

## 1. Identification

**Product identifier:** HYDREX 2914

Other means of identification: None.

**Recommended use of the chemical and restrictions on use**

Recommended use: Closed Loop Treatment. PROFESSIONAL USE ONLY

Recommended restrictions: No other uses are advised.

**Manufacturer/Importer/Supplier/Distributor information**

SupplierAddress: Veolia Water Technologies (SEA) PTE LTD  
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## 2. Hazards identification

**GHS classification**

Physical hazards:	Oxidizing liquids	Category 3
	Corrosive to metals	Category 1
Health hazards:	Acute toxicity, oral	Category 3
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Reproductive toxicity	Category 1
Environmental hazards:	Aquatic environment, acute hazard	Category 1
	Aquatic environment, long-term hazard	Category 1

**GHS label elements, including precautionary statements**

Pictograms:



Signal word: DANGER

Hazard statements:

- H272 - May intensify fire; oxidizer.
- H290 - May be corrosive to metals.
- H301 - Toxic if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H360 - May damage fertility or the unborn child.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.

**Precautionary statement** Observe good industrial hygiene practices.

Prevention:

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat.

P220 - Keep/Store away from clothing/flammable/combustible materials.  
P221 - Take any precaution to avoid mixing with combustibles/flammable.  
P234 - Keep only in original container.  
P260 - Do not breathe mist or vapor.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

Wash hands after handling  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER / doctor / paramedic.  
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER/doctor.  
P321 - Specific treatment (see First aid measures on this label).  
P363 - Wash contaminated clothing before reuse.  
P370 + P378 - In case of fire: Use water to extinguish.  
P390 - Absorb spillage to prevent material damage.

**Storage:**

Store away from incompatible materials  
P406 - Store in corrosive resistant container with a resistant inner liner.  
P410 - Protect from sunlight.

**Disposal:**

Dispose of waste and residues in accordance with local authority requirements  
P501 - Dispose of contents/container in accordance with local / regional / national / international regulations.

**Other hazards which do not result in classification:**

None known.

**Supplemental information**

2.03% of the mixture consists of component(s) of unknown acute oral toxicity

### 3. Composition/information on ingredients

Substance or mixture	Mixture		
Chemical name	Common name and synonyms	CAS Number	Concentration (%)
Sodium nitrite		7632-00-0	30 - 40
Sodium tetraborate		1303-96-4	< 1
Other components below reportable levels			> 59

### 4. First-aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.  
Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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:	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed:	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.
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 warm. Keep victim under observation. Symptoms may be delayed.
General information:	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance

## 5. Fire-fighting measures

Suitable extinguishing media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media:	Not available.
Specific hazards arising from the chemical:	May intensify fire; oxidizer.
Fire fighting equipment/instructions:	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Special protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Specific methods:	Not available.
General fire hazards:	May intensify fire; oxidizer

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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. For personal protection, see section 8 of the SDS
Environmental precautions:	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up:	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p>

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

## 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. Keep away from heat. Take any precaution to avoid mixing with combustibles. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities:	Keep away from heat. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

## 8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s)		
Singapore. PELs. (Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order)			
Components	Type	Value	
Sodium Tetraborate (1303-96-4)	TWA	5 mg/ m3	
Control parameters/Occupational exposure limits			
US. ACGIH Threshold Limit Values			
Components	Type	Value	Form
Sodium Tetraborate (1303-96-4)	STEL	6 mg/ m3	Inhalation fraction
	TWA	2 mg/ m3	Inhalation fraction
Appropriate engineering control measures:	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 eye/face protection. Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles and face shield are recommended.		
Skin protection:	Wear appropriate chemical resistant clothing. Chemical resistant gloves.		
Hand protection	Chemical resistant gloves.		
Other	Wear appropriate chemical resistant clothing. Chemical resistant gloves.		
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.		
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.		

## 9. Physical and chemical properties

Appearance	Clear
Physical state:	Liquid
Form:	Liquid
Color:	Colorless to pale yellow
Odor:	No Odor.
Odor threshold:	Not available.
pH (as is) @ 25 °C:	12.0 – 13.0
Melting point/freezing point:	< 32 °F (< 0 °C)
Initial boiling point:	Not available.
Flash point:	Not available.
Evaporation rate:	Not available.
Flammability:	Not available.
Flammability limit - lower(%):	Not available.
Flammability limit - upper(%):	Not available.
Explosive limit - lower (%):	Not available.
Explosive limit - upper (%):	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	Not available.
Solubility (Water):	Miscible (100%, soluble in all proportion)
Explosive property:	Not available.
Percent volatile (%):	Not available.
Oxidizing property:	Oxidizing agent
Specific gravity (@20 °C):	1.23 – 1.29

## 10. Stability and reactivity

Reactivity:	Reacts violently with strong acids. This product may react with oxidizing agents. May be corrosive to metals. Keep away from combustible material. Greatly increases the burning rate of combustible materials.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid:	Heat. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials:	Acids. Strong oxidizing agents. Oxidizing agents. Combustible material. Reducing agents. Metals.
Hazardous decomposition products:	No hazardous decomposition products are known.

