CITY OF OLATHE PRICE AGREEMENT

THIS AGREEMENT is made in Johnson County, Kansas, by and between the City of Olathe, Kansas, hereinafter "City," and Polydyne Inc., hereinafter "Vendor" (each individually a "Party" and collectively, the "Parties"). City needs water and wastewater treatment chemicals, and contracts with Vendor to supply the goods or services described in **Exhibit A**, as needed and as requested by City.

1. PRICE AGREEMENT, ORDERS, AND TERM. City agrees to pay Vendor at the prices listed in **Exhibit A** to supply the goods or services described in **Exhibit A**, as needed and as requested by City. City will have no financial obligation under this Agreement until an order has been placed. Any order placed under this Agreement remains subject to any applicable procurement policies of City, including approval by the appropriate authority based on the dollar amount of the order. Any order placed pursuant to this Agreement is subject to all terms and provisions of this Agreement. This contract will be a one (1)-year contract with the option to renew for up to five (5) additional one (1)-year periods upon the written agreement of both parties.

2. ADDITIONAL SERVICES. Vendor may provide services in addition to those listed **Exhibit A** when authorized in writing by City.

3. BILLING. Vendor may bill City monthly for all completed work and reimbursable expenses. Vendor must submit a bill which itemizes the work and reimbursable expenses. City agrees to pay Vendor within thirty (30) days of approval by the Governing Body or other agent of City in accordance with the City's Procurement Policy. The bill must be mailed to the attention of Account Payable, City of Olathe, PO Box 768, Olathe, KS 66051-0768 or emailed to apolathe@olatheks.org. The bill must indicate it is for work or expenses under this Agreement (include Agreement date for identification).

4. PAYMENT. If City becomes credibly informed that any representations of Vendor provided in its billing are wholly or partially inaccurate, City may withhold payment of sums then or in the future due to Vendor until the inaccuracy and the cause thereof is corrected to City's reasonable satisfaction.

5. STANDARD OF CARE. Vendor will exercise the same degree of care, skill, and diligence in the performance of the work as is ordinarily possessed and exercised by a professional under similar circumstances. If Vendor fails to meet the foregoing standard, Vendor will perform at its own cost, and without reimbursement, any work necessary to correct errors and omissions which are caused by Vendor's negligence.

6. TERMINATION FOR CONVENIENCE. City may terminate this Agreement for convenience by providing fifteen (15) days' written notice to Vendor. City will compensate Vendor for all work completed and accepted and reimbursable expenses incurred to the date of its receipt of the termination notice. Compensation will not include anticipatory profit or consequential damages, neither of which will be allowed.

7. TERMINATION FOR LACK OF FUNDS. If, for whatever reason, adequate funding is not made available by City to support or justify continuation of the level of work to be provided by Vendor under this Agreement, City may terminate or reduce the amount of work to be provided by Vendor under this Agreement. In such event, City will notify Vendor in writing at

least thirty (30) days in advance of such termination or reduction of work for lack of funds.

8. DISPUTE RESOLUTION. The Parties agree that disputes regarding the work will first be addressed by negotiations between the Parties. If negotiations fail to resolve the dispute, the Party initiating the claim that is the basis for the dispute may take such steps as it deems necessary to protect its interests. Notwithstanding any such dispute, Vendor will proceed with undisputed work as if no dispute existed, and City will continue to pay for Vendor's completed undisputed work. No dispute will be submitted to arbitration without both Parties' written approval.

9. SUBCONTRACTING. Vendor may not subcontract or assign any of the work to be performed under this Agreement without first obtaining the written approval of City. Unless stated in the written approval to an assignment, no assignment will release or discharge Vendor from any obligation under this Agreement. Any person or entity providing subcontracted work under this Agreement must comply with **Section 11** (**Insurance**).

10. OWNERSHIP OF DOCUMENTS. All final documents provided to City as part of the work provided under this Agreement, including but not limited to reports, plans, and related documents, will become City's property except that Vendor's copyrighted documents will remain owned by Vendor. Such documents must be clearly marked and identified as copyrighted by Vendor.

11. INSURANCE. Vendor and any subcontractor will maintain for the term of this Agreement insurance as provided in **Exhibit B**.

12. INDEMNIFICATION AND HOLD HARMLESS. For purposes of this Agreement, Vendor agrees to indemnify, defend, and hold harmless City, its officers, appointees, employees, and agents from any and all loss, damage, liability or expense, of any nature whatsoever caused or incurred as a result of the negligence or other actionable fault of Vendor, its affiliates, subsidiaries, employees, agents, assignees, and subcontractors and their respective employees and agents. Vendor is not required hereunder to defend City, its officers, appointees, employees, or agents from assertions that they were negligent, nor to indemnify and hold them harmless from liability based on City's negligence. City does not indemnify Vendor.

13. LIMITATION OF LIABILITY FOR BREACH OF CONTRACT OR NEGLIGENT PERFORMANCE. Any attempt to limit liability for breach of contract or negligent performance to the amount of the payment to Vendor by City is void. Any attempt to limit Vendor's liability to City for consequential, exemplary, or punitive damages, or any other measure of damages permitted by law, in any action against Vendor for breach of contract is void.

