

***INVITATION TO BID
FROM
ST. BERNARD PARISH***

***St. Bernard Parish Government
Department Of Public Works
1125 East St. Bernard Highway
Chalmette, Louisiana 70043***



Specifications

***Bid for Chemicals for St. Bernard Parish Government, Department of Public Works,
Water and Sewer Division***

**Poly-dadmac
Sludge Dewatering Polymer
Liquid Chlorine (Ton Containers)
Liquid Chlorine (150 lb. Cylinders)
Anhydrous Ammonia
Aluminum Sulfate (Liquid Alum 48%)
Sodium Hypochlorite (12.5% Bleach)
Sodium Thiosulfate (30% Solution)**

**Prepared By:
Department of Public Works
St. Bernard Parish Government
1125 East St. Bernard Highway
Chalmette, Louisiana 70043**

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ADVERTISEMENT FOR BIDS

ST. BERNARD PARISH GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
STATE OF LOUISIANA

Sealed Bids will be received until the hour of **2:00 p.m. on Thursday, November 7, 2024, in the Office of the Department of Public Works, St. Bernard Parish Government located at 1125 East St. Bernard Highway, Chalmette, Louisiana** and opened at 2:00 p.m., at which time they will be publicly read, for:

Bid for Chemicals for St. Bernard Parish Government, Department of Public Works, Water and Sewer Division

**Poly-dadmac
Sludge Dewatering Polymer
Liquid Chlorine (Ton Containers)
Liquid Chlorine (150 lb. Cylinders)
Anhydrous Ammonia
Aluminum Sulfate (Liquid Alum 48%)
Sodium Hypochlorite (12.5% Bleach)
Sodium Thiosulfate (30% Solution)**

To be a valid delivery, Sealed Bids must be delivered electronic by Central Bidding or by hand to St. Bernard Parish Government, Department of Public Works, 1125 East St. Bernard Highway, Chalmette, Louisiana during normal business hours of 8:30 a.m. to 4:30 p.m. Monday through Friday on or before **2:00 p.m. on Thursday, November 7, 2024.**

Sealed bids delivered to any other St. Bernard Parish Government location or other room number prior to the bid receipt deadline will not be considered.

The specifications are on file and may be secured from the St. Bernard Parish Government, Department of Public Works, 1125 East St. Bernard Highway, Chalmette, Louisiana 70043 (504) 278-4314 tdoskey@sbspq.net.

Bids may also be viewed and submitted online at www.centralauctionhouse.com.

St. Bernard Parish Government is an Equal Opportunity Employer. St. Bernard Parish Government also encourages all small and minority-owned firms and women's business enterprises (DBE's, including MBE's, WBE's and SBE's) to apply.

/s/Hillary J. Nunez, Jr.
Hillary J. Nunez, Jr.
Director
Department of Public Works

For Publication on: October 18, 2024
 October 25, 2024

GENERAL CONDITIONS

1. It is the policy of the St. Bernard Parish Government not to do business with any firm, individual, partnership or corporation employing or owned by any individual who is an employee of the St. Bernard Parish Government.
2. St. Bernard Parish Government encourages the participation of small businesses and businesses owned by women and minorities in the parish's procurement activity.
3. St. Bernard Parish is tax exempt. All prices for procurement by St. Bernard Parish Government for supplies and materials shall be quoted in the unit measure specified unless otherwise specified shall be exclusive of state and parish taxes.
4. All delivery charges must be included in all bids unless it is stated in the bid package that the St. Bernard Parish Government will pick up all materials in writing.
5. Contract will be for a one year period with an option to renew for an additional one year. Contract Renewal must be mutually agreed upon by both parties.
6. St. Bernard Parish reserves the right to cancel at any time for any reason by issuing a thirty day written notice to the vendor.
7. Bid shall be good and may not be withdrawn for a period of 45 calendar days after the scheduled closing time for receiving of Bids.
8. Bids may be withdrawn by the bidder if done by affidavit within 48 hours of bid opening, but only for patently obvious, unintentional and substantial mechanical, clerical or mathematical errors.
9. St. Bernard Parish reserves the right to reject any or all bids
10. Bids will be received as stated in the Advertisement for Bids. It is the sole responsibility of the bidder to submit the bid to the designated time and place. Bids received after closing time will be returned unopened to the Bidder.
11. Bid to be awarded to lowest responsive/responsible bidder meeting specifications on each item.
12. Bid must be enclosed in a sealed envelope with the submitting company name and address as well as the project title **"Bid for Chemicals for St. Bernard Parish Government, Department of Public Works, Water and Sewer Division"** on the outside of the envelope.

