 0 seconds

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
3080 PORT & HARBOR DRIVE
INDUSTRIAL PARK ROAD D
PEARLINGTON MS 39572

CUSTOMER NAME :

OA # :

C249054

POLYDYNE PRODUCT NAME : **CLARIFLOC C-338**

PURCHASE ORDER NR : **DATE : 02/16/2024**

AMOUNT : 45000 LB

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER PPDD/45865	QC TEST
pH on solution		5.0 - 7.0	5.5	3130 A
BROOKFIELD VISCOSITY (LV2, 30 rpm)	cps	200 - 600	290	3420 A
NON VOLATILE SOLIDS	%	19.0 - 22.0	19.8	3100 A

Date : 02/16/2024
Signature
Tony Harris

If the # symbol appears in the QC-TEST column, then the data on that line is given for information only, and does not constitute a specification.
If ND appears in the result column, that means under the limit of detection.
For Personal Care ingredients, the generic name is corresponding to the INCI name.

SUP NR: OG-0098 REVISION: 04

SNF WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

C249054

CLARIFLOC C-338 POLYMER

CHARACTERISTICS

CLARIFLOC C-338 polymer is a **medium** molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water and wastewater clarification in a wide variety of municipal applications. CLARIFLOC C-338 can partially or totally replace alum, ferric, lime and other inorganic coagulants, thereby reducing sludge volume. Unlike inorganics, it is effective over very wide pH ranges. CLARIFLOC C-338 is **NSF** certified for clarification of potable water at dosages up to 50 mg/L.

TYPICAL PROPERTIES

Physical Form	Clear Amber Liquid
Density	8.4 - 8.9 lbs/gal
Freezing Point	25 F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-338 is a solution polymer which can be diluted to any convenient concentration for feeding. Fill the dilution tank with enough water to cover the mixing blades, add the desired quantity of CLARIFLOC C-338 and allow to mix while topping-off the tank with water. Totally automatic dilution equipment is available.

MATERIALS OF CONSTRUCTION

Crosslinked polyethylene, fiberglass, stainless steel and lined mild steel are the preferred materials of construction for bulk tanks. Unlined mild steel, black iron, galvanized steel, or copper are not recommended in any part of the polymer feed system. Stainless steel or PVC are the best choice for pump heads and feed lines.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.03 - 1.05
% Active	19.0 - 22.0
Product Viscosity	200 - 600 cPs
Product pH	5.0 - 7.0

HANDLING AND STORAGE

CLARIFLOC C-338 has a suggested in-plant storage life of six months in unopened drums. For best results, store at 40-90 F. Protect from freezing. If the product freezes, allow it to warm up in a heated area and thaw thoroughly before attempting to use it. For spills of CLARIFLOC C-338, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-338 is a mildly acidic product that can irritate the skin and eyes, so gloves, rubber apron and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of this product should familiarize themselves with the appropriate safety and handling information outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC C-338, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-338 Polymer is shipped in 55 gallon drums containing 450 pounds net or in 275 gallon totes containing 2400 pounds net. Bulk quantities are also available.

ADDITIONAL INFORMATION

To place an order or obtain technical information from any location in the continental United States, call toll free:

(800) 848-7659

For additional information, please refer to the Safety Data Sheet (SDS)

Polydyne Inc. • 1 Chemical Plant Road • Riceboro, GA 31323 • tel 800.848.7659 • Fax 912.880.2078 • www.polydyneinc.com

SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **CLARIFLOC™ C-338**

Type of product: Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Processing aid for industrial applications.

Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: POLYDYNE INC
1 Chemical Plant Road
PO BOX 279
Riceboro, GA 31323

Telephone: 1-800-848-7659

Telefax: (912)-884-8770

E-mail address: -

1.4. Emergency telephone number

24-hour emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

C249054

Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components
Contains no reportable hazardous substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. No hazards which require special first aid measures.

Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:
None.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for firefighters

Protective measures:
Wear self-contained breathing apparatus and protective suit.

Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:
Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:
Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Do not contaminate water.

6.3. Methods and material for containment and cleaning up

Small spills:
Do not flush with water.Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:
Do not flush with water.Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:
After cleaning, flush away traces with water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:
None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:
Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves. Be aware that liquid may permeate gloves, frequent change is advised. Suitable gloves can be recommended by the glove supplier. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

c) Respiratory protection:
No personal respiratory protective equipment normally required.

d) Additional advice:
Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance:	Clear to slightly yellow liquid.
b) Odour:	None.
c) Odour Threshold:	Not applicable.
d) pH:	3 - 7 (See Technical Bulletin or Product Specifications for a more precise value, if available)
e) Melting point/freezing point:	< 5°C
f) Initial boiling point and boiling range:	> 100°C
g) Flash point:	Does not flash.
h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
k) Vapour pressure:	2.3 kPa @ 20°C
l) Vapour density:	0.804 g/L @ 20°C
m) Relative density:	1.0 - 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
n) Solubility(ies):	Completely miscible in water.
o) Partition coefficient n-octanol/water (log value):	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	> 150°C
r) Viscosity:	See Technical Bulletin.
s) Kinematic viscosity:	No data available.
t) Explosive properties:	Not expected to be explosive based on the chemical structure.
u) Oxidizing properties:	Not expected to be oxidising based on the chemical structure.
v) Particle characteristics:	Not applicable.

9.2. Other information

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None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/eye irritation:	Slightly irritating.
Respiratory/skin sensitisation:	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.

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Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC50/Danio rerio/96 hours > 100 mg/L
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L
Acute toxicity to algae:	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
Effects on terrestrial organisms:	Exposure to soil is unlikely.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

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Partition co-efficient (Log Pow): < 0

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: ~0

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

Air transport (IATA)

Not classified.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:
Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:
Not concerned.

Section 304 - Reportable Quantity:
Not concerned.

Section 313 (De minimis concentration):
Not concerned.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:
Not concerned.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:
Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:
Not concerned.

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

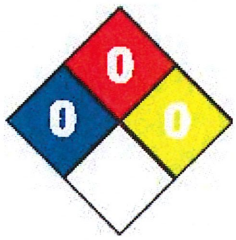
Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	0
Flammability:	0
Instability:	0



HMIS:

Health:	0
Flammability:	0
Physical Hazard:	0
PPE Code:	B

This data sheet contains changes from the previous version in section(s):

SECTION 9. Physical and chemical properties, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms
STOT = Specific target organ toxicity

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 23.01.a

LDCC010A

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Bid OCWUT 19-24
Coagulants and Aids for Water Treatment Plants

Bid Number	**OCWUT 19-24**
Bid Title	**Coagulants and Aids for Water Treatment Plants**
Bid Start Date	**Jan 17, 2024 8:22:35 AM CST**
Bid End Date	**Feb 28, 2024 10:00:00 AM CST**
Question & Answer End Date	**Feb 19, 2024 5:00:00 PM CST**
Bid Contact	**Mark Keesee** **405-297-2765** **mark.keesee@okc.gov**
Bid Contact	**City Clerk** **405-297-2391** **cityclerk@okc.gov**
Bid Contact	**Rebecca Cavnar** **405-297-1525** **rebecca.cavnar@okc.gov**
Bid Contact	**Stephen Krausnick** **405-297-2746** **stephen.krausnick@okc.gov**
Contract Duration	**3 years**
Contract Renewal	**1 annual renewal**
Prices Good for	**30 days**
Standard Disclaimer	**This site and system is hosted by Oklahoma City through BIDSYNC for use of The City of Oklahoma City and its trusts.** **Certain screens and flags may show the name and/or seal of The City; however, such references do not indicate or change the contracting entity.**
Bid Comments	**The City of Oklahoma City is accepting bids for Coagulants and Aids for Water Treatment Plants.**

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Addendum # 1

New Documents	**OCWUT 19-24 Addendum 1.pdf**

Item Response Form

Item	**OCWUT 19-24--01-01 - Group 1, Product Details: Manufacturers ANSI/NSF 60 Certification**
Lot Description	**Group 1, Product Details**
Quantity	**1 each**

Prices are not requested for this item.

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Please enter Yes or No in the Buyer Note field

Item	**OCWUT 19-24--01-02 - Group 1, Product Details: Distributors ANSI/NSF 60 Certification**
Lot Description	**Group 1, Product Details**
Quantity	**1 each**

Prices are not requested for this item.

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Please enter Yes or No in the Buyer Note field

Item	**OCWUT 19-24--01-03 - Group 1, Product Details: Bid Price Per lbs.**
Lot Description	**Group 1, Product Details**
Quantity	**1 pound**
Unit Price	

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
AWWA B-406-06 Ferric Sulfate liquid. Estimated monthly consumption 95,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--01-04 - Group 1, Product Details: Bid price Per lbs. for 55 Gallon Drum**
Lot Description	**Group 1, Product Details**
Quantity	**1 pound**
Unit Price	

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description

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AWWA B-406-06 Ferric Sulfate liquid. Estimated monthly consumption 95,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--01-05 - Group 1, Product Details: Bid price Per lbs. for Totes**
Lot Description	**Group 1, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts** See Bid Packet for Location(s) N/A Oklahoma City OK 73102 **Qty** 1

Description
AWWA B-406-06 Ferric Sulfate liquid. Estimated monthly consumption 95,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--02-01 - Group 1 Product Details: Bid price Per lbs. for Bulk Quantity**
Lot Description	**Group 1 Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts** See Bid Packet for Location(s) N/A Oklahoma City OK 73102 **Qty** 1

Description
AWWA B-406-06 Ferric Sulfate liquid. Estimated monthly consumption 95,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--03-01 - Group 2, Product Details: Bid Price Per lbs.**
Lot Description	**Group 2, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts** See Bid Packet for Location(s) N/A Oklahoma City OK 73102 **Qty** 1

Description
Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--03-02 - Group 2, Product Details: Bid price Per lbs. for 55 Gallon Drum**
Lot Description	**Group 2, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts** See Bid Packet for Location(s) N/A

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Oklahoma City OK 73102
Qty 1

Description
Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--03-03 - Group 2, Product Details: Bid price Per lbs. for Totes**
Lot Description	**Group 2, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--03-04 - Group 2, Product Details: Bid price Per lbs. for Bulk Quantity**
Lot Description	**Group 2, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.

