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# Safety Data Sheet HY-CLOR GRANULAR SPA BROMINE

Date Reviewed: 25 January 2024 Replaces: 20 January 2023

This SDS has been amended to comply with EPA NZ SDS Notice 2017 (as amended) Section Part B Clause 9.

# 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Chemical Name: Synonyms:	<b>HY-CLOR GRANULAR SPA BROMINE</b> Sodium Dichlorisocyanurate dehydrate and Sodium Bromide
Product Code: Recommended Use of the Chemical and Restrictions on Use:	HYCSPAG01 Spa Pool disinfectant and sanitiser
Supplier: Street Address:	HY-CLOR AUSTRALIA PTY LTD Suite A, Floor 8 Harbourview Building, 152, Quay Street, Auckland Central, Auckland 1010, NZ
Telephone Number: After Hours Contact: Email Contact: Emergency Telephone:	+6499732477 8.30 – 4.30 pm Monday to Friday +61404 859 515 (Aus) help@hyclor.com.au 0800764766 New Zealand National Poisons Centre:(24 hours) 111 (Transport, fire, ambulance only))

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information"

#### 2. HAZARDS IDENTIFICATION

This product is classified as a hazardous substance according to its GHS classification. It is an Environmentally hazardous Dangerous Good according to ADG 7.8.

#### Poisons Schedule: S6. SIGNAL WORD: WARNING

#### GHS Category and Hazard Statement(s)

Acute toxicity – category 4	H302	Harmful if swallowed
Acute toxicity – category 4	H332	Harmful if inhaled
Skin corrosion irritation – category 2	H315	Causes skin irritation
Eye damage/irritation – category 1	H318	Causes serious eye damage
Specific target organ toxicity (single exposure) – category 3	H335	May cause respiratory irritation
Specific target organ toxicity (single exposure) – category 3	H336	May cause drowsiness or dizziness
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity repeated exposure) – category 2	H373	May cause damage to organs through prolonged or repeated exposure

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Hazardous to the aquatic environment (acute) – category 1	H400	Very Toxic to aquatic life
Hazardous to the aquatic	H410	Very Toxic to aquatic life with long lasting effects
environment (chronic) – category 1		
Australian Human Health Hazard	AUH031	Contact with acid liberates toxic gas

## Precautionary statements

Prevention:

**P202:** Do not handle until all safety precautions have been read and understood **P260:** Do not breathing fumes, mist or dust

P264: Wash contacted areas thoroughly after handling

**P270:** Do not eat, drink or smoke when using this product.

**P271:** Use only outdoors or in a well-ventilated area

P273: Avoid release to the environment. - if this is not the intended use

P280: Wear eye protection and protective gloves

## **Response:**

P312: Call a POISON CENTER or doctor if you feel unwell.

P330: Rinse mouth

P391: Collect Spillage

P301+P312: IF SWALLOWED: call a Poison Centre or doctor if felling unwell

P301+P330+P331: IF SWALLOWED: rinse mouth, Do NOT induce vomiting

P302+P352: IF ON SKIN: Wash with plenty of soap and water

**P304+P340:** IF INHALED: Remove person to fresh air and keep comfortable for breathing **P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention

#### Storage:

**P403+P233:** Store in a well-ventilated place. Keep container tightly closed. **P405:** Store locked up.

Disposal:

**P501:** Dispose of contents/container in accordance with local & regional waste disposal legislation



**GHS Hazard pictograms** 

GHS Signal word

DANGER

Label Statements:	KEEP OUT OF REACH OF CHILDREN FIRE AND EXPLOSION HAZARD
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING

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### **3. COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredient	CAS Number	Concentration (% w/w)
Sodium Dichloroisocyanurate Dihydrate	51580-86-0	>50%
Sodium Bromide	7647-15-6	<10%

#### **4. FIRST AID MEASURES**

If poisoning occurs, or medical advice needed contact a Poisons Information Centre. Phone **0800764766** or a doctor. Have this SDS when you call.

