

COUNTY OF ROCKLAND
Department of General Services
Purchasing Division

Contract Award Notification

Title: **Polymer Centrifuges – Furnish & Deliver**

Contract Period: **March 26, 2024, through March 25, 2025, w/ (4) 1-year options**

Original Date of Issue: 3/22/2024

Date of Revision:

BID No: RFB-RC-2024-015

Catalog: Wastewater

Authorized Users: **Rockland County Sewer District #1**

Address Inquiries To:

Name: Michelle Phillips
Title: Purchaser I
Phone: 845-364-2984
Fax: 845-364-3809
E-mail: phillipm@co.rockland.ny.us

Description

This contract is to furnish and deliver polymer suitable for use with the Rockland County Sewer District #1 (RCSD#1) existing polymer feed system and centrifuges to dewater its anaerobically digested sewage sludge

Contract #	Vendor Number	Contractor & Address	Telephone No.
BID 24-015	0000012061	Clean Waters, Inc. 26808 County Route 3 Plessis, NY 13675 Contact: Stephen Wardell stewardell@cleanwaters.us	315-778-5218 Cell -315-778-5218

County of Rockland CONTRACT

Dept. of General Services

Purchasing Division
50 Sanatorium Rd
Bldg A, 6th Fl, Room 609
POMONA NY 10970
www.rcpurchasing.com

Dispatch via Print

Contract ID BID 24-015	Page 1 of 1
Contract Dates 03/26/2024 to 03/25/2025	Currency USD
Freight Terms Polymer for Centrifuge F&D	Contract Maximum 75,000.00
Buyer PHILLIPS, MICHELE	Buyer Email phillipm@co.rockland.ny.us
	Phone 845/364-2984
	Fax 845/364-3809

Supplier 0000012061
Clean Waters, Inc.
Stephen C. Wardell
26808 Co. Rte 3
Plessis NY 13675


Phone 315/482-3787
Fax 802/331-1023
STEVEWARDELL@CLEANWATERS.US

Tax Exempt? Tax Exempt ID:

Line #	Supplier Item	Item Desc	Item ID	Price	UOM
1		POLYMER FOR CENTRIFUGES PER SPECIFICATIONS CHARGE PACK 285	88582010001	12.14000	Gallon

TERMS AND CONDITIONS OF RFB-RC-2024-015 INCORPORATED HEREIN BY REFERENCE.

Authorized Signature



COUNTY OF ROCKLAND - DGS-PURCHASING
BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

TITLE: Polymer for Centrifuges- Furnish and Deliver

RFB #: RFB-RC-2024-015

PURCHASES BY OTHER

LOCAL GOVERNMENTS, SCHOOL DISTRICTS, AND NON-PROFIT AGENCIES

As per the New York State General Municipal Law, all political subdivisions of New York State are allowed to make purchases through the resulting contract(s). As per Rockland County Procurement Policy, Non-Profit Agencies approved to participate in New York State's Contract Extension Program are authorized to make purchases through the resulting contract(s).

1. The County of Rockland shall make all contract award information available to other political subdivisions and non-profit agencies through our website: www.rcpurchasing.com
2. Any other political subdivision or Rockland County non-profit agency will issue purchase orders directly to vendors within the specified contract period referencing the County's contract and shall be liable for any payments due on such purchase orders; and shall accept sole responsibility for any payment due.
3. All purchases shall be subject to audit and inspection by the other political subdivisions and Rockland County non-profit agencies for which the purchase was made.
4. No officer, board or agency of a county, town, village, or school district shall make any purchase through the County when bids have been received for such purchase by such officer, board or agency, unless such purchase may be made upon the same terms, conditions and specifications at a lower price through the County.
5. All Bidders shall be on notice that as a condition of the award of a County contract, the successful bidder shall accept the award of a similar contract with any other political subdivision in New York State and Rockland County non-profit agencies authorized to use New York State's contracts, if called upon to do so. A listing of approved Rockland County non-profit agencies is available on the Purchasing Division's website at www.rcpurchasing.com. The County, however, will not be responsible for any debts incurred by the participants pursuant to this or any other agreement.
6. Necessary deviations from the County's specifications in the award of a participant contract, whether such deviations relate to quantities, or delivery points shall be resolved between the successful bidder and the other political subdivisions and Rockland County non-profit agencies.