Item	**OCWUT 19-24--04-01 - Group 3, Product Details: Bid Price Per lbs.**
Lot Description	**Group 3, Product Details**
Quantity	**1 pound**
Unit Price	
Delivery Location	**City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Sludge Coagulant and Aids. Estimated monthly consumption unknown various. Enter price per lbs.

Item	**OCWUT 19-24--04-02 - Group 3, Product Details: Bid price Per lbs. for 55 Gallon Drum**
Lot Description	**Group 3, Product Details**
Quantity	**1 pound**
Unit Price	

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Delivery Location **City of Oklahoma City and its Trusts**
See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Sludge Coagulant and Aids. Estimated monthly consumption unknown various. Enter price per lbs.

Item **OCWUT 19-24--04-03 - Group 3, Product Details: Bid price Per lbs. for Totes**
Lot Description **Group 3, Product Details**
Quantity **1 pound**
Unit Price
Delivery Location **City of Oklahoma City and its Trusts**
See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Sludge Coagulant and Aids. Estimated monthly consumption unknown various. Enter price per lbs.

Item **OCWUT 19-24--04-04 - Group 3, Product Details: Bid price Per lbs. for Bulk Quantity**
Lot Description **Group 3, Product Details**
Quantity **1 pound**
Unit Price
Delivery Location **City of Oklahoma City and its Trusts**
See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Sludge Coagulant and Aids. Estimated monthly consumption unknown various. Enter price per lbs.

Item **OCWUT 19-24--05-01 - Group 4, Delivery: Delivery Standard - Monday through Friday**
Lot Description **Group 4, Delivery**
Quantity **1 day**
Prices are not requested for this item.
Delivery Location **City of Oklahoma City and its Trusts**
See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Enter number of days for standard delivery after receipt of purchase order, Monday through Friday in the Buyer Note field.

Item **OCWUT 19-24--05-02 - Group 4, Delivery: Delivery Peak Season**
Lot Description **Group 4, Delivery**

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Quantity **1 day**

Prices are not requested for this item.

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Enter number of days for delivery during peak season after receipt of purchase order, Monday through Friday in the Buyer Note field.

Item **OCWUT 19-24--05-03 - Group 4, Delivery: Delivery Emergency**

Lot Description **Group 4, Delivery**

Quantity **1 day**

Prices are not requested for this item.

Delivery Location **City of Oklahoma City and its Trusts**

See Bid Packet for Location(s)
N/A
Oklahoma City OK 73102
Qty 1

Description
Enter number of days for delivery for emergency events upon receipt of purchase order in the Buyer Note field.

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2024

Mark Keesee
Administrative Specialist
The City of Oklahoma City
Utilities Department
Mark.Keesee@okc.gov

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OCWUT 19-24
Coagulants and Aids for Water Treatment Plants

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(Published in the Journal Record on January 17, 2024, and January 24, 2024)

NOTICE TO BIDDERS

Notice is hereby given that Oklahoma City Water Utilities Trust ("Contracting Entity") will receive electronic bids at the **OFFICE OF THE CITY CLERK, 200 North Walker Avenue, Oklahoma City, Oklahoma 73102** until 10:00:00 a.m., on the 28th day of February 2024, for the following:

Bid Number: **OCWUT 19-24** Title: **Coagulants and Aids for Water Treatment Plants**

The Contracting Entity has partnered with Periscope (formerly BidSync) to accept bids electronically. You are invited to submit a bid electronically through the Periscope system to supply the goods and/or services specified in the electronic bid packet. The Contracting Entity does not provide access to a computer for electronic bidding or electronic bid submission. Bidders must register in advance with Periscope at https://prod.bidsync.com/the-city-of-oklahoma-city in order to submit an electronic bid. The Contracting Entity recommends potential Bidders register and become familiar with the Periscope electronic bidding process in advance of submitting a bid. There is no charge to the Bidder for registering or submitting an electronic bid to the Contracting Entity through Periscope. Instructions on how to get registered to bid through Periscope can be found on The City of Oklahoma City's website at https://www.okc.gov/departments/bidding.

Bids shall be made in accordance with this Notice to Bidder, General Instructions and Requirements for Bidders, Oklahoma Open Records Act and Confidential Information, the Specifications, the Agreement & Non-Discrimination Statement, the Non-Collusion Affidavit, and any other documents which are included in the complete electronic bid packet. The Agreement must be completed, signed, and submitted electronically through Periscope for the bid to be valid.

Bids timely submitted electronically through Periscope shall be opened at the time stated above or later in the City Clerk's Conference Room, located on the 2nd floor of the Municipal Building. The Periscope system does not allow bids to be submitted after the above stated date and time. There will be no exceptions to this policy. All bids shall remain on file at least 48 hours before an Agreement shall be made and entered.

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GENERAL INSTRUCTIONS AND REQUIREMENTS FOR BIDDERS

THESE INSTRUCTIONS, REQUIREMENTS AND ANY SPECIAL INSTRUCTIONS CONTAINED IN THE SPECIFICATIONS ARE A PART OF THE TERMS AND CONDITIONS OF THE BIDDER'S IRREVOCABLE BID AS A FIRM OFFER. ANY EXCEPTIONS TO THESE INSTRUCTIONS, REQUIREMENTS OR SPECIFICATIONS MUST BE SPECIFIED AND SUBMITTED WITH THE BIDDER'S BID. THIS CAN BE ACCOMPLISHED BY SUBMITTING AN ALTERNATE OFFER, IF AVAILABLE ON THE BID, OR BY ENTERING INFORMATION INTO THE "NOTE TO BUYER" FIELD. A BIDDER MAY ALSO SUBMIT EXCEPTIONS BY UPLOADING A SEPARATE DOCUMENT LABELED "EXCEPTIONS" INTO THE PERISCOPE SYSTEM. FAILURE TO INDICATE ANY EXCEPTIONS WILL BE REGARDED AS FULL ACCEPTANCE OF THE REQUIREMENTS, INSTRUCTIONS, AND SPECIFICATIONS CONTAINED IN THIS BID PACKET AND ANY OTHER BID DOCUMENTS RELATED TO THIS BID.

1. **EXAMINATION BY BIDDERS:** All Bidders must examine the specifications, drawings, schedules, special instructions and these general instructions and requirements prior to electronically submitting any Bid/Pricing Agreement/Contract. Failure to examine is at the Bidder's own risk as Bidder will be held to the terms, conditions and requirements therein.
2. **SUBMISSION OF FORMS REQUIRED FOR PRICING AGREEMENT/CONTRACT AWARD:** All bids must be completed electronically, on the forms provided by the Contracting Entity through the electronic bidding system. Bids will not be considered unless the Bid/Pricing Agreement/Contract form is completed, signed and submitted by the Bidder in the electronic bidding system. A Letter of Authorization should also be attached and submitted when the Bidder is not authorized by statute and the Bidder's organizational and establishing documents to sign and bind the Bidder to the Bid/Pricing Agreement/Contract documents. The Anti/Non-Collusion Affidavit must be executed by the Bidder or an authorized agent and notarized. The notarization must contain:
   (a) The notary's signature (electronic signature);
   (b) Jurisdiction where notarization took place (i.e., State of__, County of__);
   (c) Date of notarization;
   (d) The notary's commission expiration date;
   (e) The notary's commission number (Oklahoma);
   (f) The notarial seal (the notary seal is not required for electronic notarization); and
   (g) Comply with all other applicable laws. The anti/non-collusion affidavit must be submitted electronically with the electronic bid packet.
3. **SUBMISSION OF BIDS ELECTRONICALLY TO THE CITY CLERK/SECRETARY:** Bids must be submitted electronically through Periscope and shall be opened at the time stated in the Notice to Bidders, <u>or later,</u> in the City Clerk's Conference Room, located on the 2nd floor of the Municipal Building. The Periscope system does not allow bids to be submitted after the deadline. There will be no exceptions to this policy. All bids shall remain on file at least 48 hours thereafter before a Pricing Agreement/Contract shall be made and entered into thereon.
4. **DESCRIPTIVE TERMS:** Unless the term "no substitute" is used, the use of brand name, manufacturer, make, or catalog designation in describing an item does not restrict Bidders to that particular brand name, etc. The term is simply to indicate the type, character, quality and/or performance equivalence of the item desired. However, the proposed substitution item must be of such character, quality and/or performance equivalence as indicated in the specifications. A proposed substitute item must include complete data as to the manufacturer's name, type, model number, any descriptive bulletins and specifications. This data can be uploaded electronically through the electronic bidding system.
5. **EXCEPTIONS:** Any exceptions or variances to these instructions or specifications must be submitted with the Bidder's bid. This can be accomplished by submitting an alternate offer, if available on the bid, or by entering information in the "Note to Buyer" field. A Bidder may also submit exceptions by uploading a separate document labeled "Exceptions" into the Periscope system. Failure to indicate any exceptions will be construed to mean that the Bidder offers to furnish the exact commodity as described in the bid specifications and as full acceptance of the requirements, instructions, and specifications contained in this bid packet and any other bid documents related to this bid.
6. **UNIT PRICES:** A unit price for each unit bid must be shown and include any applicable taxes, delivery, and packaging and/or packing, if any, unless otherwise specified. If there is an estimated quantity stated as such in the specifications, the estimate is not a guarantee of the quantity which may be purchased. When the quantity in the Periscope system is listed as "1", Bidder shall bid the per individual unit price. The Contracting Entity may purchase one or more bid items at any given time throughout the term of the Bid/Pricing Agreement/Contract. The Periscope system will calculate the total based on the quantity requested by the Contracting Entity and the price entered by the Bidder. The Periscope

system will calculate the bid price based on the quantity and price. Items bid as an estimated quantity will be awarded on a "no guarantee" basis. Prices shall be extended in decimals, not fractions, and shall include transportation and delivery charges, prepaid by the Bidder to the destination specified in the special instructions of the specifications.

