44141
NE0111686

Ducey, Patrick

From: Parker Thilmony <pthilmony@westernsugar.com>
Sent: Friday, June 29, 2018 6:41 PM
To: Ducey, Patrick
Subject: RE: NDEQ - ProSweet Notification
Attachments: image001.png; image001.png

Many thanks,

Parker
On Jun 29, 2018 3:51 PM, "Ducey, Patrick" <patrick.ducey@nebraska.gov> wrote:
Dear Mr. Thilmony and Western Sugar,

In continuation of our call, in my opinion as an NPDES permit writer and knowing the Western Sugar facility, the facility can apply the ProSweet OC2543 to the Mud pond. This Mud pond does not discharge to surface waters of the state, and if applied correctly, I do not anticipate issues to water quality. The Department had discussed the use of an agent to abate odor issues, and I think this should be okay. I will speak with Reuel Anderson and my supervisors about our call next week.

Thank you, and have a good weekend,

Patrick Ducey
Environmental Specialist II - NPDES Permit Writer Nebraska Department of Environmental Quality
1200 N St, Suite 400
P.O. Box 98922
Lincoln, Nebraska 68509-8922
Direct 402-471-2188
http://deq.ne.gov<http://deq.ne.gov/>

From: Parker Thilmony <pthilmony@westernsugar.com>
Sent: Friday, June 29, 2018 4:34 PM
To: Anderson, Reuel <reuel.anderson@nebraska.gov>; Ducey, Patrick <patrick.ducey@nebraska.gov>
Cc: Jerry L. Darnell <jldarnell@westernsugar.com>; Matthew Maybee <mmaybee@westernsugar.com>; Tracy Bentley <tbentley@westernsugar.com>; Laura D. Garcia <ldgarcia@westernsugar.com>; Amanda McAliney <amcaliney@westernsugar.com>; Chuck E. Gibbs <cegibbs@westernsugar.com>; David A. Devore <ddevore@westernsugar.com>; Rodney D. Perry <rdperry@westernsugar.com>; Heather Luther <hluther@westernsugar.com>; Josh Livingston <jlivingston@westernsugar.com>; Anurad Jayasooriya <ajayasooriya@westernsugar.com>; Jeff Kava <jkava@westernsugar.com>
Subject: NDEQ - ProSweet Notification

Mr. Anderson,
Please see attachments regarding Western Sugar's request for approval to apply ProSweet to our mud pond.
I am submitting in Jeff Kava's absence.
Regards,

Parker Thilmony
Vice President – Operations

Western Sugar Cooperative
7555 E. Hampden Ave., Suite 520
Denver, CO 80231-4837
Office: 303.813.3508
Cell: 701.429.8953
Fax: 303.695.1093
[WSC Company Logo]

Western Sugar Cooperative
(Grower Owned)

7555 E. Hampden Ave., Suite 520
Denver, Colorado 80231
Telephone: (303) 830-3939

June 28, 2018

Reuel Anderson
Unit Supervisor – Permits
Nebraska Department of Environmental Quality
1200 "N" Street
Suite 400, The Atrium
Lincoln, NE 68509

Dear Mr. Anderson;

As outlined in Operating Permit No: (NEO111686) Western Sugar Cooperative's Scottsbluff, Nebraska facility is requesting review and approval from the Nebraska Department of Environmental Quality (NDEQ) to begin applying via surface application ProSweet OC2543 to the Mud ponds as needed at the Scottsbluff facility.

ProSweet products have been successfully applied in water or onto sludge phases to selectively scavenge and/or inhibit these odorants, mitigating their release into the air.

With the NDEQ's approval, Western Sugar Cooperative under the direction of our Operator of Responsible in Charge, Sean Dibble will begin applying ProSweet OC2543 as needed.

Attached please find the ProSweet OC2543 safety data sheets (SDS) for your review and records.

