VEOLIA

SAFETY DATA SHEET
OPTISPERSE* ADJ0350

1. Identification

Product identifier **OPTISPERSE ADJ0350**

Other means of identification None.

Recommended use Alkaline cleaner

Recommended restrictions None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Oxidizing liquids	Category 3
	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1A
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement May intensify fire; oxidizer. May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention Keep away from heat. Take any precaution to avoid mixing with combustibles/. Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store away from clothing and other combustible materials. Wear protective gloves/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

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
N-hydroxyethylenediamine triacetic acid trisodium salt	139-89-9	2.5 - 10
Non-ionic linear polyether surfactant	61702-77-0	2.5 - 10
Poly(oxy-ethanediyl)phenyl hydroxy phosphate	39464-70-5	2.5 - 10
Potassium hydroxide	1310-58-3	2.5 - 10
Sodium nitrate	7631-99-4	2.5 - 10
Tetrapotassium pyrophosphate	7320-34-5	2.5 - 10

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 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Take off immediately all contaminated clothing. Wash off with soap and water. Rinse skin with water/shower. Get medical attention immediately. Chemical burns must be treated by a physician. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Rinse mouth. Do not induce vomiting. Call a physician or poison control center immediately. Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

General information Take off all contaminated clothing immediately. Contact with combustible material may cause fire. If you feel unwell, seek medical advice (show the label where possible). 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 Flood with water from a distance. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Foam or carbon dioxide may not be effective.

Specific hazards arising from the chemical May intensify fire; oxidizer. Greatly increases the burning rate of combustible materials. Containers may explode when heated. 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	Extinguish fires started by molten material by using appropriate method for the burning material. In case of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. In case of fire: Stop leak if safe to do so. 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. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	May intensify fire; oxidizer. Contact with combustible material may cause fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep away from clothing and other combustible materials. 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. Avoid contact with spilled material. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	Ventilate the area. Flush with plenty of water. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate the contaminated area. Wear appropriate protective equipment and clothing during clean-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. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Spread sand/grit.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take any precaution to avoid mixing with combustibles. Keep away from clothing and other combustible materials. Avoid all personal contact. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. See Section 8 of the SDS for Personal Protective Equipment.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep only in the original container. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) 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. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
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. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Other	Wear appropriate chemical resistant clothing.
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 1910.34 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	Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. 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.

9. Physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Not available.
Color	Colorless to yellow
Odor	Odorless
Odor threshold	Not available.
pH (concentrated product)	> 13 Neat
Melting point/freezing point	2 °F (-17 °C)
Initial boiling point and boiling range	219 °F (104 °C)
Flash point	> 199 °F (> 93 °C) P-M(CC)
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1
Relative density	1.24
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	7 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	May intensify fire; oxidizer.
pH in aqueous solution	12.8 (5% Solution)
Pour point	40 °F (4 °C)

VOC	0 % ESTIMATED

10. Stability and reactivity

Reactivity	Greatly increases the burning rate of combustible materials. May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat. Contact with incompatible materials. Contact with strong acids may cause a violent reaction releasing heat. Contact with strong acids may cause a violent reaction releasing heat.
Incompatible materials	Acids. Strong oxidizing agents. Combustible material. Reducing agents. Metals.
Hazardous decomposition products	Hydrogen chloride. Oxides of carbon, nitrogen and phosphorus evolved in fire. Oxides of carbon, nitrogen and phosphorus evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
OPTISPERSE ADJ0350		
Acute		
Dermal		
LC50	Rabbit	> 5000 (Calculated according to the GHS additivity formula)
Oral		
LD50	Rat	2489 g/kg (Calculated according to the GHS additivity formula)

Components	Species	Test Results
N-hydroxyethylenediamine triacetic acid trisodium salt (CAS 139-89-9)		
Acute		
Inhalation		
LC50	Rat	> 10.05 mg/l, 4 Hour
Oral		
LD50	Rat	1780 mg/kg
Non-ionic linear polyether surfactant (CAS 61702-77-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	840 mg/kg
Poly(oxy-ethanediyl)phenyl hydroxy phosphate (CAS 39464-70-5)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
Potassium hydroxide (CAS 1310-58-3)		
Acute		
Oral		
LD50	Rat	333 mg/kg

Components	Species	Test Results
Sodium nitrate (CAS 7631-99-4)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Oral		
LD50	Rat	3236 mg/kg
Tetrapotassium pyrophosphate (CAS 7320-34-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	2440 mg/kg

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization This product is not expected to cause respiratory sensitization. Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

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

Sodium nitrate (CAS 7631-99-4) 2A Probably carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Based on available data, the classification criteria are not met. Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
Aquatic			
Crustacea	IC25	Ceriodaphnia	17 mg/l, 7 day
	LC50	Ceriodaphnia	57 mg/l, 48 hour (pH adjusted)
		Daphnia magna	51.8 mg/l, 48 hour (pH adjusted)
	NOEL	Ceriodaphnia	25 mg/l, 48 hour (pH adjusted)
		Daphnia magna	25 mg/l, 48 hour (pH adjusted)
Fish	LC50	Fathead Minnow	59.3 mg/l, 96 hour (pH adjusted)
	NOEL	Fathead Minnow	50 mg/l, 96 hour (pH adjusted)

Persistence and degradability No data is available on the degradability of this product.

No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company. D002= Corrosive
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).
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

UN number	UN1760
UN proper shipping name	Corrosive liquids, n.o.s. (POTASSIUM HYDROXIDE, N-hydroxyethylenediamine triacetic acid trisodium salt), RQ(POTASSIUM HYDROXIDE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Not available.
ERG number	154

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

IATA

UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (POTASSIUM HYDROXIDE, N-hydroxyethylenediamine triacetic acid trisodium salt)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE, N-HYDROXYETHYLENEDIAMINE TRIACETIC ACID TRISODIUM SALT), RQ(POTASSIUM HYDROXIDE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

DOT

IATA; IMDG

15. Regulatory information

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

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Potassium hydroxide (CAS 1310-58-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
Oxidizer (liquid, solid, or gas)
Corrosive to metal
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Sodium nitrate	7631-99-4	2.5 - 10

Other federal regulations

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

1,4-DIOXANE (CAS 123-91-1)
Ethylene oxide (oxirane) (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Hydrochloric acid (CAS 7647-01-0)

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

Ethylene oxide (oxirane) (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Hydrochloric acid (CAS 7647-01-0)

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

California Proposition 65

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

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

1,4-DIOXANE (CAS 123-91-1)	Listed: January 1, 1988
Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: July 1, 1987
Formaldehyde (CAS 50-00-0)	Listed: January 1, 1988

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

Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: August 7, 2009

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

Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: February 27, 1987

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

Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: August 7, 2009

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

Issue date Aug-19-2014

Revision date Feb-19-2023

Version # 8.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0
Special hazards: OX

NFPA ratings

List of abbreviations

CAS: Chemical Abstract Service Registration Number
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
LD50: Lethal Dose, 50%
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 This document has undergone significant changes and should be reviewed in its entirety.

Prepared by This SDS has been prepared by Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).