7. **EXEMPTIONS FROM CERTAIN TAXES:** The purchase of certain goods or services by the Contracting Entity is exempt from the payment of excise, transportation, use, and sales tax imposed by the federal, state and/or city governments. Such taxes must not be included in the bid prices. Any taxes that are not exempt must be included in the bid price. No additional payment or compensation will be made for taxes.
8. **PAYMENTS AND DISCOUNTS:**
   (a) Payment for goods and services as specified in the Bid/Pricing Agreement/Contract shall be processed promptly after completion of delivery and acceptance of items and after receipt from Bidder of properly prepared invoice(s) and/or notarized claim voucher(s), if applicable. Purchases may be made by certain City or Trust employees using a purchasing card. Employees of Contracting Entity are required, when possible, to use a purchasing card for purchases under the amount of $5,000 for a single transaction. For single transactions over $5,000, the Bidder may request payment be completed by issuance of a purchase order. Processing fees may not be added when a purchasing card is used. The bid price shall cover any fees a bidder may incur.
   (b) Discounts for prompt payment will not be considered in bid evaluations, unless otherwise specified. Discounts offered by the Bidder will be taken, however, if payment is made within the discount period.
   (c) Late charges cannot be assessed against Contracting Entity.
9. **LATE INVOICES:** If the purchase order indicates that the purchase is being made with City funds, all unpaid invoices pertaining to this Pricing Agreement/Contract must be recorded in the Finance Department, Accounts Payable Section, or in the Office of the City Clerk on or before September 30 for all debts incurred during the prior fiscal year (July 1 through June 30) or said invoice shall be void and forever barred. (*See* 62 Okla. Stat. 2010 § 310.4).
10. **DELIVERY:**
   (a) All bid prices quoted shall be based on delivery F.O.B. Oklahoma City, Oklahoma or to any points located within the municipal corporate limits (unless otherwise stated in the bid specifications) with all charges prepaid to the actual point of delivery.
   (b) Bids must show the number of days required for delivery under normal conditions. Unrealistically short or long delivery promises may cause bids to be rejected. A successful Bidder is required to keep the purchasing department advised at all times of the status of the order and delivery. All goods or services shall be delivered within thirty (30) days from the date of the award of the Bid/Pricing Agreement/Contract, unless specified otherwise.
11. **AWARD OF PRICING AGREEMENT/CONTRACTS:** The Contracting Entity reserves the rights to: award by item, groups of items or all items of the bid; to reject any or all bids in whole or in part; and, waive technical defects, irregularities and/or omissions.
12. **PERFORMANCE BONDS:** If required by the specifications, the successful Bidder must post the performance bond, a certified or cashier's check in the amount required prior to award of Bid/Pricing Agreement/Contract.
13. **PATENTS:** The Bidder agrees to indemnify and save harmless the Contracting Entity, including any of Contracting Entity's employees, the purchasing agent and assistants from all suits and actions of every nature and description brought against the Bidder and/or any assistants because of, or for the use of, patented or licensed appliances, products, or processes. The Bidder shall pay all royalties and charges which are legal, and equitable evidence of such payment or satisfaction shall be submitted upon request of the Contracting Entity, as a necessary requirement in connection with the final execution of any Bid/Pricing Agreement/Contract in which patented or licensed appliances, products, or processes are to be used.
14. **TERMINATION:**
   (a) The performance of services and/or the delivery of items under any Bid/Pricing Agreement/Contract may be terminated by the Contracting Entity, in whole or in part, whenever it is determined to be in the best interest of the Contracting Entity.
   (b) Any such termination will be affected by delivery to the Bidder of a termination notice specifying the extent to which performance or services and/or delivery of ordered commodities is terminated, and the date the termination becomes effective.
   (c) After receipt of a termination notice, the Bidder shall stop performance of services and/or accept no further orders under the Pricing Agreement/Contract.
15. **COMPLIANCE WITH APPLICABLE LAWS:** All Bidders must comply with all applicable federal, state or local laws and regulations, including Title VI and all provisions of the Civil Rights Act of 1964 42, U.S.C. §§ 2000d, -et seq.
16. **SELF-INSURED:** The Contracting Entity is self-insured for its own negligence. The liability of the Contracting Entity for acts of negligence are limited and subject to the Governmental Tort Claims Act, 51 O.S. §§ 151, *et seq*.

17. **RIGHT TO AUDIT:** The Contracting Entity shall at all times have the right to examine books, papers and records of the successful Bidder relative to all aspects of the Bid/Pricing Agreements/Contracts awarded as a result of this bid to confirm Bid/Pricing Agreement/Contract compliance. Failure to provide the requested information may result in termination of the Bid/Pricing Agreement/Contract. This right to audit only affects Bid/Pricing Agreement/Contract compliance as a result of this bid and does not apply to Bidder records beyond the scope of the Bid/Pricing Agreement/Contract.
18. **REFERENCES:** The Contracting Entity has the right to request references from Bidders.

19. **BID EVALUATION:** Bids will be evaluated based upon the lowest overall cost to the Contracting Entity and a Bidder's responsiveness to the requirements of the specifications. The Contracting Entity retains the right to waive minor deficiencies of specifications, technicalities, or informalities in a bid, provided that the best interest of the Contracting Entity would be served without prejudice to the rights of other Bidders.

OKLAHOMA OPEN RECORDS ACT AND CONFIDENTIAL INFORMATION

All materials submitted to The City of Oklahoma City or its Trusts pursuant to this Bid or Proposal potentially become subject to the mandates of the Oklahoma Open Records Act, 51 Okla. Stat. §§ 24A.1. *et seq*. The purpose of this Act is to ensure and facilitate the public's right of access to and review of government records so they may efficiently and intelligently exercise their inherent political power. Almost all "records," as that term is defined in the Act, may be disclosed to the public upon request. Except where specific state or federal statutes create a specific and express exemption or confidential privilege, persons who submit information to public bodies have no right to keep this information from public access nor have a reasonable expectation that this information will be kept from public access.

If you believe that any of the information you have submitted to The City or its Trusts pursuant to this Bid or Proposal is exempt or confidential under a specific state or federal statute, and therefore not subject to public access under the Oklahoma Open Records Act, you must comply with the following:

1. Place said documents/records in a separate electronic file attachment marked "Confidential". DO NOT label your entire Bid or Proposal as "Confidential" – label only those portions of the Bid or Proposal that you feel are exempt or are made confidential by state or federal law as "Confidential".
2. For each such document for which you are claiming an exemption or a confidential privilege, identify the federal and/or state law that creates said privilege, e.g., for trade secrets, *see* 21 O.S. § 1732 (Larceny of Trade Secrets) and the Uniform Trade Secrets Act, 78 O.S. §§ 85, *et seq.*.

Should an Open Records request be presented to The City or its Trusts requesting information you have identified as "Confidential," you will be responsible for defending your position in the District Court, if needed.

If you fail to identify any records submitted as part of your Bid or Proposal as "Confidential", you are agreeing that said records are not exempt or confidential and are subject to public access. Upon receipt of a request by a third party to review or copy records properly identified as "Confidential," you will be notified of the request and thereby given an opportunity to immediately enforce and protect your rights by initiating an action in a court of competent jurisdiction. Should you fail to timely bring an action to enforce your rights, then the requested records will be released by The City or its Trust based upon its determination of the application of the Oklahoma Open Records Act.

SPECIFICATIONS

INTENT OF CONTRACT

The Oklahoma City Water Utilities Trust (OCWUT), "Contracting Entity" will accept electronic bids for Coagulants and Aids for Water Treatment Plants.

Bid Timeline

Bid release date	January 17, 2024
Final bid question accepted	February 15, 2024, at 5:00 pm
Final bid question answered	February 19, 2024 at 5:00 pm
Bid closes	February 28, 2024, at 10:00 am

CONTRACTING ENTITY

The term "Contracting Entity" as used throughout these specifications shall mean the Oklahoma City Water Utilities Trust (OCWUT). However, should The City of Oklahoma City or a PUBLIC TRUST of which The City of Oklahoma City is Beneficiary, choose to avail itself of goods or services from the resultant pricing agreement(s)/contract(s), the contracted vendor(s) will honor the terms and conditions, including price, of the pricing agreement(s)/contract(s).

SCOPE OF BID/PRICING AGREEMENT/CONTRACT

The bidder shall furnish and supply the item(s)/service(s) in accordance with the terms, conditions, and provisions set forth herein.

The Contracting Entity reserves the right to award this contract to a single vendor or to multiple vendors, whichever is deemed to be in the Trust's best interest. You may bid on some or all items. *If you choose not to bid on one of the items and/or services, respond by indicating, "NB" in the space provided.*

BID/PRICING AGREEMENT/CONTRACT PERIOD

The pricing agreement/contract shall be effective for a period of three (3) years, as approved by the Contracting Entity, with one (1) renewal option for a period of three (3) years.

The Bidder's performance will be evaluated on an ongoing basis during the duration of this contract. Based on these evaluations, the Contracting Entity's General Manager and/or appointed designee will determine if any problems exist. The following criteria will be applied in the contract evaluation performance process:

- The ability, capacity, and skills utilized by the contracted Bidder in the performance of the contract and providing the services required;
- Whether the contracted Bidder performed the requirements of the contract in providing the service promptly, or within the time specified, without delay or interference;

- The quality, availability and adaptability of the supplies, materials, and repair parts furnished to the particular use required.

BID/PRICING AGREEMENT/CONTRACT RENEWAL OPTION

Should the Contracting Entity desire to renew the pricing agreement/contract, a written notice shall be furnished to the contracted bidder prior to the expiration date of the pricing agreement/contract. The contracted bidder will indicate on the notice whether to accept or decline renewal of the contract, agreeing to continue pricing agreement/contract performance for an additional renewal option.

