



# SAFETY DATA SHEET

## SPECTRUS NX1102

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name or designation of the mixture      SPECTRUS NX1102

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses      Solvent-based microbial control agent.  
Uses advised against      None known.

#### 1.3. Details of the supplier of the safety data sheet

AECI Water	Postal address
1 Wharhirst Road	AECI Water
Umbogintwini	P.O.Box 2954,
Durban.4126	Kempton Park, 1620
Kwa Zulu Natal South Africa	Gauteng.
Tel: +27 11 971 0400	
Website: www.improchem.co.za - www.aeciworld.com	
E-mail: aeciwater@aeciworld.com	

#### 1.4. Emergency telephone number

+27 800 SPILLS or +27 0800 774557 or +27 31 904 1400  
(Office Hrs)

Multilingual emergency number (24/7)

Europe, Middle East, Africa, Israel (Europe and English language speaking countries):

+44(0)1235 239670

Middle East & Africa (speaking Arabic):

+44(0)1235 239671 VEOLIAWATERTECH29003-NCEC

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Physical hazards

Corrosive to metals	Category 1	H290 - May be corrosive to metals.
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##### Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
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Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
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Skin corrosion/irritation	Category 1	H314 - Causes severe skin burns and eye damage.
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Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
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Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
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Specific target organ toxicity - repeated exposure (inhalation)	Category 1 (hematopoietic system, Respiratory tract)	H372 - Causes damage to organs (hematopoietic system, Respiratory tract) through prolonged or repeated exposure by inhalation.
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### Environmental hazards

Hazardous to the aquatic environment,  
long-term aquatic hazard

Category 2

H411 - Toxic to aquatic life with  
long lasting effects.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** 2,2-dibromo-2-cyanoacetamide (DBNPA) (CAS 10222-01-2) (255 g/l)  
Monobromo-3-Nitrilopropionamide

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H372 Causes damage to organs (hematopoietic system, Respiratory tract) through prolonged or repeated exposure by inhalation.  
H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements

##### Prevention

P260 Do not breathe mist/vapours.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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 CENTRE/doctor.

##### Storage

Not available.

##### Disposal

Not available.

#### Supplemental label information

None.

### 2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. This product contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Regulation (EU) 2018/605 or Regulation (EU) 2017/2100.

## SECTION 3: Composition/information on ingredients

### Mixtures

**Chemical description** 2,2-dibromo-2-cyanoacetamide (DBNPA) in organic solvent

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
2,2-dibromo-2-cyanoacetamide (DBNPA)	20 - < 30	10222-01-2 233-539-7	-	607-747-00-7	<b>Classification:</b> Acute Tox. 3;H301, Acute Tox. 2;H330, Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1;H317, STOT RE 1;H372, Aquatic Acute 1;H400(M=1), Aquatic Chronic 1;H410(M=1)
Monobromo-3-Nitrilopropionamide	< 1	1113-55-9	-	-	<b>Classification:</b> Acute Tox. 3;H301, Skin Irrit. 2;H315, Eye Irrit. 2;H319



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### List of abbreviations and symbols that may be used above

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. ATE: Acute toxicity estimate.

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

#: This substance has been assigned Union workplace exposure limit(s).

The full text for all H-statements is displayed in section 16.

### SECTION 4: First aid measures

<b>General information</b>	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. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
<b>4.1. Description of first aid measures</b>	
<b>Inhalation</b>	Move to fresh air. Oxygen or artificial respiration if needed. Call a poison centre or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	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 centre immediately.
<b>Ingestion</b>	Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>4.2. Most important symptoms and effects, both acute and delayed</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. Prolonged exposure may cause chronic effects.
<b>4.3. Indication of any immediate medical attention and special treatment needed</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.