If you have any questions, please contact Josh Livingston – Cooperative Director of Environmental at (303) 813-3576.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Base on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,

Jeff Kava
Factory Manager

Parker Thilmony
PARKER THILMONY
V.P. OPERATIONS

Cc: S. Dibble, AWWS
Cc: John Flint, NDEQ
Cc: P. Ducey, NDEQ

Water Technologies & Solutions

fact sheet

ProSweet* OC2543

odor control agent

- Highly effective hydrogen sulfide (H_2S) scavenging agent
- Reacts with H_2S and mercaptans to form stable reaction products
- No solid precipitates formed

description and use

ProSweet OC2543 is a SUEZ application patented non-amine based sulfide scavenger that complexes malodorous H_2S and mercaptans in water and wastewater streams. ProSweet OC2543 reacts with H_2S and mercaptans in water streams to form stable, liquid phase reaction products. Compared with traditional amine based sulfide scavenger, ProSweet OC2543 offers the benefits of effectiveness at broader pH range, a faster scavenging reaction rate, and a lower toxicity to wastewater treatment processes such as activated sludge systems making it a more effective sulfide scavenging agent.

ProSweet OC2543 is effective in scavenging H_2S and mercaptans from wastewater streams in steel, food, paper, refining and automotive industries, as well as in municipal applications.

treatment and feeding requirements

Proper treatment levels for ProSweet OC2543 depend on many factors such as stream flow rate or system volume, application point and H_2S concentration in air and water. Assessment of these factors will aid the SUEZ representative in recommending treatment rates, control procedures, and specific application points.

For optimum performance, ProSweet OC2543 may be base fed continuously or controlled by an appropriate variable signal (i.e., flow rate, ambient air H_2S concentration, etc.). If fed to a full flowing pipe, an injection quill is recommended. If fed to an open channel, no special equipment is required other than a metering pump.

For best treatment performance, any SUEZ odor control programs for sulfide scavenging should be evaluated by monitoring H_2S in the air at selected locations using an approved H_2S monitoring device.

ProSweet OC2543 is compatible with wide range of materials including copper, brass, stainless steel, most plastics, Teflon and Viton (Teflon and Viton are registered trademark of DuPont). The use of mild steel is not recommended. Consult your SUEZ representative for more information in the selection of tanks, pumps and fittings.

general properties

Physical properties of ProSweet OC2543 are shown on the Material Safety Data Sheet (MSDS), a copy is available upon request.

packaging information

ProSweet OC2543 is a liquid blend. Consult your SUEZ representative for delivery and container options.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.

Find a contact near you by visiting www.suezwatertechnologies.com and clicking on "Contact Us."

SAFETY DATA SHEET
PROSWEET* OC2543

1. Identification

Product identifier PROSWEET OC2543

Other means of identification None.

Recommended use Odor control

Recommended restrictions None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Sensitization, skin	Category 1B
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Specific target organ toxicity, repeated exposure (oral)	Category 1 (kidney, liver, nervous system)

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs (kidney, liver, nervous system) through prolonged or repeated exposure by ingestion.

Precautionary statement

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves.

Response	IF ON SKIN: Wash with plenty of soap and water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: 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 in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Glyoxal	107-22-2	40 - 60
Ethylene glycol	107-21-1	1 - 2.5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments	Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Move to fresh air. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Take off contaminated clothing and wash before reuse. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Keep eyelids apart. Remove contact lenses, if present and easy to do. Get medical attention immediately.
Ingestion	Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Narcosis. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Edema. Jaundice. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Please refer also to section no. 8 'Exposure controls' for further information. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Protect from freezing.

8. Exposure controls/personal protection

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Glyoxal (CAS 107-22-2)	TWA	0.1 mg/m3	SEN; A4

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
Glyoxal (CAS 107-22-2)	TWA	0.1 mg/m3	Inhalable fraction and vapor.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Glyoxal (CAS 107-22-2)	TWA	0.1 mg/m3	Inhalable fraction and vapor.
		0.042 ppm	Inhalable fraction and vapor.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Splash proof chemical goggles.

Skin protection

Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Chemical resistant gloves.

Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	
Color	Pale yellow to green
Physical state	Liquid
Odor	Odorless
pH (concentrated product)	2.5 Neat
pH in aqueous solution	3.1 (5% Solution)
Initial boiling point and boiling range	Not available.
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	21 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1
Relative density	1.27
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Viscosity	24 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0
Pour point	8 °F (-13 °C)
Specific gravity	1.275
VOC	0 % CALCULATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Avoid contact with strong bases.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs by inhalation. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.

Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Dermatitis. Behavioral changes. Decrease in motor functions. Edema. Narcosis. Rash. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause redness and pain. May cause an allergic skin reaction. Jaundice.

Information on toxicological effects

Acute toxicity May cause respiratory irritation. May cause an allergic skin reaction.

Product	Species	Test Results
PROSWEET OC2543 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Ethylene glycol (CAS 107-21-1)		
Acute		
Dermal		
LD50	Rabbit	9530 mg/kg
Inhalation		
LC50	Rat	> 3.75 mg/l, 4 Hour
Oral		
LD50	Rat	500 mg/kg
Glyoxal (CAS 107-22-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	2.41 mg/l, 4 Hour
Oral		
LD50	Rat	3300 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

ACGIH sensitization

GLYOXAL, INHALABLE FRACTION AND VAPOR (CAS 107-22-2) Dermal sensitization

Respiratory sensitization Not classified.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs (kidney, liver, nervous system) through prolonged or repeated exposure by ingestion.
Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
PROSWEET OC2543 (CAS Mixture)			
	LC50	Cyprindont fish	2800 mg/l, Static Acute Bioassay, 48 hour
		Fathead Minnow	883 mg/l, Static Renewal Bioassay, 96 hour
		Golden Orfe	> 460 mg/l, Acute Toxicity, 96 hour
		Mysid Shrimp	160 mg/l, Static Acute Bioassay, 96 hour
	NOEL	Cyprindont fish	1000 mg/l, Static Acute Bioassay, 48 hour
		Fathead Minnow	313 mg/l, Static Renewal Bioassay, 96 hour
Aquatic			
Algae	EC50	Algae	> 500 mg/l, Inhibition Bioassay, 96 hour
Crustacea	0% Mortality	Daphnia magna	62.5 mg/l, Static Renewal Bioassay, 48 hour
	LC50	Daphnia magna	353 mg/l, Static Renewal Bioassay, 48 hour

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Ethylene glycol	-1.36

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

- **COD (mgO2/g)** 350
- **BOD 5 (mgO2/g)** 175

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethylene glycol (CAS 107-21-1) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Ethylene glycol	107-21-1	1 - 2.5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Ethylene glycol (CAS 107-21-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene glycol (CAS 107-21-1) Listed: June 19, 2015

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

US - Massachusetts RTK - Substance List

Ethylene glycol (CAS 107-21-1)

US - Pennsylvania RTK - Hazardous Substances

Ethylene glycol (CAS 107-21-1)	Listed.

US - Rhode Island RTK

Ethylene glycol (CAS 107-21-1)

US. New Jersey Worker and Community Right-to-Know Act

Ethylene glycol (CAS 107-21-1)	Listed.
Glyoxal (CAS 107-22-2)	Listed.

US. California Proposition 65

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

16. Other information, including date of preparation or last revision

Issue date	Oct-02-2014
Revision date	Dec-15-2017
Version #	4.2
List of abbreviations	CAS: Chemical Abstract Service Registration Number TWA: Time Weighted Average STEL: Short Term Exposure Limit LD50: Lethal Dose, 50% LC50: Lethal Concentration, 50% NOEL: No Observed Effect Level COD: Chemical Oxygen Demand BOD: Biochemical Oxygen Demand TOC: Total Organic Carbon IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods Code ACGIH: American Conference of Governmental Industrial Hygienists TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
References:	No data available
Disclaimer	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.
Revision information	Product and Company Identification: Commercial Names Other information, including date of preparation or last revision: Prepared by
Prepared by	This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.