Upon receipt of the Contracting Entity's preliminary notice, the Bidder shall, if desired, submit a written agreement to continue Bid/Pricing Agreement/Contract performance for an additional three-year period.

Should the Contracting Entity exercise this option for renewal, the Bid/Pricing Agreement/Contract as renewed shall be deemed to include this option provision except that the total duration of this Bid/Pricing Agreement/Contract, including any renewals, shall not exceed six years without approval of the Contracting Entity.

In all cases Bid/Pricing Agreement/Contract renewals must be approved by the Contracting Entity.

ORDER OF PRECEDENCE

In the event of an inconsistency between provisions of this Bid/Pricing Agreement/Contract, the inconsistency shall be resolved by giving precedence in the following order: (i) Bid/Pricing Agreement/Contract articles, (ii) Technical Specifications, (iii) Specifications, (iv) Notice to Bidders, (v) General Instructions and Requirements for Bidders, (vi) other requirements provided by the Contracting Entity in the bid packet, then (vii) attachments, notes, and exceptions by Bidder.

COST ADJUSTMENT TERMS

Prices shall remain firm throughout the first twelve months of the contract period. At the request of the bidder, unit prices can be adjusted annually based on the year-over-year increase or decrease in the U.S. Bureau of Labor's Consumer Price Index, South Region. To find the CPI-U (South Region, All Urban Consumers), go to www.bls.gov/cpi. Charts are available on this website to show CPI for the previous 10 years.

For purposes of calculating an adjustment for the ensuing year, the base rate for the adjustment shall be the Target unit cost and labor rates in effect on the last day of the previous twelve months of the Agreement. Adjustments to the unit prices will be made only in units of one cent ($0.01).

Cost adjustments are calculated in the following manner:

New Unit Price = Existing unit price(s) * (((CPIn – CPIo)/CPIo) + 1)

Where, CPIn = Consumer Price Index-U (All Urban Consumers), South Region, all items for the calendar month and year of the adjustment.

CPIo = Consumer Price Index-U (All Urban Consumers), South Region, all items for the previous calendar month and year.

A valid written request consists of the following:

- Letter requesting price increase(s) must be submitted on your company letterhead along with the combined CPIn and CPIo chart from www.bls.gov/cpi.
- Signed by an officer or someone authorized to execute contracts on company's behalf
- Reference the assigned contract number
- Reference the Contracting Entity's bid number
- Reference the title of the contract (e.g. Hefner Water Treatment Plant – Emergency Generators, etc.)
- Must be submitted to: The City of Oklahoma City, Utilities Department, Contracts Administration Section, 420 W. Main Street, Ste. 500, Oklahoma City, OK 73102. Requests emailed to ww-procurement@okc.gov are acceptable.

ESTIMATED ANNUAL REQUIREMENTS (NO GUARANTEE)

The purchase of any such item or quantity is not guaranteed. Any offer conditioned upon a promise by the Contracting Entity to purchase a minimum or definite quantity of such an item will be rejected. The bidder agrees to furnish all quantities ordered by the Contracting Entity during the contract period.

When a contracted bidder has been awarded and is designated as the primary bidder, the Contracting Entity agrees to place all orders with the contracted Bidder for all requirements for those items shown in the price schedule, as awarded, except as follows:

Quantities of items needed under conditions of emergency or public exigency as approved by the OCWUT General Manager or designee.

Quantities of items obtainable from State contracts, as approved by the OCWUTGeneral Manager or designee.

Quantities of items where federal funds are involved, and other actions are warranted for federal regulatory compliance purposes.

Quantities of items awarded under specific and separate contracts.

Quantities of items which otherwise are determined to be outside the general scope and intent of this contract.

When multiple contractors have been awarded contracts (multiple award), the Contracting Entity agrees to place all orders for the particular item or group of items, as shown on the price schedule, for which the contractor has been determined to be uniquely capable of supplying, as awarded, except as provided for in instances stated above.

If requirements for any awarded items do not materialize for the quantity estimated in the applicable price schedule, such failure shall not constitute grounds for equitable adjustment or additional compensation.

There is no obligation to purchase any items from this pricing agreement, and purchases made in future fiscal years or other contract periods are subject to future appropriations and availability of funds.

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DELIVERY SCHEDULE

Any deliveries to the Contracting Entity shall be delivered **freight prepaid F.O.B. Destination-inside delivery**, Oklahoma City, Oklahoma, and to any and all points designated in the bid specifications.

Bidders shall specify their proposed delivery schedule for the requested materials on Technical Specifications (Bid Form A). If no alternative is proposed on the price schedule sheet, the awarded bidder(s) shall be expected to meet the stated delivery time of ten (10) calendar days after receipt of a delivery request from the Contracting Entity and 24 hours for emergency deliveries. An emergency delivery may be necessary from time to time in order to prevent the Contracting Entity from running out of a commodity used in the water treatment process within the next 24 hours. The Contracting Entity will endeavor to minimize the number of emergency deliveries. The Contracting Entity shall not be held liable for any and all damages sustained by the contracted bidder for delivery of materials awarded by contract.

Delivery of materials to the Contracting Entity without a purchase order document, purchase order number or purchasing card reference name and numbergiven at the time the order is placed shall constitute an unauthorized purchase.

DELIVERY SCHEDULE

Bidders shall specify their proposed delivery times for the requested goods and/or services in the line item area of the electronic bidding system. If no alternative is proposed, the awarded Bidder(s) shall be expected to meet the stated deadline.

Bidder's delivery schedule shall be an important criterion in the evaluation of bids and recommendations for contract awards. The Bidder shall be required to deliver materials and supplies as specified in their bid after receipt of a purchase order from the Contracting Entity.

Specific Delivery Requirements

Deliveries of bulk chlorine shall be via tanker truck and are not to exceed 20 tons per tanker. **All shipments shall be accompanied by certified weight tickets and delivery ticket bill of landing.**

Prices quoted must be for deliveries FOB inside delivery to the specified delivery point. The risk from any cause shall be borne by the Bidder until actual delivery and acceptance by the City. Delivery of bulk chlorine purchased under these specifications shall be made between the hours of **7:30 a.m. and 2:00 p.m.**, **Monday through Friday**, as and when specified by water treatment plant personnel. Plant personnel will determine the inventories and order on an as needed basis. Although plant personnel will endeavor to place all orders four (4) days in advance, the supplier must be able to provide 24-hour emergency deliveries upon request.

The delivery location(s) are as follows:

LOCATION	ADDRESS	CONTACT
Draper Water Treatment Plant	13700 S. Douglas Blvd., Oklahoma City, OK. 73165	Plant Manager (405) 297-2841
Hefner Water Treatment Plant	3827 W. Hefner Road Oklahoma City, OK. 73120	Plant Manager (405) 297-3260

Inspection and Acceptance at Destination

Final inspection and acceptance shall be at destination. Although source inspection by the Contracting Entity is not anticipated under this contract, the provisions of this article shall in no way be construed to limit the rights of the Contracting Entity to otherwise conduct source inspections which it deems to be appropriate. The Contracting Entity reserves the right to test any load prior to the transfer and any load tested by the Contracting Entity that fails to comply with the Specifications shall constitute grounds for rejection of the load or for equitable adjustment to the Contracting Entity.

Security

The Bidder will be responsible for following all security procedures related to the delivery of chemicals at the plants. The Bidder may be required to sign a non-disclosure affidavit before receiving a copy of these procedures. ***Upon contract award the Bidder must contact the water treatment plants for security delivery procedures.***

Safety/Responsibility

The contracted bidder is to assure their employees are work and safety-trained, knowledgeable of all job-related hazards and must document training of their employees. The contracted bidder must assure their employees follow all safety rules; and must report to plant personnel any hazards and/or occurrences.

Security

The contracted bidder will be responsible for following all security procedures related to the delivery of chemicals at the plants. The contracted bidder may be required to sign a non-disclosure affidavit before receiving a copy of these procedures. **Upon contract award the contracted bidder must contact the Water Treatment Plants for security delivery procedures**.

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Spillage/Clean Up

Contracted bidder will be responsible for proper clean up and disposal of any delivery chemical spills. An estimate of spillage will be deducted from the contracted bidder's invoice. The Contracting Entity shall not be held liable for any and all damages sustained by contracted bidder(s) for delivery of materials awarded by contract. The contracted bidder shall be liable to the cost of containment, clean up, and returning the site to the pre-spill condition.

Contracted bidder shall be responsible for connection of hoses and off-loading the chemical into City owned tanks. For safety reasons, an operator (City Employee) will be present during connection of hoses for bulk filling. The contracted bidder's driver shall be properly trained in emergency response and recovery. Additionally, the driver shall be considered the first responder in case of a leak or spill during the unloading procedure. If during the delivery and unloading the contracted bidder causes chemicals to be spilled or otherwise improperly discharged from storage vessels, piping, hoses, and connections, the contracted bidder shall contain, clean up, and return the site to the condition existing prior to the spill. The contract bidder shall be responsible for immediately reporting any chemical losses/spill due to loading to the appropriate State and Federal regulatory agency.

Commercial Packaging

Packaging and shipping of product shall conform to the current regulations of the U.S. Department of Transportation (DOT) and other applicable federal, state, and local requirements. Preservation, packaging, packing and marking will be in accordance with Bidder's best commercial practice, to provide adequate protection against shipping damage. **All tanker inlets and outlets must be secured by seals**.