### SECTION 5: Firefighting measures

<b>5.1. Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>5.2. Special hazards arising from the substance or mixture</b>	Above 120°C bromine, cyanogen bromide and bromoacetonitrile are formed. Oxides of carbon and nitrogen evolved in fire. Hydrogen bromide.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Special fire fighting procedures</b>	Move containers from fire area if you can do so without risk. Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### SECTION 6: Accidental release measures

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. It is possible to pass or work near the treated system during product application.
<b>For emergency responders</b>	Keep unnecessary personnel away. Avoid breathing mist/vapours. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.



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<b>6.2. Environmental precautions</b>	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. Transport and store in approved containers according to applicable national and international regulations.
<b>6.3. Methods and material for containment and cleaning up</b>	<p>Prevent entry into waterways, sewer, basements or confined areas. 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.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece).</p> <p>Never return spills to original containers for re-use. Place in waste disposal container. Decontaminate with 10 % sodium bisulfite. Use 10 parts to 1 part product. Flush the spill area with copious amounts of water to chemical sewer in accordance with local procedures, permits and regulations. The biocidal effect of this product will be deactivated by this procedure. Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.</p>
<b>6.4. Reference to other sections</b>	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

### SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Acidic. Do not mix with alkaline material. Do not breathe mist/vapours. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Avoid release to the environment.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store at temperatures below 35°C Minimise exposure to light. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store locked up. Store in a cool, dry place out of direct sunlight. Keep only in the original container. Store in a well-ventilated place.
<b>7.3. Specific end use(s)</b>	<p>Only for industrial users</p> <p>The material which has been in contact with this product can be cleaned with water. Product is typically used on an intermittent basis to control microbiological growth. It may be used in a programme which includes oxidizing biocides and other treatment chemicals. The minimum contact time is: &gt; 20 minutes for biocide action. The recommended dosage of SPECTRUS NX1102 may range between 20 and 50 mg/l under normal conditions, and between 50 and 500 mg/l (depending on the contamination levels and water pH) for curative treatment. SPECTRUS NX1102 injection should be carried out in regular doses, by a dosage pump and a timer. The injection via a dosage pump is recommended but not obligatory. Proper treatment levels and ways of addition depend on many factors such as microbial contamination, conditions particular for a given installation, and system operating characteristics. The product should be used in accordance with control procedures that Veolia Water Technologies &amp; Solutions establishes for a specific application.</p>

### SECTION 8: Exposure controls/personal protection

<b>8.1. Control parameters</b>	
<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>Derived no effect levels (DNELs)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.
<b>8.2. Exposure controls</b>	



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<b>Appropriate engineering controls</b>	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. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield. Spoggles UVEX, Pyramex Capstone SANS1404 - EN166
<b>Skin protection</b>	
<b>- Hand protection</b>	Wear appropriate chemical resistant gloves. Full shoulder length neoprene gloves (Protection against unintentional short-term contact) Full shoulder length rubber gloves (Protection against unintentional short-term contact) Full shoulder length nitrile gloves (Protection against unintentional short-term contact) Full shoulder length butyl gloves (Protection against unintentional short-term contact) Penetration time: > 240 min Coating thickness: > 0,35 mm SANS1228 - EN 388, EN 374, EN 374-3, PVC C400
<b>- Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Chemical resistant clothing that ensures full coverage of the hands, arms and body. SANS 1068; SANS 434; EN 471, EN 469 or EN 533
<b>Respiratory protection</b>	In case of insufficient ventilation, use a breathing mask with filter type: ABEK-P3 SANS 50140; SANS 50141
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	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.
<b>Environmental exposure controls</b>	Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels. Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid
<b>Colour</b>	Yellow to amber
<b>Odour</b>	Slight
<b>Melting point/freezing point</b>	-18 °C
<b>Boiling point or initial boiling point and boiling range</b>	Not available.
<b>Flammability</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit – upper (%)</b>	Not available.
<b>Flash point</b>	> 93 °C P-M(CC)
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>pH (concentrated product)</b>	1,9 Neat



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**Kinematic viscosity** Not available.

