



# SAFETY DATA SHEET

**PRODUCT NAME:** POOL TREAT SPA TABS

Issue Date: 27 November 23

## SECTION 1. SUBSTANCE AND SUPPLIER DETAILS

**Product Name:** Pool Treat Spa Tabs  
**Other Names:** Bromine Tablets, 1-Bromo-3-Chloro-5, 5-Dimethylhydantoin,  
**Product Code:** PST1, PST2, PST20, ZBCDMH

**Uses:** As an aid in the control of bacterial, fungal and algae slimes in evaporation condensers, heat exchange water towers. Algaecide, fungicide, bactericide and/or slimicide for recirculating cooling water systems. Anti microbial for pulp and for manufacture of non-food grades of paper and paperboard.

**Supplier:** HamChem Hamilton Chemicals Ltd,  
75 Ruffell Rd, Hamilton  
Phone: 07 974 4971  
Web: [www.hamchem.nz](http://www.hamchem.nz)  
Email: [info@hamchem.nz](mailto:info@hamchem.nz)

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

## SECTION 2: HAZARD IDENTIFICATION

This product is classified as a Dangerous Good for Transport.

This product is classified as hazardous according to criteria in the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

Classified under the group standard "Oxidising Liquids and Solids (Corrosive) Group Standard 2020".

HSNO APPROVAL NUMBER: **HSR002632**

HSNO CLASSIFICATIONS: 5.1.1B – Oxidising solid  
6.1D – Acutely toxic, oral  
6.5B – Skin sensitiser  
8.2B – Corrosive to skin  
8.3A – Corrosive to eyes  
9.1A – Very toxic to aquatic life, acute

GHS Classification: Oxidising solid – Category 2  
Acute toxicity, oral – Category 4  
Skin corrosion – Category 1B  
Serious eye damage - Category 1  
Skin sensitisation – Category 1  
Hazardous to the aquatic environment, acute – Category 1

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**Hazard Statements:**

H272 May intensify fire; oxidiser  
H302 Harmful if swallowed  
H314 Causes severe skin burns and eye damage  
H317 May cause an allergic skin reaction  
H400 Very toxic to aquatic life

**GHS Pictograms:****DANGER****PREVENTION STATEMENTS:**

P102 – Keep out of reach of children.  
P103 – Read carefully and follow all instructions.  
P210 – Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220 – Keep away from clothing and other combustible materials.  
P260 – Do not breathe dust.  
P264 – Wash hands, exposed skin thoroughly after handling.  
P270 – Do not eat, drink, or smoke, when using this product.  
P272 – Contaminated work clothing should not be allowed out of the workplace.  
P273 – Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.

**RESPONSE STATEMENTS:**

P101 – If medical advice is needed, have product container or label at hand.  
P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P363 – Wash contaminated clothing before re-use.  
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. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
P321 – Specific treatment (see first aid panel on this label).  
P370 + P378 - In case of fire: Use water spray or fog to extinguish.  
P391 – Collect spillage.

**STORAGE:**

P405 – Store locked up.

**DISPOSAL:**

P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Dispose of via an approved waste disposal contractor. Refer to Section 13 of the SDS.

**Other Information:** This product is a hard tablet with no free powder or dust during normal conditions of storage, transport, and use.

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### SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

Substance: BCDMH tablets.

Main Component	CAS Number	Concentration (%wt)
1-Bromo-3-Chloro-5,5-Dimethylhydantoin	16079-88-2	> 98%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### SECTION 4: FIRST AID MEASURES

***If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON)***

**If swallowed:** Rinse mouth with water. Give water to drink provided victim is conscious. Do NOT induce vomiting. Immediately call a POISON CENTRE/Doctor for advice.

**If on skin:** Remove contaminated clothing. Wash affected area with plenty of soap and water for 15 minutes. Wash clothing before reuse. Seek medical attention immediately.

**If inhaled:** Not an expected route of exposure as product is a hard tablet. Remove victim to fresh air and keep at rest, in a position comfortable for breathing. Immediately call a POISON CENTRE/Doctor for advice. Apply resuscitation if victim is not breathing – do not use direct mouth-to-mouth method if victim has ingested or inhaled the substance, use an alternative method or a proper respiratory device.

**If in eyes:** Immediately flush eyes with plenty of water for 15 minutes holding eyelids open. Remove contact lenses if present and easy to do so. Seek immediate medical attention. Continue flushing until advised to stop by POISON CENTRE or Doctor.

**Note to Physician:** Treat symptomatically based on individual reactions of patient and judgement of doctor. The product is corrosive to skin and eyes. Ophthalmological opinion should be sought for burns to eyes.