Swallowed:	Do not induce vomiting. Rinse mouth with water (never give anything by mouth to an unconscious person). Seek immediate medical advice.
Skin: Eye:	Should be treated immediately by rinsing the affected parts in cold running water for at least 15 minutes, followed by thorough washing with soap and water. If necessary, the person should shower and change contaminated clothing and shoes, and then must seek medical attention. If in eyes, remove contact lenses if present, hold eyes open, flood with water or normal saline solution for several minutes. Take care not to rinse contaminated water into the non-affected eye or onto the face. If irritation occurs seek immediate medical attention.
Inhaled:	Supply fresh air. If required provide artificial respiration
Note to Physician	Treat symptomatically
First Aid Facilities Medical Conditions that may be aggravated by exposure	Eye wash and normal washroom facilities. First Aid Kit. Asthma and respiratory disease.

#### **5. FIRE FIGHTING MEASURES**

Fire & Explosion Hazards:	The major hazard in fires is usually inhalation of heated and toxic or deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media:	Not combustible. Use extinguishing media suited to burning Materials. Use water in large amounts. DO NOT use carbon dioxide, powder. In case of fire: keep drums, etc., cool by spraying with water. NO direct contact with water.

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Fire Fighting:	When fighting fires involving significant quantities of this product, wear a fully encapsulated splash suit complete with self-contained breathing apparatus.
Flash Point:	Does not burn
Autoignition Temperature:	Not applicable – does not burn
Flammability Class:	Does not burn
Hazchem:	2Z

#### 6. ACCIDENTAL RELEASE MEASURES

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, sweep up spilled material wrap in paper and put in garbage bin. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, Contact the supplier and prevent spillage from entering drains or water courses.

#### 7. HANDLING AND STORAGE

Keep out of the reach of children.

Precautions for safe handling	Avoid skin and eye contact and breathing in dust. Wear appropriate protective equipment and clothing. Remove contaminated clothing. Use in a well-ventilated area. Avoid spillage onto floor. Maintain personal hygiene by washing hands prior to eating, drinking, smoking or using toilet.
Safe storage, including any incompatibilities	Store in a cool, dry well-ventilated area, out of direct sunlight. Store in labelled, original containers. Keep containers tightly closed and upright. Avoid spillage onto the floor. Do not allow into contact with water. Store away from sources of ignition, heat and incompatible materials described in Section 10.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational Exposure Limits:** Exposure limits for this product have not been established by SWA for the product ingredients. No special equipment is usually needed when occasionally handling small quantities.

#### Appropriate Engineering Controls:

Engineering controls and appropriate working operations should be given priority over the use of personal protective equipment. Avoid generating and inhaling dusts. Use in a well-ventilated area

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only. Keep containers in a well-ventilated area. Local exhaust ventilations system may be required, especially if chlorine gas evolved.

#### Personal Protective equipment - for manufacturing and bulk handling situations:

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Skin Protection:	Suitable protective clothing should be worn e.g. cotton overalls and safety shoes. Wear gloves of impervious material such as nitrile rubber (glove thickness 0.11 mm & breakthrough time > 480 min) that comply with AS/NZS 2126. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.
Eye Protection:	Tightly fitting safety goggles or full-faced shields as appropriate recommended and that comply with AS/NZS 1336 and 1337. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken.
Respiratory Protection:	Respiratory protection is not normally necessary, unless the production of dust is significant or toxic gases are evolved. In such cases, a suitable respirator may be worn that meets the requirements of AS/NZS 1715 and 1716.
Personal Hygiene:	Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White to cream, dry free flowing powder. Chlorine odour.

Physical Description & colour:	White granules.	
Odour:	No odour.	
Boiling Point:	Not applicable t.	
Freezing/Melting Point:	Sodium bromide: 755°C. Sodium Dichloroisocyanurate Dihydrate: 240-250°C	
Flammability:	Not flammable.	
Upper/lower flammability or explosive limits: No data available		
Volatiles:	Not applicable.	

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Vapour Pressure:	Sodium bromide: 1 hPa at 806 °C . Sodium Dichloroisocyanurate Dihydrate: < 0.006 hPa at 20 °C - (anhydrous substance).
Flash point:	Not applicable.
Autoignition temperature:	No data available.
Decomposition Temperature: Dihydrate:	Sodium bromide: > 750 °C Sodium Dichloroisocyanurate
Vapour Density:	Not applicable t.
Specific Gravity:	Not applicable t.
Bulk Density:	Sodium bromide: 3.2 g/cm3 at 25 °C. Sodium Dichloroisocyanurate Dihydrate: 1.97 g/cm3 at 25 °C - (anhydrous substance)
Water Solubility:	Sodium bromide: 946 g/l at 25 °C. Sodium Dichloroisocyanurate Dihydrate: 236.8 g/l at 25 °C
pH:	Sodium bromide: 5.74 at 430 g/l at 22.5 °C . Sodium Dichloroisocyanurate Dihydrate: 6 at 10 g/l at 20 °C
Explosive properties:	Sodium bromide: No data available. Sodium Dichloroisocyanurate
Oxidizing properties:	Dihydrate: Risk of explosion if heated under confinement. Sodium bromide and Sodium Dichloroisocyanurate Dihydrate: None.
Coeff Oil/water Distribution:	Not applicable for inorganic substances