14. KANSAS ACT AGAINST DISCRIMINATION. ***Unless*** Vendor employs fewer than four (4) employees during the term of this Agreement, or ***unless*** the total of all agreements (including this Agreement) between Vendor and City during a calendar year are cumulatively less than $5,000, ***then*** during the performance of this Agreement, Vendor agrees that:

a. Vendor will observe the provisions of the Kansas Act Against Discrimination (K.S.A. 44-1001 *et seq.*) and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, disability, national origin, or ancestry;

b. in all solicitations or advertisements for employees, Vendor will include the phrase, "equal opportunity employer," or a similar phrase to be approved by the Kansas Human Rights Commission (“commission”);

c. if Vendor fails to comply with the way Vendor reports to the commission in accordance with the provisions of K.S.A. 44-1031 and amendments thereto, Vendor will be deemed to have breached the present contract and it may be canceled, terminated, or suspended, in whole or in part, by City without penalty;

d. if Vendor is found guilty of a violation of the Kansas Act Against Discrimination under a decision or order of the commission which has become final, Vendor will be deemed to have breached the present contract and it may be canceled, terminated, or suspended, in whole or in part, by the contracting agency; and

e. Vendor will include the provisions of subsections a. through d. in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.

15. KANSAS OPEN RECORDS ACT. Vendor acknowledges that City is subject to the Kansas Open Records Act (K.S.A. 45-215, *et seq*.). City retains the final authority to determine whether it must disclose any document or other record under the Kansas Open Records Act and the manner in which such document or other record should be disclosed.

16. ENTIRE AGREEMENT. This Agreement, including all documents and exhibits included by reference herein, constitutes the entire Agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except in writing mutually agreed to by both Parties. No form or document provided by Vendor after execution of this Agreement will modify this Agreement, even if signed by both Parties, unless it: 1) identifies the specific section number and section title of this Agreement that is being modified and 2) indicates the specific changes being made to the language contained in this Agreement.

17. NO THIRD-PARTY BENEFICIARIES. Nothing contained herein will create a contractual relationship with, or any rights in favor of, any Third Party.

18. INDEPENDENT CONTRACTOR STATUS. Vendor is an independent contractor and not an agent or employee of City.

19. COMPLIANCE WITH LAWS. Vendor will abide by all applicable federal, state, and local laws, ordinances, and regulations.

20. FORCE MAJEURE CLAUSE. Neither Party will be considered in default under this Contract because of any delays in performance of obligations hereunder due to causes beyond the control and without fault or negligence on the part of the delayed Party, including but not restricted to, an act of God or of a public enemy, civil unrest, volcano, earthquake, fire, flood, tornado, epidemic, quarantine restrictions, area-wide strike, freight embargo, unusually severe weather or delay of subcontractor or supplies due to such cause; provided that the delayed Party must notify the other Party in writing of the cause of delay and its probable extent within ten (10) days from the beginning of such delay. Such notification will not be the basis for a claim for additional compensation. The delayed Party must make all reasonable efforts to remove or

eliminate the cause of delay and must, upon cessation of the cause, diligently pursue performance of its obligation under the Agreement.

21. APPLICABLE LAW, JURISDICTION, VENUE. Interpretation of this Agreement and disputes arising out of or related to this Agreement will be subject to and governed by the laws of the State of Kansas, excluding Kansas' choice-of-law principles. Jurisdiction and venue for any suit arising out of or related to this Agreement will be in the District Court of Johnson County, Kansas.

22. SEVERABILITY. If any provision of this Agreement is determined to be void, invalid, unenforceable, or illegal for whatever reason, such provision(s) will be null and void; provided, however, that the remaining provisions of this Agreement will be unaffected and will continue to be valid and enforceable.

23. ORDER OF PRECEDENCE. If there is any conflict between the terms of this Agreement, excluding exhibits, and anything contained in the exhibits referenced herein or attached hereto, the terms and provisions of this Agreement, excluding exhibits, shall control.

[The remainder of this page is intentionally left blank.]

The Parties hereto have caused this Agreement to be executed this _____ day of

_____ 20___.

CITY OF OLATHE, KANSAS

By: _____
Mayor

ATTEST:

_____ (SEAL)
City Clerk

APPROVED AS TO FORM:

_____
City Attorney or Deputy/Assistant City Attorney

Polydyne Inc.

By: _____
Boyd Stanley, Sr. Vice-President
One Chemical Plant Road
PO Box 250
Riceboro, GA 31323

Exhibit A
Vendor's Proposal

Item	Description	Unit	Unit Price	Brand
Polymer, Polydyne CE-341	300-gallon totes	tote	3258.45	POLYDYNE INC.
Polymer, Polydyne C-6285	300-gallon totes	tote	4025	POLYDYNE INC.
Polymer, Polydyne CE-6286	300-gallon totes	tote	4025	POLYDYNE INC.

Note - Polydyne Inc.'s totes are filled to approximately 275 gallons and the City of Olathe will be billed in pounds.

