

# 081 FILTRITE SANIT-EEZY SPA SANITISER

## Clark Rubber

Chemwatch Hazard Alert Code: **2**

Chemwatch: **5637-09**

Issue Date: **29/09/2023**

Version No: **2.1**

Print Date: **05/02/2025**

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

S.GHS.AUS.EN.E

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

#### Product Identifier

<b>Product name</b>	081 FILTRITE SANIT-EEZY SPA SANITISER
<b>Chemical Name</b>	Not Applicable
<b>Synonyms</b>	Not Available
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains poly(hexamethylenebiguanide hydrochloride))
<b>Chemical formula</b>	Not Applicable
<b>Other means of identification</b>	Not Available

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

<b>Relevant identified uses</b>	Control of bacteria in swimming pools. Use according to manufacturer's directions.
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#### Details of the manufacturer or supplier of the safety data sheet

<b>Registered company name</b>	Clark Rubber
<b>Address</b>	National Support Office, 1/12 Elizabeth Street, Hawthorn VIC 3122 Australia
<b>Telephone</b>	+61 3 8727 9914
<b>Fax</b>	+61 3 9729 3266
<b>Website</b>	<a href="https://www.clarkrubber.com.au">https://www.clarkrubber.com.au</a>
<b>Email</b>	reception@clarkrubber.com.au

#### Emergency telephone number

<b>Association / Organisation</b>	CHEMWATCH EMERGENCY RESPONSE (24/7)
<b>Emergency telephone number(s)</b>	+61 1800 951 288
<b>Other emergency telephone number(s)</b>	+61 3 9573 3188

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

<b>Poisons Schedule</b>	Not Applicable
<b>Classification [1]</b>	Acute Toxicity (Oral) Category 4, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Carcinogenicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
<b>Legend:</b>	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

#### Label elements

Hazard pictogram(s)	
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Signal word	Warning
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**Hazard statement(s)**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary statement(s) Prevention**

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

**Precautionary statement(s) Response**

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.
P330	Rinse mouth.

**Precautionary statement(s) Storage**

P405	Store locked up.
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**Precautionary statement(s) Disposal**

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
32289-58-0	2	poly(hexamethylenebiguanide hydrochloride)
Not Available	balance	Ingredients determined not to be hazardous

**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; \* EU IOELVs available

**SECTION 4 First aid measures**

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## Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul>

## Indication of any immediate medical attention and special treatment needed

Suggested treatment regime for biguanide intoxication:

- ▶ Establish airway and assist ventilation with positive end expiratory pressure, if required, after endotracheal intubation. Circulatory competence must be maintained - monitor blood pressure carefully.
- ▶ Induction of emesis with Ipecac may be contraindicated as a result of biguanide-induced gastric mucosal irritation.
- ▶ Gastric lavage, following endotracheal intubation may be preferred. Activated charcoal and cathartics placed through the lavage tube may be useful.
- ▶ Forcing fluids may be counterproductive and result in fluid overload.
- ▶ Haemodialysis may be useful as, in addition to facilitating the removal of biguanide and excess lactate, it permits the administration of adequate amounts of sodium bicarbonate without the risk of fluid overload or hypernatraemia.
- ▶ Hypoglycaemia can be treated immediately with 50 ml of 50% glucose intravenously in adults or 0.5 g/kg per dose in children.
- ▶ Acidosis may be treated with IV sodium bicarbonate (1-2 mEq/kg); doses of 44-50 mEq every 15 minutes may be required. Ensure that arterial blood gases, serum sodium chloride, potassium and ECG are monitored. The patient may require 200-400 mEq of sodium bicarbonate.
- ▶ Dehydration and hypovolaemia may require placement of a central venous line.
- ▶ Hypotension may be treated by placing the patient in Trendelenburg's position and the cautious use of IV fluids. Pressor amines should be used cautiously, with blood lactate monitoring, as they may increase lactic acid production.

ELLENHORN and BARCELOUX: Medical Toxicology; Diagnosis and Treatment of Human Poisoning. 1988

## SECTION 5 Firefighting measures

## Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

## Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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## Advice for firefighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> </ul>

Continued...