SAFETY DATA SHEETS

Any Contractor supplying goods or materials to The City of Oklahoma City or a related Trust that require a Safety Data Sheet (SDS) will furnish the required sheet or a composite concentration list in one of the following manners:

a. Submitted as part of the proposal document
b. Submitted prior to agreement/contract award
c. Submitted with the product invoice
d. Submitted at the request of The City or Trust

In all instances, the Contractor shall furnish the safety data sheets with the products at delivery, and shall comply with all local, state and federal laws providing for identification of materials transported to or from The City or related Trust. The appropriate proposal number, agreement/contract number, delivery ticket number, or invoice number shall be clearly marked on the safety data sheet or the composite concentration lists. Information regarding Safety Data

Sheets can be found on-line at https://www.osha.gov/Publications/OSHA3514.html. Any question regarding this requirement should be directed to the following address:

The City of Oklahoma City
Risk Management Division
420 W. Main Street, Suite 630
Oklahoma City, Oklahoma 73102
Attn: Environmental Specialist

PAYMENT METHODS

The ordering departments will utilize purchase order numbers for ordering the goods/services they require as the need arises during the pricing agreement/contract period. The Contracting Entity shall not be held liable for any and all damages sustained by any contractor for delivery of goods or services. The Contracting Entity agrees only to pay vendors for goods/services awardedby pricing agreement/contract if there is delivery and acceptance of the materials by the Contracting Entity and the delivery is accompanied by an authorized purchase order. Services performed for any Oklahoma City department without a purchase order document, purchase order number, or purchasing card reference name and number given at the time the order is placed shall constitute an unauthorized purchase.

PAYMENT/INVOICE

Payments will be processed promptly after completion of delivery of ordered items and after receipt of properly prepared invoices.

FOR ORDERS PLACED BY PURCHASE ORDER: The original invoice must be mailed directly to Oklahoma City Water Utilities Trust, Attn: Attn: Finance Operations, 420 West Main, Suite 500, Oklahoma City, OK 73102. In addition, invoices and payment correspondence may be emailed to wwfinancepayables@okc.gov. If invoices are e-mailed, a paper copy should not be mailed. This information is printed on the front of each purchase order. Copies of invoices may be sent to other addresses upon request. However, if the original invoice is sent to any other address, payment will be delayed, or may not be processed at all. Should another trust or government entity be using this contract they may request a different invoice address.

Invoices must contain the following information:

a. Bidder's name and address
b. Ship to address (department name)
c. Purchase order number - **MUST BE INDICATED ON THE INVOICE**
d. Itemization of each item purchased to include:
    i. description/stock number
    ii. unit price
    iii. quantity
    iv. unit of issue (each, box, dozen, pound, etc.)
    v. total price
e. Total amount of invoice
f. Date of delivery

***Invoices should not reflect any outstanding backorders.**

INSURANCE REQUIREMENT

Liability and Property Damage Insurance: The Contractor assumes all risk incident to or in connection with its purpose to be conducted herein under and shall indemnify, defend and save The City of Oklahoma City and its' Trusts harmless from damage or injuries of whatever nature or kind to persons or property arising directly or indirectly out of the Contractor's operations andtransportation of the City's equipment to and from repair site regardless of fault and arising from acts or omissions of its employees regardless of fault and shall indemnify, defend, and save harmless The City of Oklahoma City and its' Trusts from any penalties for violation of any law, ordinance or regulation affecting or having application to said operation.

In this connection, the Contractor shall carry Worker's Compensation in accordance with State Laws and General Liability Insurance in the following amounts:

> **Property Damage Liability** - Limits shall be carried in the amount of not less than twenty-five thousand dollars ($25,000) to any one person for any number of claims for damage to or destruction of property, including but not limited to consequential damages, arising out of a single accident or occurrence.
>
> **All Other Liability** - In the amount not less than one hundred seventy-five thousand dollars ($175,000) for claims including accidental death, personal injury, and all other claims to any one person out of a single accident or occurrence.
>
> **Single Occurrence or Accident Liability** - In an amount not less than one million dollars ($1,000,000) for any number of claims arising out of a single occurrence or accident.
>
> **Automobile Liability Insurance** – The contractor shall maintain insurance coverage as to the ownership, maintenance, and use of all owned, non-owned, leased or hired equipment when said equipment is utilized to meet the requirements of this pricing agreement/contract.

The insurance policies shall be issued by a company authorized to do business in the state of Oklahoma and acceptable to The City of Oklahoma City and its' Trusts. The City shall be furnished with a Certificate of Insurance evidencing all the above-referenced requirements and shall state that such insurance shall not be changed or canceled without ten days prior written notice to The City of Oklahoma City. All policies shall be in the form of an "occurrence" insurance coverage or policy. If any insurance is written in a "claims made" form, the Contractor shall also provide tail coverage that extends a minimum of two years from the expiration of the Contract. Certificates of Insurance shall be delivered to The City of Oklahoma City prior to contract award. **The City of Oklahoma City shall be listed as the Certificate Holder. The policy description shall state the following: "The City of Oklahoma City and OCWUT are additional insured on all policies as required by the contract."**

Unless otherwise approved by the City prior to contract award, self-insured retentions will not be accepted unless accompanied by a bond or irrevocable letter of credit guaranteeing payment of the losses, related investigations, claim administration, or defense expenses not otherwise covered by the Contractor's self-insured retention.

LIQUIDATED DAMAGES

If the Contractor fails to deliver the product within the specified delivery schedule as bid by the Contractor, it is understood the Contractor hereby agrees to liquidated damages of three hundredths percent (0.03%) of the invoiced price for each intervening calendar day greater than the delivery date specified in the bid and incorporated in this contract. The General Manager or designee may waive liquidated damages based on extenuating circumstances beyond the control of the Contractor. The Contractor shall notify the Contracting Entity if the delivery schedule cannot be met.

NOTICE OF NONCONFORMANCE

Nonconformance of carbon dioxide supply and/or shipment shall be based on a certified test report and/or documentation from the contracted bidder as to the quality of carbon dioxide to beshipped; or analytical tests performed by a certified laboratory, on either a sample provided bythe supplier or collected by the Contracting Entity that shows the carbon dioxide shipment does not meet the requirements of this specification.

If the carbon dioxide delivered does not meet the chemical, physical, safety, or security requirements of this specification, the Contracting Entity shall notify the contracted bidder of this nonconformance and seek appropriate retest and/or material replacement within ten (10) days. The contracted bidder agrees to adjust the invoiced price by fifteen percent (15%) and/or reject each carbon dioxide supply and/or shipment that is determined to be in nonconformance.

WARRANTY

All bidders shall guarantee that the materials and supplies they propose to furnish shall be in accordance with the manufacturer's specifications and shall perform the functions for which they were designed, manufactured, and proposed by the bidders for use by the Contracting Entity.

The bidder warrants that at the time of delivery, all items furnished under this contract will be free from defects in material or workmanship and will conform to the specifications and all other requirements of this contract. All bidders will furnish with their bid one copy of their warranty applicable to the supplies or equipment to be furnished.

As to any item, which does not conform to this warranty, the contractor agrees that the Contracting Entity shall have the right to reject and return each nonconforming item to the contractor for correction or replacement at the contractor's expense. The Contracting Entity shallalso have the right to require an equitable adjustment in the contract price. This warranty shall be in addition to any other rights of the Contracting Entity. All equipment warranties shall start on the date of installation and will be for the full term of said warranty.

RIGHT TO ACCEPT OR REJECT AND WAIVING OF FORMALITIES

The Contracting Entity reserves the right to reject any or all bids, to waive certain formalities, or to award the contract to the lowest and best bidder depending upon the selection criteria.

WHOLE AGREEMENT

It is expressly agreed by and between the parties hereto that the provisions embodied in the Request for Bids contain all covenants, agreements, obligations, rights, duties, and stipulations agreed upon by the parties hereto upon the execution hereof. No statements or representations, oral or written, not incorporated herein shall be a part of the Agreement.

INDEPENDENT CONTRACTOR

Bidder is, and shall always remain, an independent contractor with respect to activities and conduct while engaged in the performance of services for the Contracting Entity under this contract. It is expressly understood and agreed by the parties that Bidder shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant, or employee of Contracting Entity or the City of Oklahoma City; that Bidder shall have exclusive control of and the exclusive right to control the details of the work and services performed hereunder and all persons performing the same; that Bidder shall be solely responsible for the acts and omissions of its officers, agents, employees, and contractors, if any; and that nothing herein shall be construed as creating a partnership or joint venture between the Contracting Entity, Oklahoma City and the Bidder.

INDEMNIFICATION

To the maximum extent permitted by law, the Contractor shall be liable for and shall hold the City of Oklahoma City or any of its trusts harmless from all damage or injury caused to persons or property arising out of the performance of any contract resulting from this Request for Bid. The Contractor shall agree to assume the defense of the City and their officers and employees in all legal proceedings with third parties connected with the vendor’s performance under this Contract, and to pay all expenses, including court costs and reasonable attorney's fees, incurred by OCWUT directly, or indirectly on account of such legal proceedings. The Contractor's obligations hereunder are expressly conditioned upon OCWUT's provision of notification to the Contractor of any pending such claim or suit, OCWUT shall cooperate with the Contractor in its handling of any such claim or suit to the extent their interests do not conflict. In no event shall the Contractor be obligated to indemnify or hold OCWUT harmless with respect to any liability caused by the sole negligence of OCWUT.

The OCWUT is a public trust created pursuant to the laws of the state of Oklahoma with the City of Oklahoma City, a municipality created pursuant to Article 18, section 3 of the Oklahoma Constitution, as its sole beneficiary. The OCWUT expressly reserves all Oklahoma common law and statutorily created and recognized rights and warranties, express and implied. The OCWUT expressly states that neither the OCWUT nor the City of Oklahoma City can or will waive any rights or warranties provided or available under

Oklahoma law. By submitting a bid, the Bidder expressly agrees to comply with all such warranties. The Bidder acknowledges and by submitting a bid agrees that neither OCWUT nor Oklahoma City has or will waive any rights or warranties providedor available under Oklahoma law and that this paragraph will supersede and take precedence over any paragraph, term, or provision to the contrary.

CLARIFICATION

Any explanation, clarification, or interpretation desired by a bidder regarding any part of the solicitation must be requested in writing with sufficient time allowed for a written addendum to reach each bidder before the submission of their bid. Interpretations, corrections, or changes to the solicitation made in any other manner are not binding upon the Contracting Entity, and bidders shall not rely upon such interpretations, corrections, or changes. Oral explanations or instructions given before the award of the pricing agreement are not binding.

