

# SAFETY DATA SHEET

## SPECTRUS OX1203

### 1. Identification

**Product identifier** SPECTRUS OX1203  
**Other means of identification** None.  
**Recommended use of the chemical and restrictions on use**  
**Recommended use** Solid microbial control agent.  
**Restrictions on use** Not available.

#### Company/undertaking identification

VEOLIA WATER TECHNOLOGIES & SOLUTIONS  
 AUSTRALIA PTY LTD  
 103 Raubers Road, Northgate, QLD 4013 Australia  
 C/o Buddle Findlay, Level 18, Hsbc Tower, 188 Quay  
 Street, Auckland, 1010, New Zealand  
 Tel: 1800 064 140 (AUS) 0800 945635 (NZ)  
 Email: vtc.vwts.apacproductregulatory.all@veolia.com

#### Emergency telephone

+61-290372994 (Aust) +64-98010034 (NZ)

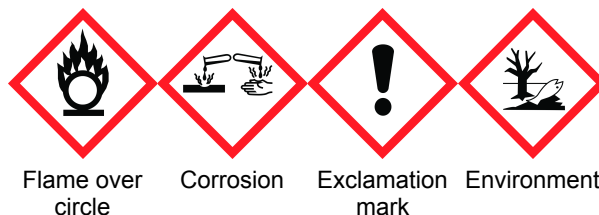
### 2. Hazard(s) identification

#### Classification of the hazardous chemical

<b>Physical hazards</b>	Oxidizing solids	Category 3
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1C
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard

#### Label elements, including precautionary statements

##### Hazard symbol(s)



##### Signal word

Danger

##### Hazard statement(s)

May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Very toxic to aquatic life.

##### Precautionary statement(s)

###### Prevention

Keep away from heat. Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

# SAFETY DATA SHEET

## SPECTRUS OX1203

<b>Response</b>	Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position 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 or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use appropriate media for extinction. Collect spillage.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental information</b>	Contact with acids liberates toxic gas.
<b>Other hazards which do not result in classification</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Bromo-chloro, 5,5-dimethyl hydantoin	32718-18-6	≥60

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Do not rub eyes. 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.
<b>Ingestion</b>	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.
<b>Personal protection for first-aid responders</b>	Take off all contaminated clothing immediately. Contact with combustible material may cause fire. 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. Wash contaminated clothing before reuse.
<b>Symptoms caused by exposure</b>	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.
<b>Medical attention and special treatment</b>	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.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for fire fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
<b>Hazchem code</b>	None.

# SAFETY DATA SHEET

## SPECTRUS OX1203

**General fire hazards** May intensify fire; oxidizer. Contact with combustible material may cause fire.

**Specific methods** Cool containers exposed to flames with water until well after the fire is out.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**For emergency responders** Keep unnecessary personnel away. Keep away from clothing and other combustible materials. Ensure adequate ventilation. Do not breathe dust. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** 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. Minimize dust generation and accumulation. Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Wear appropriate protective equipment and clothing during clean-up. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. 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.

### 7. Handling and storage

**Precautions for safe handling** Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat. Provide appropriate exhaust ventilation at places where dust is formed. Take any precaution to avoid mixing with combustibles. Keep away from clothing and other combustible materials. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls and personal protection

**Control parameters** Follow standard monitoring procedures.

**Occupational exposure limits** No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** 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. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

#### Individual protection measures, for example personal protective equipment (PPE)

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves. Frequent change is advisable.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Wear respirator with dust filter.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

# SAFETY DATA SHEET

## SPECTRUS OX1203

**Hygiene measures** Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. 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

<b>Appearance</b>	Tablets
<b>Physical state</b>	Solid.
<b>Form</b>	Not available.
<b>Color</b>	White to off-white
<b>Odor</b>	Halogen
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not Applicable
<b>Evaporation rate</b>	Slower than Ether
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 1 mmHg
<b>Vapor pressure temp.</b>	21 °C
<b>Vapor density</b>	< 1
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other physical and chemical parameters</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	May intensify fire; oxidizer.
<b>pH in aqueous solution</b>	4.7 (5% Dispersion)
<b>VOC</b>	0 % ESTIMATED

### 10. Stability and reactivity

<b>Reactivity</b>	Greatly increases the burning rate of combustible materials.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat. Contact with incompatible materials.
<b>Incompatible materials</b>	Combustible material. Reducing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

# SAFETY DATA SHEET

## SPECTRUS OX1203

### 11. Toxicological information

#### Information on possible routes of exposure

<b>Inhalation</b>	Dust may irritate respiratory system.
<b>Skin contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.

**Symptoms related to exposure** 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. Dusts may irritate the respiratory tract, skin and eyes.

**Acute toxicity** Harmful if swallowed.

Product	Species	Test Results
SPECTRUS OX1203		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg (Calculated according to GHS additivity formula)
<b>Oral</b>		
LD50	Rat	578 mg/kg

Components	Species	Test Results
Bromo-chloro, 5,5-dimethyl hydantoin (CAS 32718-18-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg

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

**Serious eye damage/irritation** Causes serious eye damage.

#### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Not available.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not available.