13. The Non-Collusion Affidavit and Statutory Affidavit must be completed and notarized. Both affidavits must be returned with the bid.
14. The Employment Letter must be completed and returned with the bid.
15. The bid form must be properly signed by the Bidder. A corporate resolution must be submitted with the bid or the person signing the bid documents must be listed on the Louisiana Secretary of State's website. If bidder is registered out of state of Louisiana, a corporate resolution must be submitted with the bid. Satisfactory evidence of the authority of the person signing on behalf of the individual, firm or partnership must be attached. Failure to comply will cause bid to be rejected and the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in the event. A sample corporate resolution is enclosed in the bid package.
16. Quantities listed are for bidding purposes only. Quantities may be more or less than quantities listed.
17. If addenda(s) are issued, Bidder must acknowledge Addenda on the Bid Form
18. All invoices must be mailed as follows:

St. Bernard Parish Government
Accounts Payable Department
8201 West Judge Perez Drive
Chalmette, Louisiana 70043

NON-COLLUSION
AFFIDAVIT

STATE OF ~~LOUISIANA~~ Georgia
County
~~PARISH~~ OF Liberty BEING FIRST

DULY SWORN, DEPOSES AND SAYS:

THAT HE IS Boyd Stanley, Sr. Vice-President OF
Polydyne Inc.
(CONTRACTOR)

THE PARTY MAKING THE FOREGOING PROPOSAL OR BID, THAT SUCH BID IS GENUINE AND NOT COLLUSIVE, NOR A SHAM; THAT SAID BIDDER HAS NOT COLLUDED, CONSPIRED, CONNIVED, OR AGREED, DIRECTLY OR INDIRECTLY, WITH ANY BIDDER OR PERSON, TO PUT IN A SHAM BID OR TO REFRAIN FROM BIDDING, AND HAS NOT IN ANY MANNER DIRECTLY OR INDIRECTLY, SOUGHT BY AGREEMENT OR COLLUSION, OR COMMUNICATION OR CONFERENCE, WITH ANY PERSON, TO FIX THE BID PRICE ELEMENT OR SAID BID, OR OF THAT OF ANY OTHER BIDDER OR TO SECURE ANY ADVANTAGE AGAINST ANY OTHER BIDDER OR TO ANY PERSON INTERESTED IN THE PROPOSED CONTRACT; AND THAT ALL STATEMENTS CONTAINED IN SAID PROPOSAL OR BID ARE TRUE.


(SIGNATURE OF BIDDER)

THE ABOVE STATEMENTS MUST BE SUBSCRIBED AND SWORN TO BEFORE A NOTARY PUBLIC.

SUBSCRIBED AND SWORN TO THIS 4th DAY OF November, 20 24.


NOTARY PUBLIC

NA-1



STATUTORY AFFIDAVIT
Required by RS 38:2224

STATE OF ~~LOUISIANA~~ Georgia
County
~~PARISH OF~~ Liberty BEING FIRST

DULY SWORN, DEPOSES AND SAYS:

THAT HE IS Boyd Stanley, Sr. Vice-President OF
Polydyne Inc.
(CONTRACTOR)

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.