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SPECIFICATIONS

A Virtual Pre-Bid via Microsoft Teams will be hosted on **January 16, 2024 at 10:00 a.m. - To Participate select the link below.**

**Microsoft Teams Meeting Link: [Click here for Pre-Bid](#) Meeting ID: 264 332 612 253
 Passcode: RjVEAj**

1. SCOPE

- 1.1. Provide a liquid polymer suitable for use with the Rockland County Sewer District # 1 (RCSD#1) existing polymer feed system and centrifuges to dewater its anaerobically digested sewage sludge from approximately 1% solids to 26% solids.
 - 1.1.1. The centrifuges are Model No. CA 505, manufactured by Westfalia Separator Inc, Northvale, New Jersey.
 - 1.1.2. The sludge is a mixture of primary and Secondary RBC sludge which has been anaerobically digested.
 - 1.1.3. Bulk deliveries 4,000 – 5,000 gallons to the above ground tank located at the RCSD#1 plant facility located at 4 Route 340 Orangeburg, NY 10962.
 - 1.1.3.1. Deliveries are required within one (1) week ARO.
 - 1.1.4. Current provider Clean waters – Charge Pack 285.

2. MANDATORY REQUIREMENTS

- 2.1. Each bidder shall prequalify by scheduling a Bench and Performance Test of vendor product(s) to determine their ability to meet RCSD#1 specifications.
 - 2.1.1. Vendors need to bench test their products before they will be allowed to participate in the performance testing.
 - 2.1.2. **Vendors wishing to obtain dewatering feed samples from District to bench test their products must submit their request to Richard Hagen – PHONE: 845-365-6466 no later than January 22, 2024 by 3:30 p.m.**
 - 2.1.3. After bench testing is completed, performance testing will be conducted at the District's Facility in Orangeburg, NY. **ALL Bench Tests and Performance Test shall be completed no later than February 16, 2024 by 3:30 p.m. To schedule and test date contact Richard Hagen at 845-365-6466.**
 - 2.1.3.1. All Polymer required for the performance test shall be provided by the prospective bidder at no cost to the RCSD#1.
 - 2.1.3.2. Vendors are responsible for removing polymer drums, containers, etc. used for their polymer test runs.

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- 2.1.3.2.1. Vendor will provide a deposit in the form of a check for \$500.00 made payable to the Rockland County Sewer District #1 before performing a bench and performance test.
- 2.1.3.2.2. This deposit is to cover the costs associated with removal of polymer drums, containers, etc. used for their polymer test runs. If the vendor opts to remove their drums, containers, etc., themselves, then the deposit will be returned after drum removal. If the vendor does not bring the deposit before their scheduled bench and performance test they will not be permitted to test.
- 2.1.3.3. Performance test shall be conducted for two consecutive days, eight hours per day, utilizing one of the Rockland County Sewer District # 1 **CA-505** centrifuges dewatering approximately 45,000 gallons of sludge per day.
- 2.1.3.4. The testing shall be performed between 7:00 a.m. and 3:30 p.m., Monday through Friday, at the convenience of the RCSD# 1.
- 2.1.3.5. All laboratory analyses shall be conducted by the RCSD#1 laboratory, the results of which shall be final.
- 2.1.3.6. The total suspended solids in the filtrate shall not exceed 500 mg/1. The quality of the filtrate shall not be of a nature that upsets the treatment plant process.
- 2.1.3.7. The anticipated quantity of sludge to be dewatered is approximately 45,000gallons per day at 1.0% - 2% solids.
- 2.1.3.8. The sludge cake % solids must average 26% or greater at the time of the performance test.
- 2.1.3.9. **FORM A** – This form detailing the polymer test results will be completed by the RCSD#1 for each test day.
 - 2.1.3.9.1. At the completion of the performance test, the RCSD#1 shall fax the test results to the vendor.
 - 2.1.3.9.2. Vendor shall review, sign and fax the results prior to the bid due date to RCSD#1 at 845-365-6686 – ATTN: Richard Hagen.
 - 2.1.3.9.3. Failure to acknowledge and confirm receipt of these results may deem your bid proposal non-responsive.