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	<ul style="list-style-type: none"> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>▶ May emit acrid smoke.</li> <li>▶ Mists containing combustible materials may be explosive.</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>) other pyrolysis products typical of burning organic material.</p>
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## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

Minor Spills	<p>Environmental hazard - contain spillage.</p> <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	<p>Environmental hazard - contain spillage. Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> </ul>
Other information	<ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>

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Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>

SECTION 8 Exposure controls / personal protection

Control parameters


Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Ingredient	Original IDLH	Revised IDLH
poly(hexamethylenebiguanide hydrochloride)	Not Available	Not Available

Exposure controls

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.</p> <p>An approved self contained breathing apparatus (SCBA) may be required in some situations.</p> <p>Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Type of Contaminant:</th> <th style="width: 20%;">Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s (50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s (100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s (200-500 f/min.)</td> </tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td> <td>2.5-10 m/s (500-2000 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Lower end of the range</th> <th style="width: 50%;">Upper end of the range</th> </tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </tbody> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)	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<b>Individual protection measures, such as personal protective equipment</b>																					
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> </ul>																				

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	<p>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].</p>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<p>▶ Wear chemical protective gloves, e.g. PVC.</p> <p>▶ Wear safety footwear or safety gumboots, e.g. Rubber</p> <p><b>NOTE:</b></p> <p>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</p> <p>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</p> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>· frequency and duration of contact,</li> <li>· chemical resistance of glove material,</li> <li>· glove thickness and</li> <li>· dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>· Contaminated gloves should be replaced.</li> </ul> <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> <li>· Excellent when breakthrough time &gt; 480 min</li> <li>· Good when breakthrough time &gt; 20 min</li> <li>· Fair when breakthrough time &lt; 20 min</li> <li>· Poor when glove material degrades</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<p>▶ Overalls.</p> <p>▶ P.V.C apron.</p> <p>▶ Barrier cream.</p> <p>▶ Skin cleansing cream.</p> <p>▶ Eye wash unit.</p>

**Respiratory protection**

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1	-
up to 50	1000	-	A-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	A-2
up to 100	10000	-	A-3

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100+		Airline**
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\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid; mixes with water.		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	1
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	4-6	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	99-102	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	>98	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available
<b>Heat of Combustion (kJ/g)</b>	Not Available	<b>Ignition Distance (cm)</b>	Not Available
<b>Flame Height (cm)</b>	Not Available	<b>Flame Duration (s)</b>	Not Available
<b>Enclosed Space Ignition Time Equivalent (s/m<sup>3</sup>)</b>	Not Available	<b>Enclosed Space Ignition Deflagration Density (g/m<sup>3</sup>)</b>	Not Available

## SECTION 10 Stability and reactivity

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 Toxicological information

### Information on toxicological effects

<b>a) Acute Toxicity</b>	There is sufficient evidence to classify this material as acutely toxic.
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## 081 FILTRITE SANIT-EEZY SPA SANITISER

<b>b) Skin Irritation/Corrosion</b>	Based on available data, the classification criteria are not met.
<b>c) Serious Eye Damage/Irritation</b>	There is sufficient evidence to classify this material as eye damaging or irritating
<b>d) Respiratory or Skin sensitisation</b>	There is sufficient evidence to classify this material as sensitising to skin or the respiratory system
<b>e) Mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>f) Carcinogenicity</b>	There is sufficient evidence to classify this material as carcinogenic
<b>g) Reproductivity</b>	Based on available data, the classification criteria are not met.
<b>h) STOT - Single Exposure</b>	Based on available data, the classification criteria are not met.
<b>i) STOT - Repeated Exposure</b>	There is sufficient evidence to classify this material as toxic to specific organs through repeated exposure
<b>j) Aspiration Hazard</b>	Based on available data, the classification criteria are not met.

<b>Inhaled</b>	The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.
<b>Ingestion</b>	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Biguanides, drugs used in treating type II diabetes mellitus, have been associated with the metabolic condition lactic acidosis which is highly dangerous and often fatal especially if taken with alcohol. Overexposure may cause fixed dilated pupils and lack of eye reflexes, nausea, vomiting, diarrhoea, loss of appetite and weight, abdominal discomfort, blood in vomit, agitation, confusion, lethargy, spasticity, and coma.
<b>Skin Contact</b>	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	This material can cause eye irritation and damage in some persons.
<b>Chronic</b>	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

<b>081 FILTRITE SANIT-EEZY SPA SANITISER</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>poly(hexamethylenebiguanide hydrochloride)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup>	Not Available