CITY OF OLATHE, KS
IFB-25-0020
WATER & WASTEWATER TREATMENT CHEMICALS

All deliveries of chemicals shall be made between the hours of 7:00 AM and 3:00 PM on the date requested. Delivery outside specified hours on the date requested may be refused or unloading may be delayed until after 7:00 AM the following workday (Monday through Friday), at no additional cost to the City. **If there is to be a delivery delay for whatever reason to Olathe Water Plant, the Plant Control Operator shall be notified.**
Comply X Exception _____

CITY OF OLATHE, KS DELIVERY SITES

1.	Olathe Water Plant (WP)	27065 W. 83rd Street (2 ½ miles West of K-7 Hwy) Lenexa, KS 66227
2.	Harold Street Wastewater Treatment Plant (WWHS)	200 W Harold Street Olathe, KS 66061
3.	Cedar Creek Wastewater Treatment Plant (WWCC)	25915 W 119th St Olathe, KS 66061

SECURITY
WP and WWCC have an intercom located at the front gate. Delivery person shall follow the instructions provided via the intercom for delivery of product. Access to the facility will be granted only after the chemical vendor has been satisfactorily identified with proper identification. All chemical vendors must sign in and out. No unauthorized persons shall be allowed to enter the plant areas unless escorted by a City of Olathe representative.

CERTIFICATIONS
All chemicals delivered to the Olathe Water Plant, with the exception of ammonia, shall be NSF (National Sanitation Foundation) listed for use in drinking water/potable water applications. All chemicals delivered to Harold Street Wastewater Treatment Plant and Cedar Creek Wastewater Treatment Plant shall be UL (Underwriters Laboratories) listed. Ammonia shall meet National Research Council Codex for Ammonium Hydroxide. The bidder's Sodium Hypochlorite solution must be approved and registered with EPA for use in potable water systems and shall be manufactured in the USA. Bidder's own EPA registration MUST be included with your bid submittal as a separate attachment when you upload your bid documents on **Bonfire**.

Bidders are **REQUIRED** to submit a detailed specification, typical analysis, material certification and MSD sheets for each item bid, in addition to an affidavit that the product(s) complies with the latest applicable requirements of the AWWA and NSF standard specified. The most current MSD sheets for each bid item MUST be included with the bid. If the MSD sheet revised- or reviewed-date is more than one year prior to the bid date, bidder MUST submit a statement on its company letterhead that the submitted MSD sheet is the most current available for the product. **Failure to submit this information may result in rejection of bid.**
Comply X Exception _____

NO SUBSTITUTES
The words "NO SUBSTITUTES" means that the City has standardized on a brand or type of chemical and will not accept substitutions.

DETAILED SPECIFICATIONS
Bidders are required to document the specifications in the space provided by completing the requested information and indicating comply, not comply, or entering an explanation in the exception field. Failure to complete this information is grounds for rejection of bid. Pricing for all chemicals shall be entered on the online bid form at **Bonfire**. Bidders are requested to retain a copy of these specifications for future reference.

1. **AMMONIA/WP:**
   Ammonium Hydroxide (aqua ammonia) shall meet AWWA Standard B306, latest revision, and the National Research Council Codex for Ammonium Hydroxide 20.4° – 20.9° baume, 19% Aqua Ammonia – Bulk truck delivery (approximately 13-14 tons). CAS Number 1336-21-6

Affirmative Action Policy

Polydyne, Inc., a subsidiary of SNF Holding Company agrees to a commitment to equal employment opportunity and affirmative action. This written statement will assure fair and equal treatment for all.

The Company will provide equal employment opportunity to all persons. Equal employment opportunity means the treatment of all employees and applicants for employment without unlawful discrimination as to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship status in all employment decisions, including but not limited to recruitment, hiring, compensation, training and apprenticeship, promotion, upgrading, demotion, downgrading, transfer, layoff, and termination, and all other terms and conditions of employment.

The Goals and Timetables of Polydyne's Affirmative Action Policy

I. In accordance with the proportion of minority populations in the geographic areas of each of the various manufacturing sites represented by Polydyne:

Plant Site	Actual Percentage Minorities	
	Ethnic Minority	Women
Dolton, IL	18.1%	36.4%
Wayne, MI	75%	12.5%
Los Angeles, CA	78.6%	7.1%
Riceboro, GA	58%	18.1%
Taylor, PA	11.1%	0%
Longview, WA	100%	0%
COMPANY-WIDE ACTUAL	48.7%	16.1%
COMPANY-WIDE GOAL	40.6%	27.9%

II. A good faith effort will be made to utilize minorities, women and the individuals with disabilities in each occupational category when the opportunity arises and qualified persons are available to fill vacancies.

III. To that end, we hereby agree to the following affirmative action steps.

A. Internally publicize the affirmative action policy in written communications, meetings, employee handbooks, on bulletin boards and other conspicuous places available to employees and applicants for employment.

B. Externally publicizes this affirmative action policy through the appropriate media.

C. Inform all public and private employment agencies, educational institutions and any other potential source of recruitment that referrals for all positions are to comply with the Polydyne affirmative action requirements.

D. Include an equal opportunity clause in all contracts with subcontractors and suppliers.

E. Inform all management personnel, especially those with the authority to test, hire, promote, discipline and/or discharge employees, of this affirmative action policy and of their individual responsibility to conduct all personnel matters consistent with this affirmative action policy.