3. BACKGROUND

- 3.1. On March 26, 2019 solicitation RFB-RC-2009-009 to provide polymer for centrifuges was awarded at the bid price of \$12.05 per gallon.
- 3.2. Current Contract price is \$14.53 per gallon
- 3.3. Quantities are not guaranteed. RCSD#1 will order polymer on an as needed basis.
- 3.4. Below is the usage commencing on 03/26/2019 through 12/20/2023.

Total Annual Expenditures

2019 Expenses	\$232,734.78	19,314.09	gallons
2020 Expenses	\$283,801.11	23,551.96	gallons

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2021 Expenses	\$324,846.12	25,087.87	gallons
2022 Expenses	\$460,784.42	32,702.94	gallons
2023 Expenses	\$372,645.29	25,954.96	gallons

NOTE: Current contract expires 03/25/2024

PRICE

- 3.5. At the time of bid submittal, vendor shall enter the GALLONS POLY / DRY TON SLUDGE DEWATERED on the proposal page. This figure shall correspond with the figure calculated on the performance test result FORM A.
- 3.6. At the time of bid submittal, vendor shall enter the per gallon price.
- 3.7. The per lb. price shall be entered and used for information purposes only.

4. PRICE ADJUSTMENTS

- 4.1. The County recognizes this product or service has a price component that may have a commodity with changing costs. The Contractor/Supplier may request a Price Adjustment no more frequently than once each 6-month period.

A Price Adjustment request must be made in writing and include the reason for the request, documentation supporting the request (ie, commodity increases), the current pricing, and the requested revised pricing.

The County will review the Price Adjustment request. If the Price Adjustment is deemed reasonable the Price Adjustment request will be accepted by written acknowledgement. If the request is not accepted the County may entirely reject the request or may counter with revised pricing. In either case the County will provide a written explanation in support of the decision.

Any and all price adjustments shall be limited to the percentage increase in PPI Index Chemical Mfg. - PCU325---325 for the preceding Twelve (12) months. The County reserves the right to reject any request for price increase deemed excessive. Typically, a Price Adjustment that exceeds 5% will not be approved unless very unusual and significant changes have occurred in the industry.

In the event industry costs decline, the County shall have the right to receive, from the Contractor, a reasonable reduction in prices/pricing that reflect such cost changes in the

5. AWARD

- 5.1. This bid is being awarded to the lowest responsible responsive bidder on the basis of the Polymer performance test and bid price which results in a cost for Polymer per dry ton of sludge dewatered.
 - 5.1.1. The lowest bidder shall be determined on the basis of maximum yield. **YIELD IS DEFINED AS "COST OF POLYMER USED PER DRY TON OF SLUDGE DEWATERED"**.
 - 5.1.2. Vendor will be paid for the quantity of polymer required based on your pre-bid performance test regardless of whether more polymer is required to dewater the sludge to the specified % solids.

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- 5.2. On a monthly basis, the RCSD#1 will evaluate its polymer usage per dry ton of sludge dewatered and compare same to the pre-bid performance test. The contractor will be notified, in writing, if polymer usage per dry ton exceeds the pre-bid performance test. The contractor will be required to investigate and rectify the reasons within thirty days.
 - 5.2.1. Failure to satisfactorily correct the above situation may result in termination of your award of this bid, at which time the County may review and may award the balance of the contract to the 2nd lowest, responsive responsible bidder.
 - 5.2.2. Should it be determined by the contractor and RCSD#1 that operator behavior or any action by the RCSD#1 is the cause of the excess polymer, the contractor shall be notified, via written amendment, as specified above and shall be paid for the quantity of polymer used.
- 5.3. Winning bidder is responsible to clean on site polymer storage tanks and dispose of old polymer prior to first shipment. Temporary space packs are to be provided to avoid any interruption of the sludge dewatering during this process.