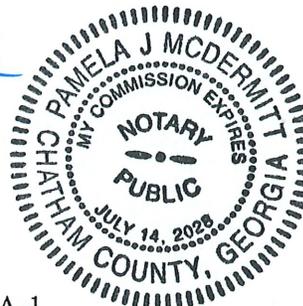
(SIGNATURE OF BIDDER)

THE ABOVE STATEMENTS MUST BE SUBSCRIBED AND SWORN TO BEFORE A NOTARY PUBLIC.

SUBSCRIBED AND SWORN TO THIS 4th DAY OF November,
20 24.



NOTARY PUBLIC



EMPLOYMENT LETTER

Department of Public Works
St. Bernard Parish Government
1125 East St. Bernard Highway
Chalmette, Louisiana 70043

This is to certify that no one employed by this organization, or having an owner relationship with this organization, is an employee of the St. Bernard Parish Government.

I further assure you that we will not make any payments to any employees or elected officials of St. Bernard Parish as a result or a condition of doing business with the St. Bernard Parish Government.

Signed	<u></u>
Name	<u>Boyd Stanley</u> (print or type)
Title	<u>Sr. Vice-President</u>
Company	<u>Polydyne Inc.</u>
Date	<u>11/4/24</u>

**SAMPLE
CORPORATE RESOLUTION**

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF _____, INCORPORATED.

AT THE MEETING OF DIRECTORS OF _____,
INCORPORATED, DULY NOTICED AND HELD ON _____, 2024,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED.
IT WAS:

RESOLVED. THAT _____, BE AND IS HEREBY APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS AND TRANSACTIONS WITH THE PARISH OF ST. BERNARD OR ANY OF ITS AGENCIES, DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO THE EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES, CONTRACTS AND ACTS AND TO RECEIVE AND RECEIPT THEREFOR ALL PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING AND ACCEPTING EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF AN EXCERPT OF THE MINUTES OF THE ABOVE DATED MEETING OF THE BOARD OF DIRECTORS OF SAID CORPORATION, AND THE SAME HAS NOT BE REVOKED OR RESCINDED.

SECRETARY-TREASURER

DATE

POLYDYNE INC

CERTIFICATE OF RESOLUTIONS

I, Christopher J. Gannon, Secretary of Polydyne Inc., a Delaware corporation (the "Company"), do hereby certify that at a duly called meeting of the Board of Directors of the Company, held on January 8, 2020, the Board of Directors unanimously approved the following Resolutions:

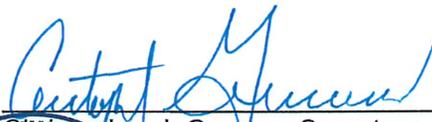
RESOLVED, that Boyd Stanley, René Pich, John Pittman, Mark Schlag, Bobby Wise and Ken Luke be and hereby are authorized, empowered and directed to bid, in the name of and on behalf of the Corporation, upon such municipal projects as he may deem appropriate; and further

RESOLVED, that Boyd Stanley, René Pich, John Pittman, Mark Schlag, Bobby Wise and Ken Luke be and hereby are authorized and empowered to execute and deliver, in the name of and on behalf of the Corporation, all documents, instruments, certificate, agreements and papers as he may deem advisable or necessary or proper to effect the Corporation's municipal bids or the transactions contemplated thereby; and further

RESOLVED, that any Officer of the Corporation be and hereby is authorized and empowered, and to the extent necessary or advisable, directed, to attest the execution of any document executed pursuant to these resolutions, and to affix the seal of the Corporation thereto, and to certify under seal to any municipality the adoption of these resolutions; and further

RESOLVED, that the authorizations granted under these Resolutions shall continue in full force and effect until successors to the foregoing representatives of the Corporation shall have been duly appointed or until the death, resignation or removal of each such representative.