### Solubility

**Solubility (water)** 100 %

**Partition coefficient (n-octanol/water) (log value)** Not available.

**Vapour pressure** < 0,1 mmHg

**Vapour pressure temp.** 21 °C

### Density and/or relative density

**Relative density** 1,27

**Relative density temperature** 21 °C

**Vapour density** > 1

**Particle characteristics** Not available.

### 9.2. Other information

**9.2.1. Information with regard to physical hazard classes** No relevant additional information available.

### 9.2.2. Other safety characteristics

**Evaporation rate** Slower than Ether

**pH in aqueous solution** 3,3 (5% Solution)

**Pour point** -15 °C

**Shelf life** 360 Days

**Viscosity** 64 mPa.s

**Viscosity temperature** 21 °C

**VOC** 0 % Calculated

## SECTION 10: Stability and reactivity

**10.1. Reactivity** May be corrosive to metals.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Keep away from heat. Avoid temperatures exceeding the flash point.

**10.5. Incompatible materials** Strong bases. Strong oxidising agents. Metals.

**10.6. Hazardous decomposition products** Hydrogen bromide.

Keep below 60 °C. Above 120 °C bromine, cyanogen bromine and bromoacetonitrile are formed. Oxides of carbon and nitrogen evolved in fire.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

**Inhalation** Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure by inhalation.

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

**Eye contact** Causes serious eye damage.

**Ingestion** Causes digestive tract burns. Harmful if swallowed.

**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.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** Harmful if inhaled. Harmful if swallowed.



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Product	Species	Test Results
SPECTRUS NX1102		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
<b>Inhalation</b>		
LC50	Rat	1,3 mg/l, 4 hours (Calculated according to GHS additivity formula)
<b>Oral</b>		
LD50	Rat	510 mg/kg (Calculated according to GHS additivity formula)

Components	Species	Test Results
2,2-dibromo-2-cyanoacetamide (DBNPA) (CAS 10222-01-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
<i>Mist</i>		
LC50	Rat	0,24 mg/l, 4 hour
<b>Oral</b>		
LD50	Rat	118 mg/kg

Monobromo-3-Nitrilopropionamide (CAS 1113-55-9)

**Acute**

**Oral**

LD50 Rat 282 mg/kg

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory sensitisation</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitisation</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs (hematopoietic system, Respiratory tract) through prolonged or repeated exposure by inhalation.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Mixture versus substance information</b>	No information available.

### 11.2. Information on other hazards

**Endocrine disrupting properties**

This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

**Other information**

Not available.

## SECTION 12: Ecological information

**12.1. Toxicity** Toxic to aquatic life with long lasting effects.



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Product	Species	Test Results	
<b>Aquatic</b>			
Algae	ErC50	Algae	1,5 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	0,65 mg/l, 21 days (Reproduction EC50)
	LC50	Daphnia magna	3,3 mg/l, 48 hours
			1,3 mg/l, 21 days
		Mysid Shrimp	0,72 mg/l, 48 hours (Data given as toxicity of active component.)
	LOEC	Daphnia magna	0,6 mg/l, 21 days (Reproduction LOEC)
Fish	NOEL	Daphnia magna	2,15 mg/l, 48 hours
			0,35 mg/l, 21 days (Reproduction NOEL)
	LC50	Bluegill sunfish	6,5 mg/l, 96 hours
		Fathead minnow	8,7 mg/l, 96 hours
		Rainbow trout	2,3 mg/l, 96 hours
Other		Sheepshead minnow	7 mg/l, 96 hours
	NOEL	Fathead minnow	3,1 mg/l, 96 hours
		Rainbow trout	1,8 mg/l, 96 hours
	LC50	Marine Copepod (Acartia tonsa or other)	1,78 mg/l, 48 hours

### 12.2. Persistence and degradability

Readily biodegradable.

- COD (mgO<sub>2</sub>/g) 959
- TOC (mg C/g) 732

### 12.3. Bioaccumulative potential

#### Partition coefficient

#### n-octanol/water (log K<sub>ow</sub>)

2,2-dibromo-2-cyanoacetamide (DBNPA) 0,79

#### Bioconcentration factor (BCF)

2,2-dibromo-2-cyanoacetamide (DBNPA) 13  
 Species: Fish

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

**12.6. Endocrine disrupting properties** This product contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Regulation (EU) 2018/605 or Regulation (EU) 2017/2100.