6. ADDITIONAL INFORMATION NEEDED TO BE SUBMITTED WITH BID – ELECTRONIC BID SUBMISSIONS SHALL PROVIDE THE FOLLOWING INFORMATION IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED – RESPONSES TO BE ENTERED ELECTRONICALLY THROUGH THE BONFIRE PORTAL.

- 6.1. Safety Data Sheet and Toxicity data from original manufacturer.
- 6.2. Contractor shall provide five (5) agencies currently using the polymer being offered for municipal sludge dewatering on centrifuges, (see experience form). Agencies listed shall be using this product for a minimum of one (1) year.
 - 6.2.1. EXPERIENCE
 - 6.2.1.1. Contractor shall document their firm has been in business providing specified polymer of similar specification and quantities for a minimum period of no less than five (5) years.
- 6.3. The shelf life of the product.
- 6.4. Minimum order quantity _____ gallons.
- 6.5. MATERIAL POLYMER MANUFACTURER: _____
- 6.6. ADDRESS: _____
- 6.7. PHONE NUMBER: _____
- 6.8. LOCAL REPRESENTATIVE’S NAME: _____
- 6.9. ADDRESS: _____
- 6.10. NAME OF CONTACT PERSON: _____ TELEPHONE: _____

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FORM - A

POLYMER TEST RESULTS FOR THE ROCKLAND COUNTY SEWER DISTRICT # 1

COMPANY NAME: _____

COMPANY REPRESENTATIVE: _____

COMPANY PHONE _____

COMPANY EMAIL: _____

COMPANY FAX: _____

POLYMER NAME AND PRODUCT CODE NUMBER: _____

DATES TESTED: _____

SLUDGE DEWATERED: _____ GALLONS

COMMODITY CODE: 88582010001

<u>AVERAGE OF SAMPLES TAKEN</u>		
FEED:	_____	% SOLIDS
CENTRATE:	_____	P. P. M.
CAKE:	_____	% SOLIDS
POLY FEED:	_____	% SOLIDS

DRY POUNDS DEWATERED: _____

DRY TONS DEWATERED: _____

POLYMER USED: _____ GALLONS

GALLONS POLY / DRY TON SLUDGE DEWATERED: _____

(this figure shall be entered on the bid proposal page at the time of submittal)

DISTRICT REPRESENTATIVE SIGNATURE: _____ DATE: _____

COMPANY REPRESENTATIVE SIGNATURE: _____ DATE: _____

Vendor shall review, sign and return (via fax) the results prior to the bid due date to RCSD#1 at 845-365-6686 – ATTN: Richard Hagen. Failure to acknowledge and confirm receipt of these results may deem your bid proposal non-responsive.

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PROPOSAL PAGE

COMPANY NAME: _____

MFG / PRODUCT CODE OF POLYMER OFFERED: _____

GALLONS POLY / DRY TON SLUDGE DEWATERED: _____

This figure shall correspond with the figure provided on the Performance Test Results – FORM A

POLYMER COST PER GALLON: \$ _____

COST OF POLYMER COST PER DRY TON DEWATERED: \$ _____

MAXIMUM YIELD


VENDOR SHALL PROVIDE THE PER LB. COST - FOR INFORMATIONAL PURPOSES ONLY:

POLYMER COST PER LB. \$ _____

Name of Polymer Bid: _____

Type: _____

Molecular Weight _____

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29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : CHARGE PACK 285

Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Flocculating agent

Details of the supplier of the safety data sheet Solenis LLC 500 Hercules Road Wilmington Delaware 19808 United States of America RegulatoryRequestsNA@solenis.com	Emergency telephone number 1-844-SOLENIS (844-765-3647) / 606-329-5705 Product Information 1-844-SOLENIS (844-765-3647)
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2

Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)

GHS Label element


Hazard pictograms :



Signal Word : Warning

Hazard Statements : Causes skin irritation.
May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves.

