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SAFETY DATA SHEET

SPECTRUS NX1106

1. Identification

Product identifier SPECTRUS NX1106

Other means of identification None.

Recommended use of the chemical and restrictions on use

Recommended use Water-based microbial control agent.

Restrictions on use Not available.

Company/undertaking identification

SUEZ WATER TECHNOLOGIES & SOLUTIONS PTY

LIMITED

103 Raubers Road, Northgate, QLD 4013 Australia Level 6, 63 Albert Street, Auckland, 1010, New Zealand

Tel: 1800 064 140 (AUS) 0800 945635 (NZ)

Emergency telephone

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

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1
Sensitization, skin Category 1

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Environmental hazards Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment, Category 2

long-term hazard

Label elements, including precautionary statements

Hazard symbol(s)



Corrosion Exclamation Environment mark

Signal word Danger

Hazard statement(s) Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious

eye damage. May cause respiratory irritation. Toxic to aquatic life. Toxic to aquatic life with long

lasting effects.

Precautionary statement(s)

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. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face

protection.

Response 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. Collect spillage.





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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.

Other hazards which do not result in classification

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Magnesium nitrate	10377-60-3	1 - < 3
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)	55965-84-9	1 - < 3

4. First-aid measures

Description of necessary first aid measures

Inhalation Move to fresh air. Call a poison center or doctor/physician if you feel unwell.

Skin contact 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.

Eye contact Rinse with water. Continue rinsing. Call a physician or poison control center immediately.

Ingestion If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical

attention if symptoms occur.

Personal protection for first-aid

responders

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.

Symptoms caused by 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. May cause respiratory irritation.

blindness could result. May cause respiratory irritation.

Medical attention and special

treatment

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.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Water fog. Foam. Dry chemical 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 fire

fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

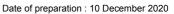
Move containers from fire area if you can do so without risk.

Hazchem code None

General fire hazards No unusual fire or explosion hazards noted.

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.







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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

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.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

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 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 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.

7. Handling and storage

Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Wear appropriate Precautions for safe handling

personal protective equipment. Avoid release to the environment. Observe good industrial hygiene

practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. 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 (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, for example personal protective equipment (PPE)

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

Skin protection

Hygiene measures

Hand protection Wear appropriate chemical resistant gloves. Other Wear appropriate chemical resistant clothing.

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

> 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 Liquid Physical state Liquid. **Form** Liquid.

> Color Yellow to blue-green

Slight Odor



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Odor threshold Not available.

pH (concentrated product) 3

pH in aqueous solution 4 (5% SOL.)

Melting point/freezing point -2 °C Initial boiling point and boiling 104 °C

range

Flash point Not available.

Evaporation rate < 1 (Ether = 1)

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 18 mm Hg / 2.4 kPa

Vapor pressure temp. $21 \,^{\circ}\text{C}$ Vapor density $< 1 \, (\text{Air} = 1)$

Relative density 1.03 Relative density temperature 21 °C

Solubility(ies)

Solubility (water) 100 %

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 8 cps
Viscosity temperature 21 °C
Other physical and chemical parameters

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

pH in aqueous solution 4 (5% SOL.)

Pour point 1 °C

Specific gravity 1.033

VOC 0 % (Calculated)

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Not available. **Possibility of hazardous** Not available.

reactions
Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with

incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition No hazardous decomposition products are known.

products

11. Toxicological information

Information on possible routes of exposure

Inhalation May cause irritation to the respiratory system.







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Skin contact Causes severe skin burns. May cause an allergic skin reaction.

Eye contact Causes serious eye damage. Ingestion Causes digestive tract burns.

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may Symptoms related to exposure

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result. May cause respiratory irritation.

Acute toxicity

Product Species Test Results

SPECTRUS NX1106 (CAS Mixture)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Inhalation

Rat LC50 > 5 mg/l, 4 Hours

Oral

LD50 Rat 4468 mg/kg Components **Species Test Results**

Magnesium nitrate (CAS 10377-60-3)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Oral

LD50 Rat 5400 mg/kg

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1) (CAS 55965-84-9)

Acute Dermal

LD50 Rabbit 90 mg/kg

Inhalation

Rat LC50 0.33 mg/l, 4 Hour

Oral

LD50 Rat 67 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Direct contact with eyes may cause temporary irritation. Serious eye damage/irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

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

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

mutagenic or genotoxic.