## 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: Toxic if swallowed. Causes digestive tract burns

**Acute toxicity** Toxic if swallowed

Product	Acute		Species	Test Results
Hydrex 2914	Dermal	LD50	Rat	>= 5000 mg/kg
	Oral	LD50	Rat	>= 250 mg/kg Cal.
Symptoms:	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			
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:	Not a respiratory sensitizer			
Skin sensitization:	This product is not expected to cause skin sensitization			
Germ cell mutagenicity:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic			
Reproductive toxicity:	May damage fertility or the unborn child. This product is not expected to cause reproductive or developmental effects.			
Specific target organ toxicity single exposure:	Not clasified.			
Specific target organ toxicity repeated exposure:	Not clasified.			
Aspiration hazard:	Not an aspiration hazard.			
Chronic effects:	Prolonged inhalation may be harmful.			

## 12. Ecological information

Ecotoxicity: Very toxic to aquatic life with long lasting effects. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Acute		Species	Test Results
Hydrex 2914	Crustacea	EC50	Daphnia	>= 100 mg/l, 48 hours calculated
	Fish	LC50	Fish	>= 80 mg/l, 96 hours calculated
Persistence and degradability:	No data is available on the degradability of any ingredients in the mixture			
Bioaccumulative potential:	No data available.			
Mobility in soil:	No data available.			
Other adverse effects:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.			

## 13. Disposal considerations

Disposal methods/information: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions: Dispose in accordance with all applicable regulations

## 14. Transport information

**AND; ADR; IATA; IMDG; RID**



### ADR:

UN Nuber:	<b>UN 3098</b>
UN proper shipping name:	<b>OXIDIZING LIQUID, CORROSIVE, N.O.S. (Sodium nitrite)</b>
Transport hazard class(es):	
Class	5.1
Subsidiary risk	8
Label(s)	5.1 + 8
Hazard No. (ADR)	Not available
Tunnel restriction code	E
Packing group	III
Environmental hazards	No
Special precautions for user	Not available

### RID:

UN Nuber:	<b>UN 3098</b>
UN proper shipping name:	<b>OXIDIZING LIQUID, CORROSIVE, N.O.S. (Sodium nitrite)</b>
Transport hazard class(es):	
Class	5.1
Subsidiary risk	8
Label(s)	5.1 + 8
Packing group	III
Environmental hazards	No
Special precautions for user	Not available

### ADN:

UN Nuber:	<b>UN 3098</b>
UN proper shipping name:	<b>OXIDIZING LIQUID, N.O.S. (Sodium nitrite)</b>
Transport hazard class(es):	
Class	5.1
Subsidiary risk	8
Label(s)	5.1 + 8
Packing group	III
Environmental hazards	No
Special precautions for user	Not available

### IATA:

UN Nuber:	<b>UN 3098</b>
UN proper shipping name:	<b>OXIDIZING LIQUID, CORROSIVE, N.O.S. (Sodium nitrite)</b>
Transport hazard class(es):	
Class	5.1
Subsidiary risk	8
Packing group	III
Environmental hazards	No
ERG Code	5C
Special precautions for user	Not available
Other information:	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

### IMDG:

UN Nuber:	<b>UN 3098</b>
UN proper shipping name:	<b>OXIDIZING LIQUID, CORROSIVE, N.O.S. (Sodium nitrite)</b>
Transport hazard class(es):	
Class	5.1
Subsidiary risk	8



Packing group:	III
Environmental hazards:	No
EmS:	F-A, S-Q
Special precautions for user	Not available
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Not established.

## 15. Regulatory information

### Safety, health and environmental regulations specific for the product in question

Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III)	Not regulated.
Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule)	Not regulated.
Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013):	Not regulated.
Chemical Weapons Prohibition (Act):	Not applicable.
Environmental Protection and Management (Hazardous Substances) Regulations:	
Sodium tetraborate (CAS 1303-96-4)	5000 KG
Environmental Public Health Act:	
Sodium tetraborate (CAS 1303-96-4):	Excluding boric acid or sodium borate in medicinal preparations, cosmetics, toilet preparations and substances being preparations intended for human consumption; preparations containing boric acid or sodium borate or a combination of both where water or solvent is not the only other part of the composition.

### International regulations

Montreal Protocol / Stockholm Convention / Rotterdam Convention / Kyoto protocol / Basel Convention:	Not applicable.
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### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances(EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances(PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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).



## 16. Other information

References:	Not available
Issued by:	VEOLIA WATER Technologies (SEA) Pte Ltd
Prepared by:	Veolia Hydrex Team
Disclaimer:	<p>Veolia Water Technologies is not able to anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used.</p> <p>It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use and or nonrespect of Veolia Water Technologies' requirement.</p>
Issue date:	24-JUL-2014
Revision date:	07-MAR-2024
Key/legend:	Not applicable
Revision information:	This document has undergone significant changes and should be reviewed in its entirety