**Specific target organ toxicity - repeated exposure** Not available.

**Aspiration hazard** Not an aspiration hazard.

### 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life.

Product	Species	Test Results	
	LC50	American Oyster	> 640 mg/L, 96 hour
	NOEL	American Oyster	12 mg/L, 96 hour
<b>Aquatic</b>			
Crustacea	LC50	Daphnia magna	0.49 mg/L, 48 hour
		Grass Shrimp (Palaemonetes pugio)	14 mg/L, 96 hour
	NOEL	Daphnia magna	0.32 mg/L, 48 hour
			0.06 mg/L, 21 day

# SAFETY DATA SHEET

## SPECTRUS OX1203

Product	Species	Test Results
Fish	LC50	Grass Shrimp ( <i>Palaemonetes pugio</i> ) 6.5 mg/L, 96 hour
		Fathead Minnow 2.43 mg/L, 96 hour
		Rainbow Trout 0.94 mg/L, 96 hour
		Sheepshead Minnow 21.6 mg/L, 96 hour
	NOEL	Fathead Minnow 1.83 mg/L, 96 hour
		Rainbow Trout 0.54 mg/L, 96 hour
		Sheepshead Minnow 12.1 mg/L, 96 hour

<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture. No data is available on the degradability of any ingredients in the mixture.
- COD (mgO <sub>2</sub> /g)	920
- BOD 5 (mgO <sub>2</sub> /g)	6
- BOD 28 (mgO <sub>2</sub> /g)	11
- Closed Bottle Test (% Degradation in 28 days)	2
- Zahn-Wellens Test (% Degradation in 28 days)	0
- TOC (mg C/g)	250
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available for this product.
<b>Other adverse effects</b>	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

<b>Disposal methods</b>	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.
<b>Residual waste</b>	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).
<b>Contaminated packaging</b>	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

#### ADG

UN number	3085
UN proper shipping name	OXIDISING SOLID, CORROSIVE, N.O.S. (Bromo-chloro, 5,5-dimethyl hydantoin)
Transport hazard class(es)	
Class	5.1
Subsidiary risk	8
Packing group	III
Environmental hazards	Yes
Hazchem code	1W
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

#### IATA

UN number	3085
UN proper shipping name	Oxidizing solid, corrosive, n.o.s. (BROMO-CHLORO, 5,5-DIMETHYL HYDANTOIN)
Transport hazard class(es)	
Class	5.1
Subsidiary risk	8
Packing group	III
Environmental hazards	Yes
ERG Code	140

# SAFETY DATA SHEET

## SPECTRUS OX1203

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** 3085  
**UN proper shipping name** OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromo-Chloro, 5,5-Dimethyl Hydantoin), MARINE POLLUTANT

**Transport hazard class(es)**

**Class** 5.1

**Subsidiary risk** 8

**Packing group** III

**Environmental hazards**

**Marine pollutant** Yes

**EmS** F-A, S-Q

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

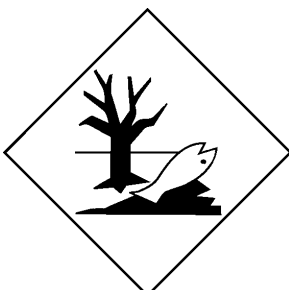
**ADG**



**IATA; IMDG**



**Marine pollutant**



**General information** IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

### 15. Regulatory information

**Safety, health and environmental regulations**

**National regulations**

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

Group Standard - Cleaning Products - Oxidising, Corrosive HSR002591



# SAFETY DATA SHEET

## SPECTRUS OX1203

---

**Australia Medicines & Poisons Appendix A**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix B**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix D**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix E**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix F**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix G**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix H**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix I**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix J**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Appendix K**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 10**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 2**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 3**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 4**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 5**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 6**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 7**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 8**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 9**

Poisons schedule number not allocated.

**High Volume Industrial Chemicals (HVIC)**

Not listed.

**Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)**

Not listed.

**National Pollutant Inventory (NPI) substance reporting list**

Not listed.

**Prohibited Carcinogenic Substances**

Not regulated.

**Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)**

Not listed.

**Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)**

Not listed.

**Restricted Carcinogenic Substances**

Not regulated.

**International regulations**



# SAFETY DATA SHEET

## SPECTRUS OX1203

### Stockholm Convention

Not applicable.

### Rotterdam Convention

Not applicable.

### Kyoto protocol

Not applicable.

### Montreal Protocol

Not applicable.

### Basel Convention

Not applicable.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
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)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
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).

<b>NSF Registered and/or meets</b>	Registration No. – 140983
<b>USDA (according to 1998 guidelines):</b>	Category Code(s): G5 Cooling and retort water treatment products G7 Boiler, steam line treatment products – nonfood contact

### 16. Other information

<b>Issue date</b>	18-March-2021
<b>Revision date</b>	12/02/2023
<b>Key abbreviations or acronyms used</b>	AICIS: Australian Inventory of Industrial Chemicals.
<b>References:</b>	No data available
<b>Revision information</b>	Physical and chemical properties: Form Other information: Disclaimer

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