F. When vacancies arise, place classified advertisements only under "Help Wanted" or "Help Wanted, Male-Female" listings and specifying an Equal Opportunity Employer Male/Female/ Handicapped.

G. Document all efforts to improve the representation of minorities, women and individuals with disabilities.

H. Appoint an Equal Employment Opportunity Officer at the management level to assure implementation and enforcement of this policy. The Equal Employment Opportunity Officer will be responsible for:

1. Maintaining the records and files necessary to determine good faith efforts for compliance with our affirmative action policy.

2. Maintaining an internal audit and reporting system to measure program effectiveness.

3. Reporting, at least twice yearly, on progress of each unit in relation to our affirmative action goals. The report will include:

   a. A survey of minority, female and individuals with disabilities representation by department and job classification.

   b. A determination of minority availability compared to the minority population of localities of Secodyne plant sites.

   c. Identification of under utilization according to areas and job classification

4. Identifying steps in the selection process which acts as barriers to minorities, women and individuals with disabilities. This will include:

   a. A record of applicant hiring by job, race, national origin, sex and disability.

   b. A review of each step in the selection process including education and experience requirements, tests and interviews. Any part of the process which eliminates or disadvantages women, minorities or individuals with disabilities must be shown to be necessary for satisfactory job performance or it will not be used.

Joseph Naizer, Vice President – Human Resources
EEO Officer

Affirmative Action Policy For Disabled Individuals

Polydyne, Inc., a subsidiary of SNF Holding Company, agrees to a commitment to equal employment opportunity and affirmative action. This written statement will assure fair and equal treatment for all.

The Company will provide equal employment opportunity to all persons. Equal employment opportunity means the treatment of all employees and applicants for employment without unlawful discrimination as to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship status in all employment decisions, including but not limited to recruitment hiring, compensation, training and apprenticeship, promotion, upgrading, demotion, downgrading, transfer, layoff, and termination, and all other terms and conditions of employment.

I. DISABLED INDIVIDUALS AFFIRMATIVE ACTION CLAUSE

Polydyne shall not discriminate against any employee or applicant for employment because of physical or mental disability for any position in which the employee or applicant for employment is qualified. Polydyne agrees to take affirmative action to employ, promote and other wise treat qualified disabled individuals without discrimination based upon their physical or mental disability in all employment practices, including recruitment, selection, placement, training, compensation, promotion, transfer, layoff, recall and termination.

Polydyne agrees to post notices that state the rights of employees and applicants for employment and Polydyne's obligation under the law to take affirmative action to employ and promote qualified disabled employees and applicants for employment. These notices will be posted in conspicuous places available to all employees and applicants.

II. PRE-EMPLOYMENT MEDICAL EXAMINATION AND DRUG TESTING

Polydyne requires a post-conditional job offer comprehensive medical examination, drug and alcohol screening after job offers are made and annually thereafter. The results of these examinations will not be used to screen out qualified disabled individuals. Information obtained from these examinations will be kept confidential except:

A. Supervisors and managers may be informed regarding restriction on work or duties of disabled individuals and providing accommodations.

B. First aid and safety personnel may be informed; to the extent the information is necessary, if the condition could require emergency medical treatment.

C. Officials, employees, representatives or agents of government regulatory agencies may be provided such information in the course of investigating compliance.

III. ACCOMMODATIONS TO PHYSICAL & MENTAL LIMITATION OF EMPLOYEES

Polydyne shall make a good faith effort to accommodate the physical and mental limitations of an employee or an applicant for employment unless the accommodation would impose an undue hardship on the conduct of the business.

IV. COMPENSATION

If offering employment or promotions to disabled individuals, Polydyne shall not reduce the amount of compensation offered because of any disability income, pension or other benefit the applicant or employee receives from another source.

V. OUTREACH AND POSITIVE RECRUITMENT POLICY

Polydyne shall review employment practices annually to ensure that personnel programs provide the required affirmative action for employment and advancement of qualified disabled individuals. Based upon the findings of the annual review, Polydyne shall undertake appropriate outreach and positive recruitment activities, including but not limited to the following:

A. Develop internal communication of obligation to engage in affirmative action efforts to employ qualified disabled individuals in such a manner as to foster understanding, acceptance and support among all management and non-management personnel and to encourage all employees to take the necessary action to aid Polydyne in meeting this obligation.

B. Develop reasonable internal procedures to ensure that the obligation to engage in affirmative action to employ and promote qualified disabled individuals is being fully implemented.

C. Periodically inform all employees and applicants for employment of the commitment to engage in affirmative action to increase employment opportunities for qualified disabled individuals.

D. Public and private employment agencies, educational institutions, vocational rehabilitation agencies, sheltered workshops and any other potential source of recruitment will be informed that referrals for all positions are to comply with the Polydyne affirmative action requirements and commitment to provide meaningful employment opportunities to qualified disabled individuals.

E. Establish contacts with appropriate social service agencies for the purpose of advice and technical assistance in accommodating disabled individuals.

F. Review the employment records to determine the availability of promotable and transferable qualified known disabled individuals presently employed and to determine if their present and potential skills are being fully utilized and developed.