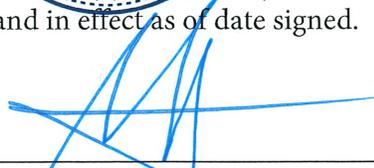
IN WITNESS WHEREOF, the undersigned has signed this Certificate of Resolutions with effect this 8th day of January 2020.



Christopher J. Gannon, Secretary



I attest the authenticity of this copy of the Resolution of the Board of Directors. This resolution is still valid and in effect as of date signed.



Mark Schlag
Vice President Finance, Assistant-Secretary & Treasurer
Date: 11/4/24

**Polydyne Inc.
General Information**

Federal Identification No. 34-1810283

State of Incorporation: Delaware

Date of Incorporation: August 21, 1995

Administrative Offices: P.O. Box 279,
1 Chemical Plant Road
Riceboro, GA 31323

Payment Address: P.O. Box 404642
Atlanta, GA 30384-4642

Board of Directors

John Pittman

Officers

President	John Pittman
Secretary	Christopher Gannon
VP-Finance, CFO, Treasurer & Assistant Secretary	Mark Schlag
Senior Vice President	Boyd Stanley
Vice President	Ken Luke

***Authorized Signers-Non Officers**

Bobby Wise	Controller
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Ownership Disclosure

Corporation	Percent Ownership	Owner
Polydyne Inc.	100	SNF Holding Company
SNF Holding Company	100	SPCM SA
SPCM SA	100	Mr. René PICH holds and/or controls 100% of the shares of SPCM SA, a company duly organized and existing under the laws of France, whose registered office is in ZAC de Milieux, Andrézieux, (42163), FRANCE, registered under the number 312 327 737 in the Commercial Registry of the town of Saint-Etienne (42000), FRANCE.

Technical Specifications

Item A: Poly-Dadmac

Product must be a water soluble cationic poly-diallyl-dimethyl-ammonium chloride. Product must be resistant to chloramines and must be capable of functioning as a primary coagulant without any additional additives. Shelf life shall be no less than twelve (12) months. Must be approved by E.P.A. and LA. Department of Health and meet A.W.W.A. specifications for use in potable water treatment at a dosage of 0.5 – 10 ppm. **The polymer shall be at least 20% active chemical.** Manufacturer shall conduct trail test in the St. Bernard Parish Water Treatment Plant prior to awarding of bid contract. Delivery of the chemical shall be made at the polymer storage tanks, located at Water Treatment Plant #1. **POLYDYNE C 308-P or EQUAL.** Minimum shipment of 1500 gallons.

Item B: Sludge Dewatering Polymer

Product must be cationic, molyacrylamide emulsion polymer capable of functioning as a primary dewatering polymer without the aid of additional additives. Minimum shipment of 275-gallon tote. **POLYDYNE CLARIFLOC C-6286 or EQUAL.**

Item C: Liquid Chlorine (Ton Containers)

Product must be shipped in one ton containers. Chlorine needs to be delivered within five days of placement of order. Minimum shipment of 8 tons.

Item D Liquid Chlorine (150 Lb. Cylinders)

Product must be shipped in 150 lb. cylinders. Chlorine needs to be delivered within five days of placement of order. Minimum shipment of 15 cylinders.

Item E Anhydrous Ammonia

Product must meet E.P.A and A.W.W.A. approval for use in potable water treatment. Product must be delivered to owner via supplier supplied 500-gallon tank.

Metallurgical Grade (M Grade)
Ammonia Assay: 99.9965 Min
Ammonia Assay: 99.999 Typical
Water (ppm): 33 Max
Water (ppm): 10 Typical
Oil (ppm): 2 Max
Oil (ppm): 1 Typical

Item F Aluminum Sulfate (Liquid Alum 48%)

Product must be delivered in liquid and priced per dry ton. Alum must be NSF approved for potable water. Liquid Aluminum Sulfate must be manufactured with **Kaolin Clay as the raw material source.** Delivery shall be to owner supplied 5000 gallon bulk tank, with minimum shipments of 4000 gallons.