Carcinogenicity Not available.

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

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

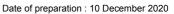
Not available.

Not an aspiration hazard. **Aspiration hazard**

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.







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Product		Species	Test Results			
SPECTRUS NX1106 (CAS Mixture)						
Aquatic						
Crustacea	10% Mortality	Daphnia magna	6 mg/L, Flow-Thru Bioassay, 48 H			
	LC50	Daphnia magna	2.9 mg/L, Flow-Thru Bioassay, 48 H			
		Mysid Shrimp	5.14 mg/L, Static Acute Bioassay, 96 H			
Fish	LC50	Bluegill Sunfish	12.1 mg/L, Static Acute Bioassay, 96 H			
		Fathead Minnow	6.6 mg/L, Flow-Thru Bioassay, 96 H			
		Rainbow Trout	8.7 mg/L, Static Acute Bioassay, 96 H			
			4.6 mg/L, Chronic Bioassay, 14 D			
		Sheepshead Minnow	20 mg/L, Static Acute Bioassay, 96 H			
	LOEC	Fathead Minnow	4 mg/L, Early Life Stage Test, 36 D			
	NOEL	Bluegill Sunfish	6.5 mg/L, Static Acute Bioassay, 96 H			
		Fathead Minnow	2.5 mg/L, Flow-Thru Bioassay, 96 H			
			1.3 mg/L, Early Life Stage Test, 36 D			
		Rainbow Trout	6.5 mg/L, Static Acute Bioassay, 96 H			
			3.3 mg/L, Chronic Bioassay, 14 D			
		Sheepshead Minnow	12 mg/L, Static Acute Bioassay, 96 H			

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 0.49

247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no.

220-239-6] (3:1)

Mobility in soil No data available for this product.

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.

Environmental fateToxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the

event of unprofessional handling or disposal.

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

- COD (mgO2/g) 17 (calculated data)
- BOD 5 (mgO2/g) 0 (calculated data)
- BOD 28 (mgO2/g) 0 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)
- Zahn-Wellens Test (% 0 (calculated data)

Degradation in 28 days)

- TOC (mg C/g) 6 (calculated data)

13. Disposal considerations

Disposal methodsCollect 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.

Residual wasteEmpty 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.



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14. Transport information

ADG

UN number 3265

UN proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)

Transport hazard class(es)

Class 8 Subsidiary risk Ш Packing group **Environmental hazards** Yes Hazchem code 2X

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

IATA

UN number 3265

UN proper shipping name Transport hazard class(es) Corrosive liquid, acidic, organic, n.o.s. (5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)

8 Class Subsidiary risk Ш Packing group **Environmental hazards** No. **ERG Code**

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

IMDG

UN number

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. **UN proper shipping name**

Not established.

(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)

Transport hazard class(es)

8 Class Subsidiary risk Ш Packing group **Environmental hazards**

Marine pollutant No. **EmS** F-A. S-B

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

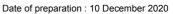
ADG



IATA; IMDG









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Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

Safety, health and environmental regulations

National regulations

Group Standard - Water Treatment Chemicals (Corrosive) - HSR002681

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (May 2018).

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.

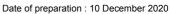
Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.







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Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)

Not listed

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

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.

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

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations

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 inve	ntory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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)	Yes
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 "Voe" indicates that all compo	ments of this product comply with the inventory requirements administered by the governing cou	atru(e)

^{*}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).

NSF Registered and/or meets USDA (according to 1998

Registration No. – 144533 Category Code(s):

guidelines):

G5 Cooling and retort water treatment products

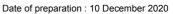
G7 Boiler, steam line treatment products - nonfood contact

16. Other information

Issue date 10-December-2020

Revision date 10/12/2020







SAFETY DATA SHEET

SPECTRUS NX1106

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: Product and Company Identification

Hazards Identification: EU Hazard Classifications Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties

Toxicological Information: Toxicological Data

Ecological Information: Ecotoxicity

Transport Information: Hazreg Values Transportation Regulatory Information: Risk Phrases - Labeling

HazReg Data: Pacific Rim GHS: Classification



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