G. Include disabled workers when employees are pictured in consumer, promotional or help- wanted advertising.

H. Send written notification of Polydyne's affirmative action policy to subcontractors and suppliers.

1. Take positive steps to attract qualified disabled persons not currently in the work force who have the required skills and can be recruited through affirmative action measures.

VI. INTERNAL DISSEMINATION OF POLYDYNE'S POLICY

Realizing that an outreach program is ineffective without adequate internal support from management and non-management personnel who may have had limited contact with disabled persons in the past and in order to assure greater employee cooperation and participation, Polydyne shall disseminate this policy internally as follows:

A. Polydyne will include the policy in the policy manual and the employee handbook.

B. All contractual provisions will be reviewed to insure that they are nondiscriminatory.

C. The policy will be posted on bulletin boards and in other conspicuous places, including a statement that employees and applicants for employment are protected from coercion, intimidation, interference or discrimination for filing a complaint or assisting in an investigation of any regulatory agency.

D. Conduct special meetings with management and non-management personnel to discuss the Policy and explain individual employee responsibilities.

1. Discuss the policy thoroughly in both employee orientation and management training programs.

VII. RESPONSIBILITY FOR IMPLEMENTATION

Polydyne will appoint an Equal Employment Opportunity Officer at the management level to assure implementation and enforcement of this policy. The EEO Officer's name shall appear on all internal and external communications regarding Polydyne's affirmative action programs. The EEO Officer will be responsible for:

A. Maintaining the records and files necessary to determine good faith efforts for compliance with our affirmative action policy.

B. Developing policy statements, affirmative action programs, and communication techniques to ensure policies are enforced.

C. Developing audit and reporting systems that will:

1. Measure the effectiveness of Polydyne's programs.
2. Identify problems areas and indicate the need for remedial action.
3. Determine whether known disabled employees have had the opportunity to participate in all employer sponsored education and training activities.
4. Insure that each location is in compliance with governmental agencies.

D. Arranging for career counseling for known disabled employees

E. Serving as liaison between Polydyne and organizations for disabled persons to arrange for Active involvement in community service programs.

F. Serving as liaison between Polydyne and governmental regulatory agencies.

VIII. DEVELOPMENT AND EXECUTION OF AFFIRMATIVE ACTION PROGRAMS

The Affirmative Action Plan for Polydyne shall be developed and executed as follows:

Affirmative Action Policy For Disabled Individuals(Continued)

A. Polydyne shall evaluate the total selection process including training and promotion to ensure freedom from stereotyping disabled persons in a manner which limits their access to all jobs for which they are qualified.

B. Job qualification requirements that have been reviewed shall be made available to all members of management involved in the recruitment, screening, selection and promotion process.

C. All personnel involved in the recruitment, screening, promotion, disciplinary and related process shall be carefully selected and trained to ensure that the commitments in the affirmative action program are implemented.

D. Recruiting efforts from all sources shall include special efforts to reach disabled persons who are qualified for a position.

E. Polydyne shall use all available resources to continue or establish on-the-job training for disabled employees.

Joseph Naizer, Vice-President – Human Resources
EEO Officer

AFFIDAVIT OF COMPLIANCE

POLYDYNE INC., hereby certifies that its products, CLARIFLOC CE-341 and CLARIFLOC C-6285, comply with all applicable AWWA standards and with the bid specifications for IFB-25-0020 Water and Wastewater Treatment Chemicals.

Boyd Stanley
Sr. Vice-President

03/10/2025
Date

EXCEPTION TO PROFESSIONAL LIBAILITY

Polydyne Inc. does not carry Professional Liability insurance, since it is not applicable to what we do. This coverage is generally carried by physicians, attorneys, architects, and engineers, that are marketing their services or expertise. Polydyne Inc. is selling a tangible product. Any liability arising from the use of our polymers would be covered under our General Liability coverage and Excess Liability.

SNF
WATER SCIENCE

POLYDYNE

PRODUCT BULLETIN

CLARIFLOC CE-341 COAGULANT

PRINCIPAL USES

CLARIFLOC CE-341 is a high charge density, liquid coagulant. It was specifically formulated to partially replace inorganic treatments (alum, ferric, etc.) and dual treatment applications requiring both organic and inorganic chemicals. CLARIFLOC CE-341 is effective for influent water clarification, secondary clarification, color removal, phosphate removal, treatment of oily wastewater and refuse thickening.

BENEFITS

Economical Treatment Program
Larger and Stronger Floc than Inorganics alone
Better Settling and Less Floc Carryover
Reduce Sludge Volume
Lower Flocculant Requirements
Reduces Caustic Usage for pH Control
Ease of Application

TYPICAL PROPERTIES

Physical Form	Clear to Straw Yellow Liquid
Density	11.2 Lbs./Gal
Freezing Point	10 F (-12C.)
Solubility	Totally Water Soluble

PREPARATION AND FEEDING

CLARIFLOC CE-341 is a low viscosity liquid product that can be diluted in-line using a simple static mixer. Recommend solution strength for feeding is 2-10% product. Dilution less than 2% may hydrolyze in medium-high alkalinity dilution waters causing loss of coagulant activity. Diluting the product is beneficial because there is less chance of overdose.