Technical questions are to be addressed through the electronic bidding system and the Buyer willrespond electronically and issue addenda, if necessary. These specifications constitute a vital part of the vendor's bid proposal. The proposed bid must be submitted on these specifications and include any addenda. Failure to do so will result in a recommendation of bid rejection.

UNDUE INFLUENCE

Upon advertising this solicitation, no officer, employee, agent, or representative of the bidder shall have any contact or discussion, verbal or written, with any representative of the Contracting Entity (i.e. Trust Officer, City Council member, or City staff) either directly or indirectly throughothers in which the bidder seeks to influence any representative of the Contracting Entity regarding any matters pertaining to this solicitation.

Contacts by the bidder with the Contracting Entity that do not pertain to a solicitation are exempt from this provision. Examples of these exempt contacts are:

- Private, non-business, contacts with the Contracting Entity by the bidder's employeesacting in their personal capacity
- Business contacts outside of this solicitation that the Contracting Entity may have withthe Bidder
- Presentations and/or responses to inquiries initiated by the Contracting Entity
- Pre-bid or pre-proposal conferences
- Discussions with the City procurement officer or departmental contact as outlined in theClarifications section above

If a representative of any bidder submitting a bid violates the foregoing prohibition by contactingany of these parties, such contact may result in the bidder being disqualified from the procurement process.

GENERAL PROVISIONS

The following documents are attached or by this reference incorporated as a part of this pricing agreement/contract:

a. Bid/Pricing Agreement/Contract Form & Non-Discrimination Statement
b. Anti/Non-collusion Affidavit
c. General Instructions and Requirements for Bidders
d. Specifications
e. Oklahoma Open Records Act and Confidential Information

BID AWARD

The Contracting Entity reserves the right to award this contract by line item, by group of items, or all items of the bid; to reject any or all bids in whole or in part, if it is in the best interest of the Contracting Entity. "All or none" type bids will be considered only when it is deemed by the Contracting Entity to be in its best interest.

The Contracting Entity may choose to award contract(s) of a particular item or group of items to one or more contractors. Generally, the contractor(s) will be identified as Primary or Secondary contractors for the items or group of items based on the lowest and best bids(s) for those items or groups of items. From time to time, the Contracting Entity will make a multiple award of a particular item or group of items due to the uniqueness of products or services available based on received bids and the needs of the Contracting Entity.

In the event all bid(s) received for a single item or groups of items exceed the stated delivery requirements, the Contracting Entity reserves the right to consider the bids. In the event of similar/identical bids per line item or group of items, the award may be based on shortest delivery as per response from the vendor's delivery schedule sheet.

Normally, the Contracting Entity will endeavor to procure the materials and/or services only from the Primary vendor. If for any reason(s) the Primary vendor is unable to meet the requirements for the materials and/or services within the contracted period, or in emergency situations, unable to meet the critical needs as required, the Contracting Entity may procure such materials and/or services from the Secondary contracted vendors in that order, to meet its critical requirements.

Award Methodology

It is the Contracting Entity's intention to award based on the bidder's ability to meet the requirements of the specifications, lowest and best unit price; and best delivery schedule.

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TECHNICAL SPECIFICATIONS

Pricing must be submitted through the Line Item area of the electronic bidding system.

The Technical Specifications are attached as a fillable form with Periscope (**Bid Form A**). Bidders must respond to each specification to whether the Bidder can meet the requirements. This form must be filled out in order for a bid to be considered.

Definition

The coagulants chemical covered by these specifications shall comply with the AWWA Standard B-406-06, American National Standards Institute/National Sanitation Foundation's Standard 60 -Drinking Water Treatment Chemicals.

Certification

All chemicals must be "certified to as suitable for contact with or treatment of drinking water by an accredited certification organization in accordance with ANSI/NSF Standard 60, Drinking Water Treatment Chemicals – Health Effects."1

Bidders should attach proof of certification and/or statement of application for certification with their bid. In the vent the Bidder submits "statement of application for certification"; proof of certification when it is received must be submitted to the City of Oklahoma City. Failure to do so may result in the cancellation of the contract.

If there is a manufacturer's change, the contracted Bidder must immediately notify OCWUT and provide the required information that shows that the new material complies with these specifications. Failure to do so may result in the cancellation of the contract.

Where NSF or Underwriters Laboratory Certification is required, the Bidder shall enclose NSF or Underwriters Certification (listing, application or certification). If a vendor is accepted based on an application for Certification, the Certification must be submitted to the City of Oklahoma City once it is received. Failure to do so may result in the cancellation of the contract.

Chemical specifications sheet, i.e., vendor's product specifications sheet (This should contain information for both Technical Specifications and AWWA standard chemical analysis results.)

Current Water & Sludge Application

The coagulants currently used are listed as a reference only.

LOCATION	WATER	SLUDGE
Draper	• Chemtrade Hyper-Ion 3530	• Brentag Bren Floc • TMB 925 E
Hefner	• Brenntag WC-8301	• Brenntag AP-2659 • TMB 925 E

Substitute/Equivalent

Once award has been made, if there are any changes to the approved water application and sludge application, the new substitute/equivalent must be approved by OCWUT or designee and then submitted by Bidder for testing at Bidder's expense. The new substitute/equivalent must meet all performance requirements. To be considered for purchase without amendment of the agreement, list all coagulants offered, through the Line Item area of the electronic bidding system.

Safety/Responsibility

The Bidder is to document training of their employees to assure their employees are work and safety-trained, and knowledgeable of all job-related hazards. The Bidder must assure their employees follow all safety rules; and must report to plant personnel any hazards and/or occurrences.

Each chemical delivery truck has loading hatches; the loading hatches must be sealed upon delivery at the plant. In addition, they must be removed by the driver at the delivery site with an operator, City employee, present before samples are pulled. Any unsealed loads may be refused at no cost to the City.

The successful Bidder must fax or email delivery confirmation with date/time of expected delivery prior to shipment.

Analysis of Chemical Content

Analysis of the chemical content must be submitted through the line item area of the electronic bidding system. The chemical content must not exceed the maximum range specified by OCWUT in the line item area of the electronic bidding.

Coagulants and Aids

Successful Bidder will be responsible for clean up and any delivery chemical spills. An estimate of spillage will be deducted from the Bidder's invoice.

1. Ferric Sulfate (liquid)
   Standard Specification: AWWA B-406-06

   Chemical Content:

Manufactured using	Virgin iron ore
Free Acid as H2SO4 (to maintain pH 2 solution)	Maximum 4.5% as H2SO4
Water Soluble Ferric iron expressed as Fe+++	Minimum 12.0%
Water Soluble Ferrous Iron expressed as Fe++	1.5% Maximum of the 12.0% Fe+++
Water Soluble Ferrous Iron expressed as Fe++	3.0% Maximum in ferric sulfate
Water Insoluble Matter: Insoluble in liquid ferric sulfate	0.1% Maximum

Shipment:

- Approximately 20 – 25 tons in bulk quantity
- A weight certificate must accompany each truck

- Each shipment must include a certified analysis on percentage ferric content and specific gravity from either the manufacturer or supplier
- Each shipment will be analyzed for specific gravity upon arrival. This is to verify ferric sulfate solution shipped

2. Polymers/Polymer Blend

The polymer, coagulant, coagulant aid, flocculant aid, and/or filter aid that works best can only be determined through performance laboratory screening (jar tests) and in plant trials using the water or wastewater to be treated under similar conditions of temperature, etc. Therefore, bids to be received are anticipated a large variety of polymers from various manufacturers.

Prospective Bidders will be allowed during the bid process, to perform jar testing at the three water treatment plants at their expense in order to determine the appropriate polymer to bid. If visits are requested, arrangements can be made by contacting Stephen Krausnick in the Water Quality Division at (405) 297-3800. Successful Bidders will also be allowed to provide a pre-paid shipping method to receive water samples from the three unique water sources to aid in determining the most effective polymer.

The Contracting Entity may elect to purchase limited quantities of product for full scale testing and evaluation of each plant

Polymer will be purchased based upon:

- Need
- Contracted laboratory screening/jar testing
- Contracted plant testing
- Most cost-effective

Shipment:

- Approximately 20-25 tons in bulk quantity
- Minimum of one tote or 55-gallon drums
- A weight certificate must accompany each truck

LETTER OF AUTHORIZATION

THIS LETTER OF AUTHORIZATION MUST BE COMPLETED IF THE ATTACHED LEGALLY BINDING DOCUMENT WAS NOT SIGNED BY THE STATUTORILY AUTHORIZED OFFICER ON BEHALF OF THE CONTRACTING ENTITY.

City of Oklahoma City or related Public Trust:

This letter authorizes _____ to
(PRINTED NAME OF AUTHORIZED AGENT)

sign the attached legally binding document on behalf of_____,
_____ (CONTRACTING ENTITY)
_____.