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

<b>POLY(HEXAMETHYLENEBIGUANIDE HYDROCHLORIDE)</b>	as 20% aqueous solution The Korea Centers for Disease Control and Prevention (KCDC) reported on August 31, 2011 that the unidentified fatal lung disease found in Korea might have been caused by chemical disinfectants used with household humidifiers. In Korea, humidifier disinfectants have been put in the water tanks of humidifiers for the prevention of germs, mold, and/or algae. According to the authorities, as of August 31, 2011, 28 adults, including 13 pregnant women, have been hospitalized because of this unidentified lung disease similar to acute interstitial pneumonia. Among them, four patients passed away because of the rapid development of pulmonary fibrosis after long exposure to the disinfectants over several months. However, this only accounts for adult patients hospitalized in a few hospitals and the exact number of patients including children and other victims is under investigation by the KCDC. Toxicology studies on rats revealed that the histopathological readings of products with polyhexamethyleneguanidine. (PHMG) and oligo(2-(2-ethoxy)ethoxyethyl guanidinium chloride (PGH) were identical to those of the human victims A provisional conclusion by an epidemiological investigation that active ingredients of disinfecting products caused this disease was reinforced by a subsequent inhalation toxicological study using rats. In Korea, humidifier disinfectants were introduced as industrial products, the proclaimed use of which made them exempt from the submission of inhalation toxicity data. However, patients must have inhaled small particulates of antibiotics that formed after the evaporation of the water droplets generated by humidifier. The European Union technical guidance document on risk assessment suggests that data on acute inhalation toxicity tests should be submitted for the risk assessment of a chemical if vapour pressure is higher than 10 <sup>-2</sup> Pa, mass median aerodynamic diameter is shorter than 50 µm, or inhalation is a relevant exposure route. Even though the Korean law for hazardous chemicals management requires acute inhalation toxicity tests when inhalation is a relevant route of exposure, the disinfectants were manufactured and sold on the market without any data on inhalation toxicity being submitted and without risk evaluation on an industrial or government level. This might have been because the use of the active ingredients was not clearly defined at the moment of registration, and consequently, the inhalatory aspect was excluded at the risk evaluation step. A few studies have reported the inhalation toxicity of the humidifier disinfectants. According to the EU
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## 081 FILTRITE SANIT-EEZY SPA SANITISER

CLH report on polyhexamethylene biguanide (CAS RN: 32289-58-0), in tests using rats, the subacute inhalation no-observed effect concentration (NOEC) was 0.24 ug/l. In models calculating the expected concentrations of the guanidines in a bedroom, using them as humidifier sterilisers, a worst-case scenario, was estimated. In the evaluation, it was assumed that consumers used 4 L of water per day containing the designated amount of humidifier disinfectant in a 50 m<sup>3</sup> bedroom. The air change rate in an energy-efficient bedroom in the winter season was assumed as low as 0.2 h<sup>-1</sup>. The calculated exposure concentrations of humidifier disinfectants were 0.10 ug/l for PHMG (CAS RN: 89697-78-9; subchronic inhalation NOEC 0.024 ug/l) and 0.42 ug/l for PGH (CAS RN: 374572-91-5; subchronic inhalation NOEC 0.0.024 ug/l). The risk quotients were 2.5 × 10<sup>3</sup>, and 1.05 × 10<sup>4</sup> for PHMG, and PGH, respectively. With these high values of the risk quotients for PHMG and PGH containing the guanidine moiety, it should have been possible to screen the chemicals with potential health concerns before their introduction to the market. In 2011, dozens of children and pregnant women in Korea died by exposure to sterilizer for household humidifier, such as Oxy and Cefu. An investigation of the putative toxicity of the sterilizer in the cardiovascular system was conducted. The sterilizers, polyhexamethylene guanidine phosphate (PHMG, Cefu), and oligo-[2-(2-ethoxy)-ethoxyethyl]-guanidinium-chloride (PGH, Oxy) were added to human lipoproteins, macrophages, and dermal fibroblast cells. The PGH and PHMG at normal dosages caused severe atherogenic process in human macrophages, cytotoxic effect, and aging in human dermal cell. Zebrafish embryos, which were exposed to the sterilizer, showed early death with acute inflammation and attenuated developmental speed. All zebrafish exposed to the working concentration of PHMG (final 0.3 %) and PGH (final 10 mM) died within 70 min and displayed acute increases in serum triacylglycerol level and fatty liver induction. The dead zebrafish showed severe accumulation of fibrous collagen in the bulbous artery of the heart with elevation of reactive oxygen species. In conclusion, the sterilizers showed acute toxic effect in blood circulation system, causing by severe inflammation, atherogenesis, and aging, with embryo toxicity. School of Biotechnology, Yeungnam University, Gyeongsan 712-749, Republic of Korea.