Item G Sodium Hypochlorite (12.5% Bleach)

Product must be approved for use in potable water and wastewater treatment plants. Product shall be a 12.5% solution and delivered to owner supplied bulk shipment tanks. Minimum shipments of 4500 – 5000 gallons.

Item H Sodium Thiosulfate (30% Solution)

Product must be approved for use in potable water and wastewater treatment plants. Product shall be a 30% solution and delivered to owner via supplier supplied 330-gallon tote.

All prices quoted on items A through H shall include shipping charges.

Special Conditions – Deliveries

1. Item A, C, E, and F shall be delivered to the following address:

St. Bernard Parish Government
Department of Public Works
Water and Sewer Division
1111 East St. Bernard Highway
Chalmette, Louisiana 70043

2. Item D shall be delivered to the following address:

Reggio Booster Pump Station
4400 East Louisiana Highway 46
St. Bernard, Louisiana 70085

3. Item B, G and H shall be delivered to the following address:

Munster Waste Water Treatment Plant
3300 Munster Boulevard
Meraux, Louisiana 70075

BID FORM

St. Bernard Parish Government
Department of Public Works
1125 East St. Bernard Highway
Chalmette, Louisiana 70043

Ladies/Gentlemen,

Having examined the Specifications the undersigned in compliance with your invitation to bid hereby proposed to furnish the following for the price listed below:

Item No.	Description	Unit Price	Quantity	Total
A	Poly-dadmac	\$ <u>0.83</u> lb.	120,450 lbs.	\$ <u>99,973.50</u>
B.	Sludge Dewatering Polymer	\$ <u>1.75</u> lb.	11,680 lbs.	\$ <u>20,440.00</u>
C.	Liquid Chlorine (Ton Containers)	\$ <u>No Bid</u> lb.	164,250 lbs.	\$ _____
D.	Liquid Chlorine (150 lb. Cylinders)	\$ <u>No Bid</u> lb.	5,475 lbs.	\$ _____
E.	Anhydrous Ammonia	\$ <u>No Bid</u> lb.	31,025 lbs.	\$ _____
F.	Aluminum Sulfate (Liq. Alum 48%)	\$ <u>No Bid</u> ton	150 tons.	\$ _____
G.	Sodium Hypochlorite (12.5%Bleach)	\$ <u>No Bid</u> gal.	146,000 gals.	\$ _____
H.	Sodium Thiosulfate (30 % Solution)	\$ <u>No Bid</u> gal.	17,160 gals.	\$ _____

Quantities are estimates only on a per annual contract

The undersigned agrees that this Bid shall be good and may not be withdrawn for a period of 45 calendar days after the scheduled closing time for receiving of Bids.

The following additional items are attached to this Bid Form:

- a) Non-Collusion Affidavit
- b) Statutory Affidavit
- c) Employment Letter
- d) Satisfactory evidence of the authority of person signing bid/proposal form. (As per General Conditions – Item No. 15)

The Bidder acknowledges receipt of, and makes part of this Proposal, the following addenda:

None Received _____

Polydyne Inc.

Company's Name


Signature Boyd Stanley

Sr. Vice-President

Title

1 Chemical Plant Road
Riceboro, GA 31323

Address

(800) 848-7659 Opt. 2

Telephone Number

bids@polydyneinc.com

E-Mail Address



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Monday, November 4, 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?>

[CompanyName=polydyne+inc%2E&TradeName=c%2D308p&](http://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=polydyne+inc%2E&TradeName=c%2D308p&)

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

Clarifloc® C-308P

Product Function

Coagulation & Flocculation

Max Use

50 mg/L

Facility : Riceboro, GA

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L

Facility : Dolton, IL

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L

Facility : Pearlinton, MS

Poly (Diallyldimethylammonium Chloride)(pDADMAC)

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Clarifloc® C-308P	Coagulation & Flocculation	50mg/L