Sincerely,

_____	_____	_____
Signature of Authorized Agent	Printed Title	Date

_____	_____
Printed Name of Authorizing Office	Email Address of Authorizing Officer

NOTE: If the Contracting Entity is a(n):	
Corporation	The authorizing officer must be: President, Vice-President, Chairperson, or Vice-Chairperson
LLC	The authorizing officer must be: Manager, Managing Member, President, or Vice-President
Partnership	The authorizing officer must be: General Partner
Joint Venture	The authorizing officer must be: An Authorized Officer of Each of the Ventures

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COAGULANTS AND AIDS FOR WATER TREATMENT PLANTS
BID FORM A
OCWUT 19-24
REQUIRED ONLY IF BIDDING FERRIC SULFATE

SPECIFICATIONS	BIDDER'S RESPONSE
1. ANSI/NSF Standard 60?	☐ Yes ☐ No
2. Standard Specifications AWWA B-406-06?	☐ Yes ☐ No
3. Please provide the Manufacturer and Brand Name:	
4. Manufactured using? Virgin Iron Ore	☐ Yes ☐ No
5. Free Acid as H_2SO_4 (to maintain pH 2 solution)? Maximum 4.5% as H_2SO_4	% Max
6. Water Soluble Ferric Iron expressed as Fe+++? Minimum 12.0%	% Min
7. Water Soluble Ferrous Iron expressed as Fe++? 1.5% Maximum of the 12.0% Fe+++	% Max
8. Water Soluble Ferrous Iron expressed as Fe++? 3.0% Maximum in ferric sulfate	% Max
9. Water Insoluble Matter: Insoluble in liquid ferric sulfate? .01% Maximum	% Max
10. Specific Gravity? Range 1.42 to 1.44	Range

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BID/PRICING AGREEMENT/CONTRACT FORM & NON-DISCRIMINATION STATEMENT

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING IN THE ELECTRONIC BID SYSTEM

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

THIS DOCUMENT MUST BE ELECTRONICALLY SIGNED AND SUBMITTED WITH THE BID OR THE BID WILL BE REJECTED

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INSTRUCTIONS: This document MUST be electronically signed and submitted with the bid for the bid to be valid. Failure to electronically sign the this document prior to submitting the electronic bid will result in rejection of your bid. This document constitutes your bid and will be the Pricing Agreement/Contract document under which you are to perform, should your bid be accepted, so it must be properly and completely executed. It is, therefore, essential that you are aware of its terms, as well as those contained in the specifications.

Submit this electronically signed document, along with all accompanying documents:

THIS PRICING AGREEMENT/CONTRACT is made and entered into, by and between _____ hereinafter referred to as "Bidder" and The City of Oklahoma City, a municipal corporation, or a participating Public Trust of which The City of Oklahoma City is Beneficiary hereinafter referred to as the "Contracting Entity."

WITNESSETH:

WHEREAS, the governing body of the Contracting Entity has approved certain specifications and requested by notice that bids be submitted thereon; and

WHEREAS, this document until executed by the Mayor/Chairman of the Contracting Entity constitutes the Bidder's proposal; and

NOW, THEREFORE, that in consideration of the covenants, agreements and representations as hereinafter set forth, it is mutually agreed by the parties that:

1. The Bidder agrees to sell and deliver to the Contracting Entity, the items of material and/or services, specified in the pricing section of the electronic bid submittal, which is attached hereto and made a part of this Pricing Agreement/Contract. List the prompt payment discount, if any, for this agreement in the space provided below:

Discount for Prompt Payment _____ % _____ Days

2. The Bidder expressly warrants that all articles, material, and/or work covered in this Pricing Agreement/Contract will conform to the specifications and electronic bid documents attached to this bid and are hereby incorporated, as if set forth in full herein; and further warrants that the same shall be of good material and workmanship, and free from defects.

3. The Bidder understands that all bids are to be submitted in U.S. dollars at a firm price. Bids submitted in any currency other than U.S. dollars will be rejected.

4. The Bidder also understands that all invoices shall be submitted in U.S. dollars and agrees to accept payment in U.S. dollars as full satisfaction of the invoiced amount.

5. If any of the goods fail to meet the warranties contained in Paragraph 2, above, the Bidder, upon notice from the Contracting Entity, shall promptly correct or replace the same at the Bidder's expense. If the Bidder shall fail to so do, the Contracting Entity may cancel this order as to all such goods, and in addition, may cancel the then remaining balance of this order. After notice to the Bidder, all such goods will be held at the Bidder's risk. The Contracting Entity may, at the Bidder's direction, make available such goods to be returned to the Bidder at the Bidder's

risk, and all transportation charges, both to and from the original destination, shall be paid by the Bidder. Any payment for such goods shall be refunded by the Bidder unless the Bidder promptly corrects or replaces the same at the Bidder's expense.

6. The Contracting Entity agrees to pay to the Bidder the price and amount in accordance with Paragraph 1 above, based on the quantity actually purchased, upon delivery to and acceptance by the Contracting Entity, of the material and/or service[s] above described and upon the filing by the Bidder, and approval by the Contracting Entity, of a verified claim for the amount due.

7. The Bidder agrees, in connection with the performance of work under this Pricing Agreement/Contract:

a. That the Bidder will not discriminate against any employee or applicant for employment, because of race, creed, color, sex, age, national origin, ancestry or disability. The Bidder shall take affirmative action to ensure that employees are treated without regard to their race, creed, color, age, national origin, sex, ancestry or disability. Such actions shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment, advertising, lay-off, termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Bidder agrees to post, in a conspicuous place available to employees and applicants for employment, notices to be provided by the City Clerk/Secretary of the Contracting Entity setting forth the provisions of this section, and;

b. That the Bidder agrees to include this non-discrimination clause in any subcontracts connected with the performance of this Pricing Agreement/Contract.

8. In the event of the Bidder's non-compliance with the above non-discrimination clause, this Pricing Agreement/Contract may be canceled or terminated by the Contracting Entity. The Bidder may be declared by the Contracting Entity ineligible for further Pricing Agreement[s]/Contract[s] with the Contracting Entity until satisfactory proof of intent to comply is made by the Bidder.

9. The risk of loss or damage shall be borne by the Bidder at all times until the acceptance of goods, properly packed, by the Contracting Entity.

10. This Pricing Agreement/Contract, specifications, electronic bid submittal documents and any attachments constitutes the entire understanding and agreement of the parties upon the subject matter hereof. There is no agreement, oral or otherwise, which is not contained in or attached to this Pricing Agreement/Contract. This Pricing Agreement/Contract may not be modified or assigned unless approved in writing and signed by both parties.

11. The parties assume and understand that the variables in the Bidder's cost of performance may fluctuate; consequently, the parties agree that any fluctuations in the Bidder's costs will not alter the Bidder's obligations under this Pricing Agreement/Contract nor excuse performance or delay on the Bidder's part.

12. This Pricing Agreement/Contract shall be inoperative during such period of time that the aforesaid delivery or acceptance may be rendered impossible by reason of fire, Act of God or government regulation. Provided, however, to the extent that the Bidder has any commercially reasonable alternative method of performing this Pricing Agreement/Contract by purchase on the market or otherwise, the Bidder shall not be freed of any obligations hereunder by this clause, even though the goods intended for this Pricing Agreement/Contract were destroyed or their delivery delayed because of an event described above.

13. The shipping or receiving of any goods under this Pricing Agreement/Contract shall not be deemed, or be, a waiver of any right to damages for any prior failure to ship or receive any goods.

14. This Pricing Agreement/Contract shall be governed by the laws of the State of Oklahoma.

15. The Bidder shall be responsible for complying with all applicable federal, state and local laws.

16. If submitting a bid for services, the Bidder certifies that they, and any proposed subcontractors, are in compliance with 25 O.S. §1313 and participate in the status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employment Verification Program (E-Verify) through the Department of Homeland Security and available at www.dhs.gov/E-Verify.

The undersigned individual states that the Bidder will be bound by all components of its bid, the specification, the terms and conditions of the Pricing Agreement/Contract, and the requirements for Bidders.

WITNESS the hands of the parties hereto:

THIS FORM MUST BE ELECTRONICALLY SIGNED AND SUBMITTED WITH THE BID FOR THE BID TO BE VALID

Note: The owner or an officer of the business or corporation may sign this document. A Corporate Seal or a letter of authorization is needed for any other signer. For instance, if a Salesman or Manager signs this form, a letter of authorization or Corporate Seal is to be attached.

Type Name of Authorized Agent

Title of Authorized Agent

Company Name and Address

Zip Code

Telephone Number and Fax Number if any

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

THIS FORM MUST BE ELECTRONICALLY SIGNED AND SUBMITTED WITH THE BID OR THE BID WILL BE REJECTED

C249054

NON-COLLUSION AFFIDAVIT

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING BID

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

The undersigned, of lawful age, being duly sworn, upon oath, deposes and says: That the undersigned has the lawful authority to execute the within and foregoing proposal/bid for, and on behalf of, the Proposer/Bidder; that the Proposer/Bidder has not, directly or indirectly, entered into any agreement, express or implied, with any Proposer/Bidder, having for its object the controlling of the price or amount of such proposal/bid, the limiting of the proposals/bids or the Proposers/Bidders, the parceling or farming out to any Proposer/Bidder or other persons, of any part of the Agreement or any part of the subject matter of the proposal/bid, or of the profits thereof, and that Proposer/Bidder has not and will not divulge the sealed proposal/bid to any person whomsoever, except those having a partnership or other financial interest with the Proposer/Bidder in the said proposal/bid, until after the said sealed proposals/bids are opened.

The undersigned further states that the Proposer/Bidder has not been a party to any collusion: among Proposer/Bidders in restraint of freedom of competition, by any agreement to bid at a fixed price or to refrain from proposing; or with any City/Trust official, City/Trust employee or City/Trust agent as to the quantity, quality, or price in the prospective Agreement, or any other terms of the said prospective Agreement; or in any discussions between the Proposers/Bidders or City/Trust official, City/Trust employee or City/Trust agent concerning the exchange of money or other thing of value for special consideration in the letting of Agreement. The Proposer/Bidder states that it has not paid, given or donated or agreed to pay, give or donate to any City/Trust official, officer or employee of the City or awarding agency, any money or other thing of value, either directly or indirectly, in the procuring of the award of Agreement pursuant to this Proposal/Bid.

Witness the hands of the parties hereto:

The undersigned states that the Proposer/Bidder will be bound by its proposal/bid, the specification, the terms and conditions of the Agreement, and the Requirements for Proposer/Bidders.

➔ ➔THIS FORM TO BE COMPLETED BY THE PROPOSER/BIDDER PRIOR TO AGREEMENT APPROVAL🡐 🡐

Type Name of Authorized Agent/Representative

Title

Company Name

Address

Zip Code

Telephone Number and Fax Number, if any

TO BE COMPLETED BY THE NOTARY:

State of *)
) SSS

County of *)

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[*State and County where notarized must be typed in for bid/proposal to be considered.][SAK1]

Signed and sworn to before me on this	day of	,		by
	[Day]	[Month]	[Year]	[Print the name of the agent/representative who signed above.]