The following information refers to contact allergens as a group and may not be specific to this product.

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

In light of potential adverse effects, and to ensure a harmonised risk assessment and management, the EU regulatory framework for biocides has been established with the objective of ensuring a high level of protection of human and animal health and the environment. To this aim, it is required that risk assessment of biocidal products is carried out before they can be placed on the market. A central element in the risk assessment of the biocidal products are the utilization instructions that defines the dosage, application method and amount of applications and thus the exposure of humans and the environment to the biocidal substance.

Humans may be exposed to biocidal products in different ways in both occupational and domestic settings. Many biocidal products are intended for industrial sectors or professional uses only, whereas other biocidal products are commonly available for private use by non-professional users. In addition, potential exposure of non-users of biocidal products (i.e. the general public) may occur indirectly via the environment, for example through drinking water, the food chain, as well as through atmospheric and residential exposure. Particular attention should be paid to the exposure of vulnerable sub-populations, such as the elderly, pregnant women, and children. Also pets and other domestic animals can be exposed indirectly following the application of biocidal products. Furthermore, exposure to biocides may vary in terms of route (inhalation, dermal contact, and ingestion) and pathway (food, drinking water, residential, occupational) of exposure, level, frequency and duration.

For poly(hexamethylene biguanide)(syn: PHMB, polyaminopropyl biguanide):

**Acute toxicity:**

Oral (rat) LD50: Believed to be ~1,000 mg/kg

Dermal (rabbit) LD50: Believed to be > 2,000 mg/kg

May cause skin, eye and mucous membrane irritation (includes upper respiratory tract). May cause lethargy and diarrhoea from ingestion.

PHMB is not readily bioavailable if ingested and is not well absorbed through skin.

**Repeat dose toxicity:**

The substance has been extensively studied for its toxicity to mammalian systems. Repeated inhalation exposure in rats over a period of 4 weeks resulted in eye and respiratory irritation and pneumonitis. Long term feeding studies in dogs show that the liver and kidney are target organs and the effect occur only at very high doses.

Repeated or prolonged skin contact may cause some individuals to develop skin rash and other skin complications due to allergic skin sensitization. PHMB when tested at 1.0% in the HRIPT, PHMB did not produce irritation or allergic skin reactions.

Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.

**Reproductive and developmental toxicity:**

Not known or reported to cause reproductive or developmental toxicity.

**Mutagenicity:**

Not known or reported to be mutagenic

The Korea Centers for Disease Control and Prevention (KCDC) reported on August 31, 2011 that the unidentified fatal lung disease found in Korea might have been caused by chemical disinfectants used with household humidifiers. In Korea, humidifier disinfectants have been put in the water tanks of humidifiers for the prevention of germs, mold, and/or algae. According to the authorities, as of August 31, 2011, 28 adults, including 13 pregnant women, have been hospitalized because of this unidentified lung disease similar to acute interstitial pneumonia. Among them, four patients passed away because of the rapid development of pulmonary fibrosis after long exposure to the disinfectants over several months. However, this only accounts for adult patients hospitalized in a few hospitals and the exact number of patients including children and other victims is under investigation by the KCDC.

Toxicology studies on rats revealed that the histopathological readings of products with polyhexamethyleneguanidine. (PHMG) and oligo(2-(2-ethoxy)ethoxyethyl guanidinium chloride (PGH) were identical to those of the human victims

## 081 FILTRITE SANIT-EEZY SPA SANITISER

A provisional conclusion by an epidemiological investigation that active ingredients of disinfecting products caused this disease was reinforced by a subsequent inhalation toxicological study using rats. In Korea, humidifier disinfectants were introduced as industrial products, the proclaimed use of which made them exempt from the submission of inhalation toxicity data. However, patients must have inhaled small particulates of antibiotics that formed after the evaporation of the water droplets generated by humidifier.

The European Union technical guidance document on risk assessment suggests that data on acute inhalation toxicity tests should be submitted for the risk assessment of a chemical if vapour pressure is higher than 10–2 Pa, mass median aerodynamic diameter is shorter than 50 µm, or inhalation is a relevant exposure route. Even though the Korean law for hazardous chemicals management requires acute inhalation toxicity tests when inhalation is a relevant route of exposure, the disinfectants were manufactured and sold on the market without any data on inhalation toxicity being submitted and without risk evaluation on an industrial or government level. This might have been because the use of the active ingredients was not clearly defined at the moment of registration, and consequently, the inhalatory aspect was excluded at the risk evaluation step.

