



# SAFETY DATA SHEET

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

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

### 1.1. Product identifier

Product name: **CLARIFLOC™ CE-2237**

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  
United States

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 mm<sup>2</sup>/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

#### Notes

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 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 (CO<sub>2</sub>). Dry powder.

Warning! Spills produce extremely slippery surfaces.

*Unsuitable extinguishing media:*

None known.

*5.2. Special hazards arising from the substance or mixture**Hazardous decomposition products:*

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO<sub>x</sub>), carbon oxides (CO<sub>x</sub>). Ammonia (NH<sub>3</sub>). 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

SECTION 8: Exposure controls/personal protection8.1. Control parameters

*Occupational exposure limits:*

*Distillates (petroleum), hydrotreated light*

ACGIH: 200 mg/m<sup>3</sup> (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.

*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. 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 properties9.1. Information on basic physical and chemical properties

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

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

## 9.2. Other information

None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under recommended storage conditions.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Oxidizing agents may cause exothermic reactions.

### 10.4. Conditions to avoid

Protect from frost, heat and sunlight.

### 10.5. Incompatible materials

Oxidizing agents.

### 10.6. Hazardous decomposition products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO<sub>x</sub>), carbon oxides (CO<sub>x</sub>). Ammonia (NH<sub>3</sub>). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

## SECTION 11: Toxicological information

### *11.1. Information on toxicological effects*

#### Information on the product as supplied:

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

#### Relevant information on the hazardous components:

##### Distillates (petroleum), hydrotreated light

<i>Acute oral toxicity:</i>	LD50/oral/rat > 5000 mg/kg (OECD 401)
<i>Acute dermal toxicity:</i>	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
<i>Acute inhalation toxicity:</i>	LC0/inhalation/4 hours/rat $\geq$ 4951 mg/m <sup>3</sup> (OECD 403) (Based on results obtained from tests on analogous products)
<i>Skin corrosion/irritation:</i>	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.
<i>Serious eye damage/eye irritation:</i>	Not irritating. (OECD 405)

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



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

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Information on the product as supplied:

<i>Acute toxicity to fish:</i>	LC50/Fish/96 hours = 10 - 100 mg/L (Estimated)
<i>Acute toxicity to invertebrates:</i>	EC50/Daphnia magna/48 hours = 10 - 100 mg/L (Estimated)
<i>Acute toxicity to algae:</i>	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
<i>Chronic toxicity to fish:</i>	No data available.
<i>Chronic toxicity to invertebrates:</i>	No data available.
<i>Toxicity to microorganisms:</i>	No data available.
<i>Effects on terrestrial organisms:</i>	No data available.
<i>Sediment toxicity:</i>	No data available.

#### Relevant information on the hazardous components:

##### Distillates (petroleum), hydrotreated light

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

Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/ 48h > 1000 mg/L.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), 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 degradation data of components, this product is expected to be readily (bio)degradable.
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),  $\alpha$ -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),  $\alpha$ -tridecyl-w-hydroxy-, branched*

*Partition co-efficient (Log Pow):* > 3

*Bioconcentration factor (BCF):* No data available.

*12.4. Mobility in soil*

*Information on the product as supplied:*

No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Koc: No data available.

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

Koc: > 5000

#### 12.5. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

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

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

### SECTION 14: Transport information

*Land transport (DOT)*

Not classified.

*Sea transport (IMDG)*

Not classified.

*Air transport (IATA)*

Not classified.

### SECTION 15: Regulatory information

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

Information on the product as supplied:

TSCA Chemical Substances Inventory:

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

US SARA Reporting Requirements:

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

SARA Title III Sections:

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

Section 304 - Reportable Quantity:  
Not concerned.

Section 313 (De minimis concentration):  
Not concerned.

Clean Water Act

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

Clean Air Act

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

CERCLA

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

RCRA status :

Not RCRA hazardous.

California Proposition 65 Information:

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

SECTION 16: Other informationNFPA and HMIS Ratings:

NFPA:

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 5. Fire-fighting measures, SECTION 8. Exposure controls/personal protection, 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

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Version: 20.01.a

ENCC046

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