My Commission Number:

[Oklahoma]

Type Name of Notary Public

My Commission Expires:

[Date/Year]

[49 Okla. Stat. 2011 §119]

BIDDER MUST ELECTRONICALLY COMPLETE, SIGN AND NOTARIZE THIS DOCUMENT PRIOR TO SUBMITTING BID

Please be aware that typing in your password acts as your electronic signature, which is just as legal and binding as an original signature.

(See Electronic Signatures in Global and National Commerce Act for more information.)

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BIDDER MUST ELECTRONICALLY COMPLETE THIS FORM PRIOR TO SUBMITTING BID

SUPPLIER CONTACT INFORMATION

The purpose of this form is to assist various City Departments and Trusts with placing orders.

Sales Contact:

Company Name:

Address:

Contact Person:

Email Address:

Telephone Number:

Fax Number:

Billing Contact:

Company Name:

Address:

Contact Person:

Email Address:

Telephone Number:

Fax Number:

Service Contact:

Company Name:

Address:

Contact Person:

Email Address:

Telephone Number:

Fax Number:

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C249054

CONTRACTOR/VENDOR BACKGROUND CHECKS
FOR ACCESS TO OR WORK IN CITY AND TRUST BUILDINGS AND STRUCTURES

The City has established a policy to better secure City and/or Trust owned or operated buildings and structures by requiring background and fingerprint checks of Non-City employees as a condition precedent to entering City and/or Trust buildings and structures. **Contractor/vendor employees and agents who will be required to enter City and Trust buildings and structures to perform a City or Trust Contract will be required to obtain and provide an Oklahoma State Bureau of Investigation background and fingerprint check to the General Service Director or designee before such Contractor/Vendor employee or agent will be permitted to enter City and/or Trust buildings and structures unescorted, at their cost.**

The General Services Director will establish and maintain a list of Non-City employees authorized to enter City and/or Trust buildings and structures. Background and fingerprint records will be maintained by the General Services Department in a secure location within the City's internal network. Said records will be destroyed within sixty days of: 1) final acceptance by the City Council in the case of construction projects, 2) termination or expiration of a procurement pricing agreement, 3) termination or expiration of an engineering, architectural or planner agreement, or 4) termination or expiration of a professional services agreement, unless the Contractor/Vendor has another contractor or agreement. The City reserves the right and authorizes the General Services Director or designee to request and require any such background check be updated and resubmitted. In addition, the Contractor/Vendor acknowledges and agrees that Contractor/Vendor employees and agents will be asked to verify their identity with a government issued picture identification (Driver's License, Passport, Oklahoma issued Identification Card) from the employee or agent's state of residence to enter City and/or Trust owned or operated buildings and structures.

Arrest and/or conviction records may disqualify Contractor/Vendor employees or agents from access or for work in City or Trust buildings and structures.

In addition to the Sex Offenders Registration Act (57 O.S. Section 581 *et seq*.) and the Mary Rippy Violent Crime Offenders Registration Act (57 O.S. Section 591 *et seq*.), the following criteria will be used when reviewing Contractor/Vendor employee or agent requests for building access:

(a) Any unpardoned felony conviction or plea of nolo contendere may be disqualifying, depending on the nature of the conviction and the relation to the scope of the contract or price agreement, except under the following circumstances:

1. Access to City or Trust buildings and structures is contingent upon successful completion of two (2) years of a deferred or suspended sentence (if the sentence exceeds two (2) years), otherwise, after successfully serving the complete sentence. Applicants must submit two (2) favorable written references, one (1) of which must be from an employer with whom the individual has worked within the last two years. Situations where the applicant is unable to provide a written reference from an employer with whom the individual has worked within the last two (2) years will be reviewed by the General Services Director or designee on a case-by-case basis.

2. Applicants convicted of a felony and ordered to serve time with the Department of Corrections may be eligible for access, depending on the nature of the conviction and the position sought, two (2) years from the date of parole. Applicants must submit two (2) favorable written references, one (1) of which must be from an employer with whom he or she has worked within the last two (2) years will be reviewed by the General Services Director or designee on a case-by-case basis.

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(b) Any unpardoned conviction(s) involving the following offenses may be disqualifying: moral turpitude; non-consensual sex acts; distribution or trafficking of controlled dangerous substances; assault and battery with a dangerous weapon, or any offense involving a minor as a victim.

(c) Any applicant who has been convicted of a felony, is a current defendant of a Victim Protection Order (VPO) or has been convicted of a misdemeanor crime of Domestic Violence, will not be considered for facility access. Misdemeanor convictions and traffic violations will be evaluated on an individual basis and may be disqualifying.

(d) Any applicant with a pending felony or misdemeanor charge (other than minor traffic violations) will be ineligible for access, until a final disposition of the charge is made.

(e) Any conviction that has been pardoned or expunged cannot be considered in a facility access decision.

If it is determined that information obtained through the applicant's OSBI criminal records check makes the applicant unsuitable for access to City or Trust buildings or structures, the General Services Department will notify the applicant immediately and provide a copy of any criminal record information.

(a) The applicant will be given seven (7) business days to provide information that negates the validity and relevance of the criminal record. If the information obtained through the criminal records check cannot be invalidated by the applicant, the applicant will be denied facility access.

(b) In determining an applicant's suitability for facility access, the General Services Department will consider information including, but not limited to the following:

1. Relevance of the crime to the proposed work to be performed.
2. Nature of the work to be performed;
3. Recency of the conviction;
4. Sensitivity of and potential risk to accessible information, systems, or equipment; and
5. Potential risk or threat to City employees.

Upon approval of a contract or agreement by the City Council/Trust, the successful Contractor(s)/Vendor(s) will be required to submit to the General Services Department the following completed documents for **each** employee requiring access to City or Trust buildings and structures to fulfill the terms of the contract or agreement.

1. Non-Employee Building Access Request Form – available upon request at (405) 297-2123
2. OSBI Criminal History Information Request Portal Response – available at http://www.ok.gov/osbi/CriminalHistory/CHIRP

OCWUT 19-24 COAGULANTS AND AIDS FOR WATER TREATMENT PLANTS

ADDENDUM NO. 1

Issued: February 5, 2024

To: PROSPECTIVE BIDDERS

From: Mark Keesee, Administrative Specialist MK

Through: Chris Browning, General Manager CB

Department: Utilities Department

The above referenced bid was advertised in the Journal Record and released online through Periscope on January 17, 2024.

The City has determined a need to issue an addendum to OCWUT 19-24 to add the following:

In Section **Specific Delivery Requirements pages 13-14**: Bulk Chlorine is listed in two (2) areas of the paragraph and should be listed as Coagulants and Aids.

In Section **Notice of Nonconformance page 17**: Carbon Dioxide was listed in five (5) areas of the paragraph and should have been listed as Coagulants and Aids.

In line items:
We are wanting pricing for the 55 Gallon Drums, Totes and Bulk Quantity.

1) Group 1, Product Details: Remove Bid Price Per lbs. for Ferric Sulfate Liquid

~~Bid Price Per lbs.~~	~~AWWA B-406-06 Ferric Sulfate liquid. Estimated monthly consumption 95,000 lbs. Enter price per lbs.~~	~~OCWUT 19-24--01-03~~

2) Group 2, Product Details: Remove Bid Price Per lbs. for Polymer/Polymer Blends

~~Bid Price Per lbs.~~	~~Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.~~	~~OCWUT 19-24--03-01~~

3) Group 3, Product Details: Remove Bid Price Per lbs. for Polymer/Polymer Blends

~~Bid Price Per lbs.~~	~~Polymers/Polymer Blends. Estimated monthly consumption 100,000 lbs. Enter price per lbs.~~	~~OCWUT 19-24--03-01~~

APPROVED

Chris Browning

Chris Browning, General Manager

C249054

Question and Answers for Bid #OCWUT 19-24 - Coagulants and Aids for Water Treatment Plants

Overall Bid Questions

Question 1

May I get the current price for Ferric Sulfate? **(Submitted: Jan 19, 2024 9:37:03 AM CST)**

Answer

- We are paying $296.25 per ton for Ferric Sulfate. **(Answered: Jan 19, 2024 1:09:32 PM CST)**

Question 2

Please review the "Specific Delivery Requirements" section. The current section only refers to Bulk Chlorine Deliveries and not the delivery of Coagulants and Aids. Are there "Specific Delivery Requirements" for the Coagulants and Aids that should be noted in this section? **(Submitted: Jan 26, 2024 1:31:36 PM CST)**

Answer

- See Addendum 1 **(Answered: Feb 5, 2024 4:03:10 PM CST)**

Question 3

Please review the "Notice of Nonconformance" section. The current sections refers specifically to Carbon Dioxide only. Will this section be revised to refer to Coagulants and Aids rather than Carbon Dioxide? **(Submitted: Jan 26, 2024 4:01:22 PM CST)**

Answer

- See Addendum 1 **(Answered: Feb 5, 2024 4:03:10 PM CST)**

Question 4

I noticed the Letter of Authorization changed slightly this year. You are requiring a signature of a Manager, Managing Member, President or Vice President for a LLC.
Will a Corporate Secretary be acceptable as a "Managing Member"? **(Submitted: Jan 31, 2024 10:12:29 AM CST)**

Answer

- If the position is not listed on the Letter of Authorization, then we will need a Letter of Authorization. **(Answered: Jan 31, 2024 4:44:59 PM CST)**

Question 5

Does this opportunity require the awarded bidder to accept credit cards as a form of payment? **(Submitted: Jan 31, 2024 11:20:05 AM CST)**

Answer

- No. **(Answered: Jan 31, 2024 12:40:34 PM CST)**

Question 6

On the pricing sheet, there is a line marked "price per lb" and another marked "price per lb for bulk quantity".

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What is the difference between the two options? **(Submitted: Jan 31, 2024 1:03:33 PM CST)**

Answer

- See Addendum 1 **(Answered: Feb 5, 2024 4:03:10 PM CST)**

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