A few studies have reported the inhalation toxicity of the humidifier disinfectants. According to the EU CLH report on polyhexamethylene biguanide (CAS RN: 32289-58-0), in tests using rats, the subacute inhalation no-observed effect concentration (NOEC) was 0.24 µg/l.

In models calculating the the expected concentrations of the guanidines in a bedroom, using them as humidifier sterilisers, a worst-case scenario. was estimated In the evaluation, it was assumed that consumers used 4 L of water per day containing the designated amount of humidifier disinfectant in a 50 m<sup>3</sup> bedroom. The air change rate in an energy-efficient bedroom in the winter season was assumed as low as 0.2 h<sup>-1</sup>. The calculated exposure concentrations of humidifier disinfectants were 0.10 µg/l for PHMG (CAS RN: 89697-78-9; subchronic inhalation NOEC 0.024 µg/l) and 0.42 µg/l for PGH (CAS RN: 374572-91-5; subchronic inhalation NOEC 0.0024 µg/l). The risk quotients were 2.5 × 10<sup>3</sup>, and 1.05 × 10<sup>4</sup> for PHMG, and PGH, respectively. With these high values of the risk quotients for PHMG and PGH containing the guanidine moiety, it should have been possible to screen the chemicals with potential health concerns before their introduction to the market

In 2011, dozens of children and pregnant women in Korea died by exposure to sterilizer for household humidifier, such as Oxy and Cefu.. An investigation of the putative toxicity of the sterilizer in the cardiovascular system was conducted. The sterilizers, polyhexamethylene guanidine phosphate (PHMG, Cef)u, and oligo-[2-(2-ethoxy)-ethoxyethyl]-guanidinium-chloride (PGH, Oxy) were added to human lipoproteins, macrophages, and dermal fibroblast cells. The PGH and PHMG at normal dosages caused severe atherogenic process in human macrophages, cytotoxic effect, and aging in human dermal cell.

Zebrafish embryos, which were exposed to the sterilizer, showed early death with acute inflammation and attenuated developmental speed. All zebrafish exposed to the working concentration of PHMG (final 0.3 %) and PGH (final 10 mM) died within 70 min and displayed acute increases in serum triacylglycerol level and fatty liver induction. The dead zebrafish showed severe accumulation of fibrous collagen in the bulbous artery of the heart with elevation of reactive oxygen species. In conclusion, the sterilizers showed acute toxic effect in blood circulation system, causing by severe inflammation, atherogenesis, and aging, with embryo toxicity

School of Biotechnology, Yeungnam University, Gyeongsan 712-749, Republic of Korea.

As cationic polymers possess unique physical structures and surface properties, various kinds of cationic polymers have been developed over the past few decades for a wide spectrum of nanomedical applications in the central nervous system (CNS). Although cationic polymers could be successfully used for gene transfer, drug delivery, and diagnostic imaging, after entering into the CNS, they may cause neurotoxicity and induce CNS damage, which seriously limits their applications. The neurotoxic effects of cationic polymers on CNS are mostly studied in mice, and have not been examined in detail.

While evaluating the neurotoxicity of cationic polymers, the surface charge, surface area, coating, size, shape, and the basic materials that cationic polymers are made up of are expected to show important roles, and should be carefully considered. Apoptosis, necrosis, autophagy, oxidative stress, inflammation, and inflammasome; which are expected to be the most important problems in the evaluation of cationic polymers-induced neurotoxicity.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Acute Toxicity	✓	Carcinogenicity	✓
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✓
Mutagenicity	✗	Aspiration Hazard	✗

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

081 FILTRITE SANIT-EEZY SPA SANITISER	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

## 081 FILTRITE SANIT-EEZY SPA SANITISER

poly(hexamethylenebiguanide hydrochloride)	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	0.12-0.3mg/L	4
	EC50(ECx)	48h	Crustacea	0.12-0.3mg/L	4
	LC50	96h	Fish	0.017-0.033mg/L	4

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

## Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

## Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients



## SECTION 13 Disposal considerations

## Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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## SECTION 14 Transport information

## Labels Required

	
Marine Pollutant	
HAZCHEM	•3Z

## Land transport (ADG)

14.1. UN number or ID number	3082				
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains poly(hexamethylenebiguanide hydrochloride))				
14.3. Transport hazard class(es)	<table border="1"> <tr> <td>Class</td> <td>9</td> </tr> <tr> <td>Subsidiary Hazard</td> <td>Not Applicable</td> </tr> </table>	Class	9	Subsidiary Hazard	Not Applicable
Class	9				
Subsidiary Hazard	Not Applicable				

Continued...