Number of matching Manufacturers is 1

Number of matching Products is 4

Processing time was 1 seconds

CLARIFLOC C-308P POLYMER

CHARACTERISTICS

CLARIFLOC C-308P polymer is a low molecular weight, homopolymer of diallyldimethylammonium chloride. It is an effective organic coagulant for water clarification in a variety of municipal applications. CLARIFLOC C-308P 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-308P 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	25F. (-4 C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC C-308P is a solution polymer which can be diluted to any convenient concentration for feeding. No special make-down or activation procedures are necessary. The polymer can be diluted in-line using a static mixer or in a stirred vessel. Diluting to 1-10% is highly recommended for all clarification applications because the coagulant will be distributed more efficiently into the system with less chance of overdose.

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	80 - 180 cPs
Product pH	5.0-7.0

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

All statements, information and data given herein are believed to be accurate, but are presented without warranty, expressed or implied. Statements concerning possible use are made without representation or warranty that any such use is free of patent infringement, and is not a recommendation to infringe on any patent. The user should not assume that all safety measures are indicated or that other measures may not be required. Any determination of the suitability of a particular product for any use contemplated by the user is the sole responsibility of the user.

HANDLING AND STORAGE

CLARIFLOC C-308P has a suggested in-plant storage life of one year 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-308P, sprinkle sawdust or vermiculite over the spill area and sweep the material into approved chemical disposal containers.

PRODUCT SAFETY INFORMATION

CLARIFLOC C-308P 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-308P, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC C-308P Polymer is shipped in 55 gallon drums containing 450 pounds net and 275 gallon totes containing 2300 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



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-308P**

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:

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.

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 (NO_x), carbon oxides (CO_x). 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.

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 (NO_x), carbon oxides (CO_x). 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:

<i>Acute oral toxicity:</i>	LD50/oral/rat > 5000 mg/kg
<i>Acute dermal toxicity:</i>	LD50/dermal/rat > 5000 mg/kg.
<i>Acute inhalation toxicity:</i>	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.
<i>Skin corrosion/irritation:</i>	Not irritating.
<i>Serious eye damage/eye irritation:</i>	Slightly irritating.
<i>Respiratory/skin sensitisation:</i>	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
<i>Mutagenicity:</i>	Not mutagenic.
<i>Carcinogenicity:</i>	By analogy with similar substances, this substance is not expected to be carcinogenic.

<i>Reproductive toxicity:</i>	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	No known effect.
<i>Aspiration hazard:</i>	No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

<i>Acute toxicity to fish:</i>	LC50/Danio rerio/96 hours > 100 mg/L
<i>Acute toxicity to invertebrates:</i>	EC50/Daphnia magna/48 hours > 100 mg/L
<i>Acute toxicity to algae:</i>	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.
<i>Chronic toxicity to fish:</i>	No data available.
<i>Chronic toxicity to invertebrates:</i>	No data available.
<i>Toxicity to microorganisms:</i>	EC0/activated sludge/0.5 hours = 1000 mg/L (OECD 209)
<i>Effects on terrestrial organisms:</i>	Exposure to soil is unlikely.
<i>Sediment toxicity:</i>	Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

<i>Degradation:</i>	Not readily biodegradable.
<i>Hydrolysis:</i>	Does not hydrolyse.
<i>Photolysis:</i>	No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.

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:

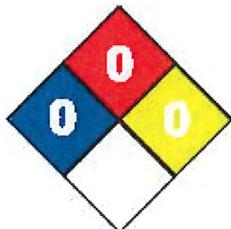
Not concerned.

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.

CLARIFLOC C-6286 POLYMER

PRINCIPAL USES

CLARIFLOC C-6286 is a **high** charge cationic 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.