**12.7. 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.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** 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** Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations. 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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<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.  Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

### SECTION 14: Transport information

<b>ADR</b>	
14.1. UN number or ID number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-dibromo-2-cyanoacetamide (DBNPA, mixture)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Tunnel restriction code	(E)
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
<b>RID</b>	
14.1. UN number or ID number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-dibromo-2-cyanoacetamide (DBNPA, mixture)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
<b>ADN</b>	
14.1. UN number or ID number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-dibromo-2-cyanoacetamide (DBNPA, mixture)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
<b>IATA</b>	
14.1. UN number or ID number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-dibromo-2-cyanoacetamide (DBNPA, mixture)
14.3. Transport hazard class(es)	
Class	8



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Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
ERG Code	Not available.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

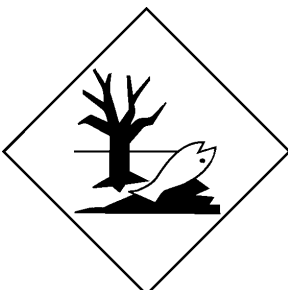
### IMDG

14.1. UN number or ID number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-dibromo-2-cyanoacetamide (DBNPA, mixture)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-B
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
14.7. Maritime transport in bulk according to IMO instruments	Not established.

### ADN; ADR; IATA; IMDG; RID



### Marine pollutant



## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended  
Not listed.
- Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended  
Not listed.



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**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EU) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

2,2-dibromo-2-cyanoacetamide (DBNPA) (CAS 10222-01-2)

### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

### National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

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

Registration No. – 140725

Category Code(s):

G7 Boiler, steam line treatment products – nonfood contact

### Biocides

11: Preservatives for liquid-cooling and processing systems

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

\*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).

## SECTION 16: Other information

### List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization.

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

EC50: Effective Concentration 50%.

IATA: International Air Transport Association.



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IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.  
IMDG: International Maritime Dangerous Goods.  
LC50: Lethal Concentration 50%.  
LD50: Lethal Dose 50%.  
MARPOL: International Convention for the Prevention of Pollution from Ships.  
NOEL: No observed effect level.  
PBT: Persistent, bioaccumulative and toxic.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
STEL: Short term exposure limit.  
TOC: Total Organic Carbon.  
TWA: Time Weighted Average.  
vPvB: Very persistent and very bioaccumulative.  
COD: Chemical Oxygen Demand  
EC-No: European Commission Number  
BOD: Biochemical oxygen demand.  
Safety data sheets of raw materials.

### References

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H301 Toxic if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H372 Causes damage to organs through prolonged or repeated exposure by inhalation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

### Revision information

Product and Company Identification: Commercial Names  
SECTION 2: Hazards identification: Response  
SECTION 2: Hazards identification: 2,3. Other hazards  
SECTION 4: First aid measures: Inhalation  
SECTION 8: Exposure controls/personal protection: - Hand protection  
SECTION 8: Exposure controls/personal protection: - Other  
Toxicological Information: Toxicological Data  
SECTION 12: Ecological information: 12,6. Endocrine disrupting properties  
SECTION 13: Disposal considerations: Disposal methods/information  
SECTION 16: Other information: References  
SECTION 16: Other information: Further information  
GHS: Classification

### Training information

Follow training instructions when handling this material.

### 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.

### Based on EC Directive / Regulations

(EU) No. 528/2012 and amendments (Biocidal Product Regulation)  
All active ingredients have been identified/notified for the relevant Product Types according to the First Review Regulation on existing active substances (EU) No. 1451/2007  
South African Standard : SABS ISO 11014-1:2009 - SANS 10234:2008

### Further information

Correction in Section: 1,2,3,11,12