14.4. Packing group	III	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Special provisions	274 331 335 375 AU01
	Limited quantity	5 L

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

#### Air transport (ICAO-IATA / DGR)

14.1. UN number	3082	
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains poly(hexamethylenebiguanide hydrochloride))	
14.3. Transport hazard class(es)	ICAO/IATA Class	9
	ICAO / IATA Subsidiary Hazard	Not Applicable
	ERG Code	9L
14.4. Packing group	III	
14.5. Environmental hazard	Environmentally hazardous	
14.6. Special precautions for user	Special provisions	A97 A158 A197 A215
	Cargo Only Packing Instructions	964
	Cargo Only Maximum Qty / Pack	450 L
	Passenger and Cargo Packing Instructions	964
	Passenger and Cargo Maximum Qty / Pack	450 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y964
	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

#### Sea transport (IMDG-Code / GGVSee)

14.1. UN number	3082	
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains poly(hexamethylenebiguanide hydrochloride))	
14.3. Transport hazard class(es)	IMDG Class	9
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	III	
14.5. Environmental hazard	Marine Pollutant	
14.6. Special precautions for user	EMS Number	F-A , S-F
	Special provisions	274 335 969
	Limited Quantities	5 L

#### 14.7. Maritime transport in bulk according to IMO instruments

##### 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

##### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
poly(hexamethylenebiguanide hydrochloride)	Not Available

##### 14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
poly(hexamethylenebiguanide hydrochloride)	Not Available

## SECTION 15 Regulatory information

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

poly(hexamethylenebiguanide hydrochloride) is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

### Additional Regulatory Information

Not Applicable

### National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (poly(hexamethylenebiguanide hydrochloride))
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (poly(hexamethylenebiguanide hydrochloride))
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
<b>Legend:</b>	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

## SECTION 16 Other information

<b>Revision Date</b>	29/09/2023
<b>Initial Date</b>	29/09/2023

### Other information

#### Ingredients with multiple cas numbers

Name	CAS No
poly(hexamethylenebiguanide hydrochloride)	32289-58-0, 27083-27-8, 70170-61-5, 133029-32-0, 28757-47-3, 91403-50-8, 50641-36-6, 1802181-67-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists

Continued...

## 081 FILTRITE SANIT-EEZY SPA SANITISER

- ▶ STEL: Short Term Exposure Limit
  - ▶ TEEL: Temporary Emergency Exposure Limit,
  - ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
  - ▶ ES: Exposure Standard
  - ▶ OSF: Odour Safety Factor
  - ▶ NOAEL: No Observed Adverse Effect Level
  - ▶ LOAEL: Lowest Observed Adverse Effect Level
  - ▶ TLV: Threshold Limit Value
  - ▶ LOD: Limit Of Detection
  - ▶ OTV: Odour Threshold Value
  - ▶ BCF: BioConcentration Factors
  - ▶ BEI: Biological Exposure Index
  - ▶ DNEL: Derived No-Effect Level
  - ▶ PNEC: Predicted no-effect concentration
  - ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
  - ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
  - ▶ IGC: International Gas Carrier Code
  - ▶ IBC: International Bulk Chemical Code
- 
- ▶ AIIC: Australian Inventory of Industrial Chemicals
  - ▶ DSL: Domestic Substances List
  - ▶ NDSL: Non-Domestic Substances List
  - ▶ IECSC: Inventory of Existing Chemical Substance in China
  - ▶ EINECS: European INventory of Existing Commercial chemical Substances
  - ▶ ELINCS: European List of Notified Chemical Substances
  - ▶ NLP: No-Longer Polymers
  - ▶ ENCS: Existing and New Chemical Substances Inventory
  - ▶ KECI: Korea Existing Chemicals Inventory
  - ▶ NZIoC: New Zealand Inventory of Chemicals
  - ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
  - ▶ TSCA: Toxic Substances Control Act
  - ▶ TCSI: Taiwan Chemical Substance Inventory
  - ▶ INSQ: Inventario Nacional de Sustancias Químicas
  - ▶ NCI: National Chemical Inventory
  - ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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