



# SAFETY DATA SHEET

## SPECTRUS\* NX1106

### 1. Identification

**Product identifier** SPECTRUS NX1106  
**Other means of identification** None.  
**Recommended use** Water-based microbial control agent.  
**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 1  
Serious eye damage/eye irritation Category 1  
Sensitization, skin 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** Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/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. 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 or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal** Dispose of contents/container to an approved facility.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Magnesium nitrate	10377-60-3	1 - 2.5
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	55965-84-9	1 - 2.5

**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** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. 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 immediately with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do. Keep eyelids apart. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion** If ingestion of a large amount does occur, call a poison control center immediately. 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. 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. Corrosive material. Possible mucosal damage may contraindicate the use of gastric lavage. It may not be advisable to induce vomiting.

**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** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**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. Corrosive liquid.

**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.

**General fire hazards** No unusual fire or explosion hazards noted.

### 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 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.

<b>Methods and materials for containment and cleaning up</b>	Absorb the spill with spill pillows or inert solids such as clay or vermiculite. Transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer in accordance with local procedures, permits and regulations. DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material.
<b>Environmental precautions</b>	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

<b>Precautions for safe handling</b>	Avoid all contact with reducing agents, oils, greases, organics and acids. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store upright in original vented container. Product evolves carbon dioxide gas slowly. Store samples in plastic bottles only. Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	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.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	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.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	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.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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>	
<b>Color</b>	Yellow to blue-green
<b>Physical state</b>	Liquid
<b>Odor</b>	Slight
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	3
<b>pH in aqueous solution</b>	4 (5% SOL.)
<b>Melting point/freezing point</b>	28 °F (-2 °C)
<b>Initial boiling point and boiling range</b>	220 °F (104 °C)
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.

### 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.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.03
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	8 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Pour point	33 °F (1 °C)
Specific gravity	1.033
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. None under normal conditions.
Incompatible materials	Strong oxidizing agents. Reducing agents. Amines. mercaptans
Hazardous decomposition products	Oxides of carbon, nitrogen, and sulphur evolved in fire. Hydrogen chloride.

### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
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	Causes severe skin burns and eye damage. May cause respiratory irritation. May cause an allergic skin reaction.
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Product	Species	Test Results
SPECTRUS NX1106 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg

Product	Species	Test Results
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hours
<i>Oral</i>		
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 and 2-methyl-4-isothiazolin-3-one (CAS 55965-84-9)

**Acute**

*Dermal*

LD50 Rabbit 90 mg/kg

*Inhalation*

LC50 Rat 0.33 mg/l, 4 Hour

*Oral*

LD50 Rat 67 mg/kg

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

**Skin corrosion/irritation** Causes skin burns.

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

**Respiratory or skin sensitization**

**Respiratory sensitization** This product is not expected to cause respiratory sensitization.

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

**Germ cell mutagenicity** Not classified.

**Carcinogenicity** Not classified.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

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

**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.

**12. Ecological information**

**Ecotoxicity**

Product	Species	Test Results
SPECTRUS NX1106 (CAS Mixture)		
LC50	Bluegill Sunfish	12.1 mg/L, Static Acute Bioassay, 96 hour
	Fathead Minnow	6.6 mg/L, Flow-Thru Bioassay, 96 hour
	Sheepshead Minnow	20 mg/L, Static Acute Bioassay, 96 hour
LOEC	Fathead Minnow	4 mg/L, Early Life Stage Test, 36 day
NOEL	Bluegill Sunfish	6.5 mg/L, Static Acute Bioassay, 96 hour

Product		Species	Test Results
		Fathead Minnow	2.5 mg/L, Flow-Thru Bioassay, 96 hour
			1.3 mg/L, Early Life Stage Test, 36 day
		Sheepshead Minnow	12 mg/L, Static Acute Bioassay, 96 hour
<b>Aquatic</b>			
Crustacea	10% Mortality	Daphnia magna	0.6 mg/L, Flow-Thru Bioassay, 48 hour
	LC50	Daphnia magna	2.9 mg/L, Flow-Thru Bioassay, 48 hour
Fish	LC50	Rainbow Trout	8.7 mg/L, Static Acute Bioassay, 96 hour
			4.6 mg/L, Chronic Bioassay, 14 day
	NOEL	Rainbow Trout	6.5 mg/L, Static Acute Bioassay, 96 hour
			3.3 mg/L, Chronic Bioassay, 14 day

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one 0.49

**Mobility in soil** No data available.

**Other adverse effects** Not available.

**Persistence and degradability**

- 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) 0 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days) 0 (calculated data)
- TOC (mg C/g) 6 (calculated data)

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in approved pesticide facility or according to label instructions.

**Hazardous waste code** 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** 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** UN3265

**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** -

**Packing group** II

**Special precautions for user** Not available.

**ERG number** 153

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

**IATA**

**UN number** UN3265  
**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** -  
**Packing group** II  
**Environmental hazards** Yes  
**ERG Code** 153  
**Special precautions for user** Not available.

**IMDG**

**UN number** UN3265  
**UN proper shipping name** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE), MARINE POLLUTANT  
**Transport hazard class(es)**  
    **Class** 8  
    **Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
    **Marine pollutant** Yes  
**EmS** F-A, S-B  
**Special precautions for user** Not available.

**DOT**



**IATA; IMDG**



**Marine pollutant**



**General information**

IMDG Regulated Marine Pollutant.

## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
This is an EPA registered biocide and is exempt from TSCA inventory requirements. See FIFRA registry number.

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

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

#### SARA 311/312 Hazardous chemical

Yes

#### Classified hazard categories

Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization  
Specific target organ toxicity (single or repeated exposure)

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Magnesium nitrate	10377-60-3	1 - 2.5

### Other federal regulations

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

Not regulated.

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

Not regulated.

#### Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

#### 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).

**FIFRA registration number** 3876-143

**TSCA** This is an EPA registered biocide and is exempt from TSCA inventory requirements.

**FIFRA hazard statement** This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER  
Corrosive  
Causes irreversible eye damage and skin burns  
May be fatal if absorbed through skin  
Harmful if swallowed  
Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals  
This chemical is toxic to terrestrial and aquatic plants, fish and aquatic invertebrates

**Food and drug administration** The ingredients in this product are approved by FDA under 21 CFR 176.300.



**NSF Registered and/or meets  
USDA (according to 1998  
guidelines):**

Registration No. – 144533  
Category Code(s):  
G5 Cooling and retort water treatment products  
G7 Boiler, steam line treatment products – nonfood contact

**US state regulations**

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

No ingredient listed.

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

No ingredient listed.

**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.

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

**Issue date** Dec-12-2014

**Revision date** Jan-25-2019

**Version #** 4.0

**NFPA ratings** Health: 3  
Flammability: 0  
Instability: 0

**NFPA ratings**



**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
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  
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  
Composition / Information on Ingredients: Disclosure Overrides  
Composition/information on ingredients: Composition comments  
Exposure controls/personal protection: Appropriate engineering controls  
Physical & Chemical Properties: Multiple Properties  
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection  
Regulatory information: California Prop 65  
HazReg Data: Europe - EU  
GHS: Classification

**Prepared by**

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

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