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Response:

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

If skin irritation occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Static Accumulating liquid

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
 Chemical nature : Static Accumulator
 Chemical nature : Defatter


Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
ALIPHATIC HYDROCARBON	254504001-5164	Flam. Liq. 4; H227 Skin Irrit. 2; H315 STOT SE 3; H336	>= 20.00 - < 30.00
ALCOHOL ALKOXYLATES	254504001-5466	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 1.50 - < 5.00

Trade Secret Composition - Conceal the Identity + Concentration

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
 Call a POISON CENTRE or doctor/physician if exposed or


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you feel unwell.
 Show this safety data sheet to the doctor in attendance.
 Symptoms of poisoning may appear several hours later.
 Do not leave the victim unattended.

- If inhaled : Move to fresh air.
 If unconscious place in recovery position and seek medical advice.
 Consult a physician after significant exposure.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- If swallowed : Obtain medical attention.
 Do NOT induce vomiting.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.
 This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.
 Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 Lung irritation
 Drowsiness
 confusion
 irregular heartbeat
 Convulsions
 Causes skin irritation.
 May cause drowsiness or dizziness.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local

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- circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
Nitrogen oxides (NO_x)
Hydrocarbons
toxic fumes
- Specific extinguishing methods :
- Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.

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Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Avoid exposure - obtain special instructions before use.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters


Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ALIPHATIC HYDROCARBON	254504001-5164	TWA	200 mg/m3 Non-aerosol (as total hydrocarbon vapor)	ACGIH
		REL	100 mg/m3	NIOSH/GUID E

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not

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provide adequate protection.

Hand protection	
Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
Skin and body protection	: Wear as appropriate: impervious clothing Safety shoes Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear resistant gloves (consult your safety equipment supplier).
Hygiene measures	: Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: viscous
Physical state	: liquid
Colour	: white
Odour	: mild, hydrocarbon-like
Odour Threshold	: No data available
pH	: ca. 3.7, Concentration: 10 g/l (20 °C)
Melting point/freezing point	: <5 °F / -15 °C No data available
Boiling point/boiling range	: 217 °F / 103 °C
Flash point	: > 212 °F / > 100 °C Method: Cleveland open cup
Evaporation rate	: < 1
Flammability (solid, gas)	: No data available
Flammability (liquids)	: Static Accumulating liquid

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Flammability (liquids) :
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapour pressure : 23.3 hPa (20 °C)
 Method: ASTM D 2879-86
 Relative vapour density : No data available
 Relative density : 1.03 - 1.04
 Density : Approximate 1.03 g/cm3
 Solubility(ies)
 Water solubility : soluble
 Solubility in other solvents : No data available
 Partition coefficient: n-octanol/water : No data available
 Thermal decomposition : No data available
 Viscosity
 Viscosity, dynamic : > 7 mPa.s (40 °C)
 Viscosity, kinematic : > 20.5 mm2/s (40 °C)
 Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
 Chemical stability : Stable under recommended storage conditions.
 Possibility of hazardous reactions : Product will not undergo hazardous polymerization.
 Conditions to avoid : Heat, flames and sparks.
 Incompatible materials : aluminum
 Copper
 Copper alloys
 Strong acids
 Strong bases
 Strong oxidizing agents
 strong reducing agents

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Hazardous decomposition
productscarbon dioxide and carbon monoxide
Hydrocarbons
Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATIONInformation on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion**Acute toxicity**

Not classified based on available information.