MATERIALS OF CONSTRUCTION

Cross-linked polyethylene, fiberglass, stainless steel or lined steel are the preferred materials of construction for bulk tanks. Stainless steel, mild steel, black iron, galvanized steel, copper or For pump heads and feed lines, PVC Teflon, Viton or Tygon are recommended.

MANUFACTURING SPECIFICATIONS

Specific Gravity	1.28 - 1.30
Product pH	> 1.0

HANDLING AND STORAGE

CLARIFLOC CE-341 has a suggested in-plant storage life of one year in unopened drums. For best results, store at 40-90 F. Should the product freeze, allow it to thaw throughly and mix well before attempting to feed. For spills of CLARIFLOC CE-341, sprinkle lime or soda ash over the spill area to neutralize followed by sawdust or vermiculite and sweep the material into approved chemical disposal containers

SAFETY INFORMATION

CLARIFLOC CE-341 is an acidic product that can irritate the skin and eyes, so rubber apron, gloves and goggles should be worn during the handling of this product. Anyone responsible for the procurement, use or disposal of CLARIFLOC CE-341should familiarize themselves with the appropriate safety and handling precautions outlined in the **POLYDYNE** Material Safety Data Sheet. In the event of an emergency with CLARIFLOC CE-341, contact Chemtrec anytime day or night at (800) 424-9300.

SHIPPING

CLARIFLOC CE-341 Coagulant is shipped in 55 gallon drums containing 550 pounds net and in 275gallon totes containing 2785 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)

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™ CE-341**

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:

Met. Corr. 1;H290, Acute Tox. 4;H302, Skin Corr. 1C;H314, Eye Dam. 1;H318

2.2. Label elements

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

Hazard symbol(s):

Signal word:	Danger
Hazard statement(s):	H290 - May be corrosive to metals H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage
Precautionary statement(s):	P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P390 - Absorb spillage to prevent material damage

2.3. Other hazards

None.

Ingredient(s) of unknown acute toxicity:	2% of the mixture consists of ingredient(s) of unknown acute toxicity.

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

Trade Secret Ingredient

Concentration/ -range:	25 - 35%

Notes
The specific chemical identity and/or exact concentration of composition has been withheld as a trade secret.

For explanation of abbreviations see section 16

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 with soap and plenty of water. Get medical attention if irritation develops and persists.

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. Get medical attention if symptoms occur.

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

Causes skin and eye burns. Inhalation of airborne droplets may cause irritation of the respiratory tract.

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

None.

Other information:
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:
Thermal decomposition can lead to release of irritating gases and vapors. Thermal decomposition may produce: Hydrogen chloride gas.

5.3. Advice for firefighters

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

Other information:
None.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Avoid contact with skin, eyes and clothing. 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

Use neutralizing agents. Adjust the pH to neutral with Sodium Carbonate if required.

Small spills:
Do not flush with water.Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. After cleaning, flush away traces with water.

Large spills:
Do not flush with water.Dike to collect large liquid spills. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. After cleaning, flush away traces with water.

Residues:
Flush away with large quantities of water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 9: Physical and chemical properties; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Wear necessary protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry place. Keep container closed when not in use. Incompatible with strong bases and oxidizing agents. Materials to avoid : Copper, zinc, and aluminum or their alloys. Ferrous metals. Brass. Mild steel. Stainless steel.

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.

b) Skin protection:
i) Hand protection: PVC or other plastic material gloves.
ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.

c) Respiratory protection:
No personal respiratory protective equipment normally required.

d) Additional advice:
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 flush into surface water. 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:	Liquid, Clear, Light yellow to amber.
b) Odour:	Slight
c) Odour Threshold:	No data available.
d) pH:	> 1 (See Technical Bulletin or Product Specifications for a more precise value, if available)
e) Melting point/freezing point:	No data available.
f) Initial boiling point and boiling range:	No data available.

g) Flash point:	Not applicable.
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:	No data available.
l) Vapour density:	No data available.
m) Relative density:	1.10 - 1.40
n) Solubility(ies):	Soluble in water.
o) Partition coefficient n-octanol/water (log value):	Not applicable.
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
r) Viscosity:	< 100 cP
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:	No data available.

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May be corrosive to metals.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Alkalies. Oxidizing agents. Copper, zinc, and aluminum or their alloys. Ferrous metals. Brass. Mild steel. Stainless steel.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Thermal decomposition may produce: Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat = 300 - 2000 mg/kg (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Causes burns.
Serious eye damage/eye irritation:	Risk of serious damage to eyes.
Respiratory/skin sensitisation:	No data available.
Mutagenicity:	No data available.
Carcinogenicity:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity:	No data available.
STOT - Single exposure:	No data available.
STOT - Repeated exposure:	No data available.
Aspiration hazard:	No hazards resulting from the material as supplied.

Relevant information on the hazardous components:

Trade Secret Ingredient

Acute oral toxicity:	LD50/oral/rat = 380 mg/kg
Acute dermal toxicity:	No data available.
Acute inhalation toxicity:	No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/eye irritation: No data available.

Respiratory/skin sensitisation: No data available.

Mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT - Single exposure: No data available.

STOT - Repeated exposure: No data available.

Aspiration hazard: No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish: No data available.

Acute toxicity to invertebrates: No data available.

Acute toxicity to algae: No data available.

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:

Trade Secret Ingredient

Acute toxicity to fish: LC50/Oncorhynchus mykiss/96 hours = 5.31 - 11.9 mg/L
LC50/Gambusia affinis/96 hours = 27.1 mg/L

Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours = 3.9 mg/L
Acute toxicity to algae:	No data available.
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.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation:	Not relevant (inorganic).
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Trade Secret Ingredient

Degradation:	No data available.
Hydrolysis:	No data available.
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:

Trade Secret Ingredient

Partition co-efficient (Log Pow): No data available.

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:

Trade Secret Ingredient

Koc: No data available.

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. Can be landfilled or incinerated, when in compliance with local regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. Completely drain containers and retain product residues. Dispose in accordance with local and national regulations.

Recycling:

The product and its packaging are not suitable for recycling.

SECTION 14: Transport information

Land transport (DOT)

14.1 UN number	UN 3264
14.2 UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Contains: Aluminium chloride, basic)

14.3 Transport hazard class(es)	8
14.4 Packing group	III
14.5 Environmental hazards	None.
14.6 Special precautions for user	May be corrosive to metals.
Sea transport (IMDG)	
14.1. UN number	UN 3264
14.2. UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Contains: Aluminium chloride, basic)
14.3. Transport hazard class(es)	8
14.4. Packing group	III
14.5. Environmental hazards	None.
Marine pollutant	No
14.6. Special precautions for user	May be corrosive to metals.
EmS	F-A, S-B
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.
Air transport (IATA)	
14.1. UN number	UN 3264
14.2. UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Contains: Aluminium chloride, basic)
14.3. Transport hazard class(es)	8
14.4. Packing group	III
14.5. Environmental hazards	None.
14.6. Special precautions for user	May be corrosive to metals.

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:
Acute.

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 :

Hazardous waste, if discarded

California Proposition 65 Information:

Not concerned.

SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	3
Flammability:	0
Instability:	0

HMIS:

Health:	3
Flammability:	0
Physical Hazard:	1
PPE Code:	D

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

SECTION 1. Identification of the substance/mixture and of the company/undertaking, SECTION 2. Hazards identification, SECTION 3. Composition/information on ingredients, SECTION 4. First aid measures, SECTION 5. Fire-fighting measures, SECTION 6. Accidental release measures, SECTION 7. Handling and storage, SECTION 8. Exposure controls/personal protection, SECTION 9. Physical and chemical properties, SECTION 10. Stability and reactivity, SECTION 11. Toxicological information, SECTION 12. Ecological information, SECTION 13. Disposal considerations, SECTION 14. Transport information, SECTION 15. Regulatory 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
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1
Met. Corr. 1 = Substance or mixture corrosive to metals Category Code 1
Skin Corr. 1C = Skin corrosion/irritation Category Code 1C

Hazard statements
H318 - Causes serious eye damage
H290 - May be corrosive to metals
H302 - Harmful if swallowed
H314 - Causes severe skin burns and 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: 17.01.a

RE181

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.

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
3004 EAST HIGHWAY 31

CORSICANA TX 75110

CUSTOMER NAME :
CITY OF OLATHE, KS - HAROLD ST WWTP

OA # : SAMPLE

OLATHE KS 000

CITY OF OLATHE, KS
PO BOX 768
OLATHE KS 66051
UNITED STATES

POLYDYNE PRODUCT NAME : CLARIFLOC C-6285

PURCHASE ORDER NR : SAMPLE **DATE : 07/22/2024**

AMOUNT : SAMPLE

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER RC24/6320M	QC TEST
BULK VISCOSITY	cps	500 - 2000	1160	1010 A
NON VOLATILE SOLIDS	%	45.5 - 52.5	48.2	1050 A
UL BROOKFIELD VISCOSITY	cps	3.10 - 3.90	3.70	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 999	75	1001 A

Date : 07/22/2024
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

CLARIFLOC C-6285 POLYMER

PRINCIPAL USES

CLARIFLOC C-6285 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.	41.0%
Specific Gravity	1.02 - 1.03
Freezing Point	7 F. (-14 C.)
Density	8.5 - 8.6 Lb/Gal

PREPARATION AND FEEDING

CLARIFLOC C-6285 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	500 - 2000 cPs
UL Viscosity	3.1 - 3.9

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-6285, 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-6285 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-6285 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)

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-6285**

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), 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

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 (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:
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 (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.

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.

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/Fish/96 hours = 10 - 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours = 10 - 100 mg/L (Estimated)
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:	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

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: 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, Ethylene oxide, 1,4-Dioxane

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 15. Regulatory 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.b

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.