TYPICAL PROPERTIES

Physical Form	Clear to Milky White Liquid
Cationicity	80 %
Active Polyacrylamide Min.	41%
Specific Gravity	1.01 - 1.05
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.6 Lb/Gal

PREPARATION AND FEEDING

CLARIFLOC C-6286 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	45.5 - 52.5
Residual AcAm	< 1000 ppm
Neat Viscosity	300 - 2000 cPs
UL Viscosity	2.4 - 3.1

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 C-6286, 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 C-6286 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 C-6286 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)

All statements, information and data given herein are believed to be accurate, but are presented without warranty, expressed or implied. Statements concerning possible use are made without representation or warranty that any such use is free of patent infringement, and is not a recommendation to infringe on any patent. The user should not assume that all safety measures are indicated or that other measures may not be required. Any determination of the suitability of a particular product for any use contemplated by the user is the sole responsibility of the user.



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-6286**

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:

Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Spills produce extremely slippery surfaces.

For explanation of abbreviations see Section 16.

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 - 30%

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), α -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

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. Get medical attention immediately.

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: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). 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:*

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

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:*

Distillates (petroleum), hydrotreated light

ACGIH: 200 mg/m³ (8 hours) (vapors)

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation, especially in confined areas. 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 immediately after handling the product. Wash hands before breaks and at the end of workday. 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:	Not applicable.
q) Decomposition temperature:	> 150°C
r) Viscosity:	> 20.5 mm ² /s @ 40°C
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

Oxidizing agents may cause exothermic reactions.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). 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 \geq 4951 mg/m ³ (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.

<i>Serious eye damage/eye irritation:</i>	Not irritating. (OECD 405)
<i>Respiratory/skin sensitisation:</i>	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
<i>Mutagenicity:</i>	Not mutagenic. (OECD 471, 473, 474, 476, 478, 479)
<i>Carcinogenicity:</i>	Carcinogenicity study in rats (OECD 451): Negative.
<i>Reproductive toxicity:</i>	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat = 300 ppm. (OECD 421)
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days \geq 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
<i>Aspiration hazard:</i>	May be fatal if swallowed and enters airways.
<u><i>Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched</i></u>	
<i>Acute oral toxicity:</i>	LD50/oral/rat = 500 - 2000 mg/kg
<i>Acute dermal toxicity:</i>	LD50/dermal/rabbit > 2000 mg/kg
<i>Acute inhalation toxicity:</i>	No data available.
<i>Skin corrosion/irritation:</i>	Not irritating. (OECD 404)
<i>Serious eye damage/eye irritation:</i>	Causes serious eye irritation. (OECD 405)
<i>Respiratory/skin sensitisation:</i>	The results of testing on guinea pigs showed this material to be non-sensitizing.
<i>Mutagenicity:</i>	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
<i>Carcinogenicity:</i>	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.

<i>Reproductive toxicity:</i>	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
<i>STOT - Single exposure:</i>	No known effects.
<i>STOT - Repeated exposure:</i>	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
<i>Aspiration hazard:</i>	No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

<i>Acute toxicity to fish:</i>	LC50/Fish/96 hours = 10 - 100 mg/L (Estimated)
<i>Acute toxicity to invertebrates:</i>	EC50/Daphnia magna/48 hours = 10 - 100 mg/L (Estimated)
<i>Acute toxicity to algae:</i>	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.
<i>Chronic toxicity to fish:</i>	No data available.
<i>Chronic toxicity to invertebrates:</i>	No data available.
<i>Toxicity to microorganisms:</i>	No data available.
<i>Effects on terrestrial organisms:</i>	No data available.
<i>Sediment toxicity:</i>	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

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

Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L
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), *n*-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:	Based on the degradability data of the components, this product is expected to be readily (bio)degradable according to OECD criteria.
Hydrolysis:	At natural pHs (>6) the polymer degrades due to hydrolysis to more than 70% in 28 days. The hydrolysis products are not harmful to aquatic organisms.
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)

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:

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

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

SECTION 16: Other informationNFPA and HMIS Ratings:

NFPA:

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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 12. Ecological information, 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

ENCC046

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.