Components:**ALIPHATIC HYDROCARBON:**

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat, male and female): > 5.28 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.Acute dermal toxicity : LD 50 (Rabbit): > 2,000 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.**ALCOHOL ALKOXYLATES:**

Acute oral toxicity : LD 50 (Rat): 1,380 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Result: Possibly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

Components:**ALIPHATIC HYDROCARBON:**


Result: Irritating to skin

ALCOHOL ALKOXYLATES:

Result: Irritating to skin

Serious eye damage/eye irritation

Not classified based on available information.

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Product:

Result: Possibly irritating to eyes

Remarks: Unlikely to cause eye irritation or injury.

Components:

ALIPHATIC HYDROCARBON:

Result: Mildly irritating to eyes

ALCOHOL ALKOXYLATES:

Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

ALIPHATIC HYDROCARBON:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

Carcinogenicity:

IARC


No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC 50 (Pimephales promelas (fathead minnow)): 11 mg/l
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Ceriodaphnia dubia)): 1.75 mg/l
Exposure time: 48 h

Components:

ALIPHATIC HYDROCARBON:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 203
Remarks: Information given is based on data obtained from similar substances.


Toxicity to daphnia and other aquatic invertebrates : EL50 (Water flea (Daphnia magna)): 1.4 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): > 1 - 3 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Water flea (Daphnia magna)): 0.48 mg/l
Exposure time: 21 d
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 211
Remarks: Information given is based on data obtained from similar substances.

ALCOHOL ALKOXYLATES:

Toxicity to fish : LC50 (Fish): > 1 - 10 mg/l
Exposure time: 96 h
Test Type: static test

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): > 1 - 10 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae : ErC50 (Green algae): > 0.1 - 1.0 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia (water flea)): 0.17 mg/l
Exposure time: 21 d

Ecotoxicology Assessment
Acute aquatic toxicity : Very toxic to aquatic life.

Persistence and degradability

Product:

Biochemical Oxygen Demand (BOD) : Biochemical oxygen demand
383,000 mg/l

Chemical Oxygen Demand (COD) : 1,930,000 mg/l
Method: Chemical oxygen demand

Components:

ALIPHATIC HYDROCARBON:

Biodegradability : Result: Inherently biodegradable
Biodegradation: 58.6 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

ALCOHOL ALKOXYLATES:

Biodegradability : Result: Readily biodegradable

Bioaccumulative potential

Components:

No data available

Mobility in soil

Components:

No data available


Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

Components:

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - ROAD


Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

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INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods


***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	yes
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

- SARA 311/312 Hazards** : Acute Health Hazard
- SARA 313 Component(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- SARA 313**
- California Prop 65** : Proposition 65 warnings are not required for this product based on the results of a risk assessment.
- The components of this product are reported in the following inventories:**
- TSCA** : On TSCA Inventory
- DSL** : This product contains one or more components that are not on the Canadian DSL and have annual quantity limits.
- AUSTR** : On the inventory, or in compliance with the inventory
- ENCS** : On the inventory, or in compliance with the inventory
- KECL** : On the inventory, or in compliance with the inventory

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PHIL : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

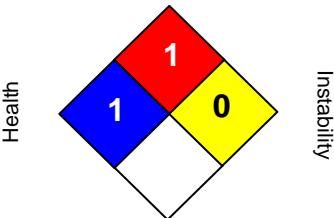
Registration: Trade Secret

Chemical Name	Identification number
ALIPHATIC HYDROCARBON	254504001-5164
ALCOHOL ALKOXYLATES	254504001-5466

SECTION 16. OTHER INFORMATION

Further information

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NFPA:	HMIS III:						
<p>Flammability</p>  <p>Health</p> <p>Instability</p> <p>Special hazard.</p>	<table border="1"> <tr> <td>HEALTH</td> <td>1</td> </tr> <tr> <td>FLAMMABILITY</td> <td>1</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	1	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	1						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements referred to under sections 2 and 3.


- H227 Combustible liquid.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H336 May cause drowsiness or dizziness.

Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

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The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by the Solenis Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists
 BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System

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