## **10. STABILITY AND REACTIVITY**

Chemical Stability:	Exposure to high temperatures or contact with acids may liberate chlorine gas which is toxic.
Possibility of hazardous reactions:	This product will not undergo polymerisation reactions. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen.
Conditions to avoid:	This product should be kept in a cool place, preferably below 30 Deg C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from heat, flames and sparks. Keep isolated from combustible materials
Incompatible materials:	Acids, water, zinc, tin, aluminum and their alloys, organic chemicals, alkaloidal salts, mercuric chloride, zinc sulfate,

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and other metallic salts nitrogen containing compounds, oxidisers, dry fire extinguishers containing monoammonium phosphates.

#### **11. TOXICOLOGICAL INFORMATION**

Acute toxicity	Sodium Bromine: Rat Oral LD <sub>50</sub> 3,500 mg/kg. Rat subcutaneous LD <sub>50</sub> 2,900 mg/kg. Mouse intraperitoneal LD <sub>50</sub> 5000 mg/kg. Sodium Dichloroisocyanurate Dihydrate: LD <sub>50</sub> Oral - Rat - male and female - 1,823 mg/kgLD <sub>50</sub> Dermal - Rat - male and female - > 5,000 mg/kg
Skin corrosion/irritation	Sodium Bromide: non-irritating
	Sodium Dichloroisocyanurate Dihydrate: Rabbit - causes severe burns 24 h
Eye damage/eye irritation	Sodium Bromide: A positive response was elicited in 3/6 rabbits. Conjunctival irritation only was observed. All eyes were normal two or three days after instillation of the test material.
	Sodium Dichloroisocyanurate Dihydrate: Bovine cornea- causes serious eye damage.
Inhalation	Sodium Bromide: No data available.
	Sodium Dichloroisocyanurate Dihydrate: . $LC_{50}$ Inhalation - Rat - male and female - 4 h - 0.27 - 1.17 mg/l - dust/mist. Irritating to respiratory system.
Skin sensitization	Sodium Bromide: Guinea pig result: negative.
	Sodium Dichloroisocyanurate Dihydrate: Guinea pig result: negative.
Mutagenicity	Sodium Bromide: Ames test negative. Chromosome aberration negative. Unscheduled DNA synthesis negative. Bone marrow negative.
	Sodium Dichloroisocyanurate Dihydrate: Ames test negative. Sister chromatid exchange assay negative. In vitro mammalian cell gene mutation test negative. Chromosome aberration negative.
Carcinogenicity	Sodium Bromide: No data available.
	Sodium Dichloroisocyanurate Dihydrate: Animal testing did not show any carcinogenic effects
Reproductive toxicity	Sodium Bromide: Suspected of damaging fertility or the unborn child.
	Sodium Dichloroisocyanurate Dihydrate: No data available

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Specific target organ toxicity - single exposure	Sodium Bromide: May cause drowsiness or dizziness. Sodium Dichloroisocyanurate Dihydrate: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Sodium Bromide: May cause damage to organs through prolonged or repeated exposure.
	- Central nervous system
	Sodium Dichloroisocyanurate Dihydrate: No data available
A ensire tiers becaud	Sodium Bromide: No data available
Aspiration hazard	Sodium Dichloroisocyanurate Dihydrate: No data available

## **12. ECOLOGICAL INFORMATION**

#### Sodium Bromide

- Fish: semi-static test LC+ Fish > 440 mg/l 96 h. semi-static test NOEC *Poecilia* reticulata (guppy) - 10 mg/l - 124 d
- **Daphnia:** static test NOEC *Daphnia magna* (Water flea) > = 1,000 mg/l 48 h. semistatic test NOEC - *Daphnia magna* (Water flea) - 7.5 mg/l – 21 h
- Algae: ErC<sub>50</sub> Skeletonema costatum (marine diatom) > 440 mg/l 72 h