SNF POLYDYNE

CERTIFICATE OF ANALYSIS

Polydyne Inc.
ONE CHEMICAL PLANT ROAD

RICEBORO GA 31323

CUSTOMER NAME :
CITY OF OLATHE, KS - CEDAR CREEK WWTP

OA # : SAMPLE

OLATHE KS 001

CITY OF OLATHE, KS
PO BOX 768
OLATHE KS 66051
UNITED STATES

POLYDYNE PRODUCT NAME : CLARIFLOC C-6286

PURCHASE ORDER NR : SAMPLE **DATE : 02/04/2025**

AMOUNT : SAMPLE

	UNIT	SPECIFICATION	QUALITY CONTROL BATCH NUMBER RC35/1043M	QC TEST
BULK VISCOSITY	cP	300 - 2000	820	1010 A
NON VOLATILE SOLIDS	%	45.5 - 52.5	47.3	1050 A
UL BROOKFIELD VISCOSITY	cP	2.40 - 3.10	2.91	1019 A
RESIDUAL ACRYLAMIDE	ppm	0 - 999	10	1001 A

Date : 02/04/2025
Signature
Todd Woodruff

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

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)

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-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), 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

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 (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:
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 (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.

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.

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/Fish/96 hours = 10 - 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours = 10 - 100 mg/L (Estimated)
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:	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
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:	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, Ethylene oxide, 1,4-Dioxane

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 15. Regulatory 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.b

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.

Exhibit B

CITY OF OLATHE INSURANCE REQUIREMENTS

These requirements apply to the vendor or contractor ("Vendor") entering into an Agreement with the City of Olathe ("City").

A. Insurance. Secure and maintain for the term of the Agreement insurance of such types and in at least such amounts as set forth below from a Kansas authorized insurance company which carries a Best's Policyholder rating of "A-" or better and carries at least a Class "VII" financial rating or better, unless otherwise agreed to by City:

1. Commercial General Liability: City must be listed by ISO endorsement or its equivalent as an additional insured on a primary and noncontributory basis on any commercial general liability policy of insurance. The insurance must apply separately to each insured against whom claim is made or suit is brought, subject to the limits of liability.

   Limits: Per Occurrence, including Personal & Advertising Injury and Products/Completed Operations: $1,000,000; General Aggregate: $2,000,000.

2. Business Auto Insurance: City must be listed by ISO endorsement or its equivalent as an additional insured on a primary and noncontributory basis on any automobile policy of insurance. Insurance must apply separately to each insured against whom claim is made or suit is brought, subject to liability limits.

   Limits: All Owned Autos; Hired Autos; and Non-Owned Autos: Per occurrence, combined single limit: $500,000.

   Notwithstanding the foregoing, if Vendor does not own any automobiles, then Vendor must maintain Hired and Non-Owned Auto insurance.

3. Worker's Compensation and Employer's Liability: Workers compensation insurance must protect Vendor against all claims under applicable state Worker's Compensation laws at the statutory limits, and employer's liability with the following limits.

   Limits: $500,000 Each Accident/$500,000 Policy Limit/$500,000 Each Employee

4. Professional Liability (***if applicable***): ***Unless excused by the Agreement with the City,*** Vendor must maintain for the term of this Agreement and for a period of three (3) years after the termination of this Agreement, Professional Liability Insurance.

   Limits: Each Claim: $1,000,000; General Aggregate: $1,000,000.

5. Cyber Insurance (***if applicable***): ***IF*** accessing the City's network or City's data, ***THEN*** maintain the following coverages throughout for the term of this

Agreement and for a period of three (3) years after the termination of this Agreement: Cyber Incident/Breach Response and Remediation Expenses, Digital Data Recovery, Privacy and Network Security Liability, and Notification Expense.
Limits: Per claim, each insuring agreement: $1,000,000; Aggregate: $1,000,000.

B. Exposure Limits. Above are minimum acceptable coverage limits and do not imply or place a liability limit nor imply that the City has assessed the risk that may be applicable to Vendor. Vendor must assess its own risks and if it deems appropriate and/or prudent maintain higher limits and/or broader coverage. The Vendor's insurance must be primary, and any insurance or self-insurance maintained by the City will not contribute to, or substitute for, the coverage maintained by Vendor.

C. Costs. Insurance costs must be at Vendor's expense and accounted for in Vendor's bid or proposal. Any deductibles or self-insurance in the above-described coverages will be the responsibility and at the sole risk of the Vendor.

D. Verification of Coverage

1. Must provide certificate of insurance on ISO form or equivalent, listing the City as certificate holder, and additional insured endorsements for requested coverages.
2. Any self-insurance must be approved in advance by the City and specified on the certificate of insurance. Additionally, when self-insured, the name, address, and telephone number of the claim's office must be noted on the certificate or attached in a separate document.
3. When any of the insurance coverages are required to remain in force after final payment, additional certificates with appropriate endorsements evidencing continuation of such coverage must be submitted along with the application for final payment.
4. For cyber insurance, the certificate of insurance confirming the required protection must confirm the required coverages in the "Additional Comments" section or provide a copy of the declarations page confirming the details of the cyber insurance policy.

E. Cancellation. No required coverage may be suspended, voided, or canceled, except after Vendor has provided thirty (30) days' advance written notice to the City.

F. Subcontractor's Insurance: If a part of this Agreement is to be sublet, Vendor must either cover all subcontractors under its insurance policies; ***OR*** require each subcontractor not so covered to meet the standards stated herein.