**Bacteria:** static test EC<sub>50</sub> - activated sludge - > 1,000 mg/l - 3 h

**Persistence and degradability**: The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation: - 7 d at 25 °C - 53.11 mg/l(sodium bromide) Bioconcentration factor (BCF): 0.23

Mobility in Soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Endocrine disrupting properties: No data available

#### Sodium Dichloroisocyanurate Dihydrate

Fish:  $LC_{50} - 0.22 - 0.28 \text{ mg/L}$ 

Daphnia:  $LC_{50} - 0.2 \text{ mg/L}$ 

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Persistence and degradability: The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation: - No data available

Mobility in Soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Endocrine disrupting properties: No data available

#### 13. DISPOSAL CONSIDERATIONS

**Disposal:** Rinse empty containers in the pool and dispose of by putting in garbage. For larger quantities, refer to Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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## 14. TRANSPORT INFORMATION

This product is an Environmentally Hazardous Substance, Solid meeting the description of UN 3077 and is not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported in not exceeding 500 kg. (ADG 7.8 SP AU01).

	Land Transport	Sea Transport	Air Transport
	(ADG 7.8)	(IMDG)	(ICAO/IATA)
UN Number	3077	3077	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport Hazard Class	Class 9	Class 9	Class 9
Packaging Group			111
Marine Pollutant		Yes	Yes
Special Provisions*	274, 331, 335, 375, AU01		

'\* See ADG 7.5 for details

Hazchem Code: 2Z HIN: 50

## **15. REGULATORY INFORMATION**

Poisons Standard (Scheduling):	Schedule 6 (Chlorinating Compounds)
APVMA Product Number:	Not currently registered
Listing in the Australian Inventory of Chemical Substances (AICS)	Not applicable for APVMA registered products
HSNO Approval Number	Water-Treatment-Chemicals-Subsidiary-Hazard-Group- Standard-2020-HSR002684
Listed in NZIoC	Sodium Dichlorisocyanurate dehydrate and Sodium Bromide may be used under an appropriate Group Standard

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ary:		
ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail Edition 7.8, 2023	
AS/NZS	Australian Standard/New Zealand Standard	
CAS Number:	Unique Chemical Abstracts Service Registry Number	
GHS:	Globally Harmonized System of classification and labelling of chemicals (GHS)	
Hazchem Code:	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters	
HCIS:	Hazardous Chemical Information System ( <u>http://hcis.safeworkaustralia.gov.au/HazardousChemical</u> )	
IARC:	International Agency for Research on Cancer	
LD <sub>50</sub> :	Lethal Dose 50% – dose which is fatal to 50% of a test population	
IDLH:	(usually rats). Immediately dangerous to life or health (IDLH) is defined by the U National Institute for Occupational Safety and Health (NIOSH)	
LC <sub>50</sub> :	Lethal Concentration 50% – concentration in air which is fatal to 50 of a test population.	
NTP:	National Toxicology Program (USA)	
Peak Limitation:	A maximum or peak airborne concentration of a particular substand determined over the shortest	
	analytically practicable period of time which does not exceed 15 minutes.	
SDS:	Safety Data Sheet	
STEL:	Short term exposure limit (STEL) means the time-weighted average maximum airborne concentration of a substance calculated over a 15-minute period.	
TWA:	8-hour Time-weighted average (TWA) means the maximum average airborne concentration of a substance when calculated over an eig hour working day, for a five-day working week.	
WES:	Workplace exposure standard	
UN Number:	United Nations Dangerous Goods Number	

## **References:**

**16. OTHER INFORMATION** 

Work Safe Australia Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023). Hazardous Substances SDS Notice 2017 as consolidated Sept 2022. EPA NZ Inventory of Industrial Chemicals. The exposure standards comply with the New Zealand and Australian Workplace Exposure Standards for Airborne Contaminants. The Dangerous Goods Classification complies with the Australian Code for the Transport of Dangerous Goods by Road & Rail Edition 7.8, 2023. Other

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information from ChemIDPlus and linked databases. European Chemicals Agency Classification and Labelling database. SDS for active constituents.

#### Sections Revised: All Replaces revision: 20 January 2023 Disclaimer

This Safety Data Sheet (SDS) has been prepared in compliance with the Work Safe Australia Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023). The information in this SDS should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Hy-Clor Australia Pty. Limited shall not be held liable for any damage resulting from handling or from contact with the above product.

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