### FIRE FIGHTING MEASURES

**Extinguishing media:** In case of fire, the ONLY appropriate extinguishing media is WATER.

**Specific hazards:** Product is a strong oxidizer. Avoid generating dust. Contamination with moisture, organic matter, or other chemicals may start a chemical reaction with generation of heat, hazardous gas, and possible fire/explosion. Incompatible with strong oxidants reducing agents, combustible materials, water, acids (minerals, non-oxidizing/oxidizing, and organic), and ignition sources. When involved in a fire, this product may generate hydrogen chloride, nitrogen oxides, carbon monoxide, hydrogen bromide, or bromine, carbon dioxide, nitrogen and irritating/toxic fumes and gases.

**Special protective precautions & equipment:** Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources.

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SECTION 6: ACCIDENTAL RELEASE MEASURES
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**Containment:** If greater than 100kg is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

**Emergency Procedures:** In the event of a spillage, alert the Fire Brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye, and respiratory exposure. Clear area of any unprotected/unnecessary personnel. Contain using sand, earth, or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. If this occurs, contact your Regional Council immediately.

**Clean-Up Method:** Use absorbent (soil, sand, or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred, advise local emergency services.

**Disposal Precautions:** Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work upwind or increase ventilation. Refer to Section 13 for disposal advice.

SECTION 7: HANDLING & STORAGE
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**Storage:** Avoid storage of harmful substances with food. Store out of reach of children. Store locked up. Store in a cool, ventilated place. Containers should be kept closed in order to minimise contamination. Keep from extreme heat, sunlight, and open flames. Avoid contact with incompatible substances as listed in Section 10 of this SDS. Location Compliance Certificates must be available if storing >250kg (closed), 50kg (open). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.

**Handling:** Read all instructions before use. Keep exposure to a minimum, and minimise quantities kept in work areas. See next section of this SDS regarding personal protective equipment requirements. Never add water directly onto the tablets. Do not ingest. Avoid contact with skin and eyes. Avoid inhaling dust. Avoid release to the environment. Do not eat, drink, or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION
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**Exposure standards:** No exposure standard has been established for this product, however, the exposure standard for Bromine (7726-95-6) TWA 0.1ppm or 0.66mg/m<sup>3</sup> and STEL 0.3ppm and 2mg/m<sup>3</sup> (WorkSafe NZ, Workplace Exposure Standards).

**Engineering controls:** In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts, or vapours are high, you are advised to modify processes or increase ventilation.

**Personal Protective Equipment:**

Eyes – Protect eyes with goggles, safety glasses or full-face mask. Avoid wearing contact lenses. Select eye protection in accordance with AS/NZS 1336 and 1337.

Skin – Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Protective gloves or suitably resistant material must comply with AS/NZS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS 3765.1 or AS 3765.2. PVC

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or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NZS 2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking, or smoking.

**Respiratory** – A respirator when airborne concentrations approach the WES. Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used, and maintained in accordance with AS/NZS 1715. Use a respirator with a particulate filter. If using a respirator, ensure the cartridges are correct for the potential air contamination and are in good working order. Fit testing, clear guidelines, training for use and maintenance of PPE is necessary.

**SECTION 9: PHYSICAL & CHEMICAL PROPERTIES**

<b>Description:</b>	Solid, hard tablet	<b>Colour:</b>	White to off-white
<b>Odour:</b>	Strong halogen odour or faint bromine odour.	<b>Odour Threshold:</b>	Not available
<b>pH (20°C):</b>	3.4 – 3.6 (1% solution)	<b>Solubility (water, 20°C):</b>	1.5 g/L
<b>Freezing/Melting point:</b>	Decomposes before melting at 145°C.	<b>Boiling Point:</b>	Not applicable
<b>Flammability:</b>	Non-flammable	<b>Flash Point:</b>	Not applicable
<b>UEL/LEL:</b>	Not applicable	<b>Vapour Pressure (20°C):</b>	Not available
<b>Decomposition Temp:</b>	145°C	<b>Autoignition Temp:</b>	Not applicable
<b>Specific Gravity/Density:</b>	0.96 g/cm <sup>3</sup>	<b>Vapour Density (20°C):</b>	Not available
<b>Partition Coefficient: n-octanol/water</b>	Not applicable	<b>Viscosity (kinematic):</b>	Not applicable
<b>Particle Characteristics:</b>	Not available		

**SECTION 10. STABILITY & REACTIVITY**

**Stability:** Product is stable under normal conditions of use, storage, and temperature.

**Hazardous decomposition products:** When involved in a fire, this product may generate hydrogen chloride, nitrogen oxides, carbon monoxide, hydrogen bromide or bromine, carbon dioxide, nitrogen, irritating and highly toxic fumes, and gases.

**Hazardous polymerization:** Hazardous Polymerization has not been reported.

**Incompatibles:** Incompatible with strong oxidants, reducing agents, flammable or combustible substances and materials, strong acids, strong bases, water, and ignition sources.

**Conditions to avoid:** Avoid excessive heat, sparks, flame, direct sunlight, static charges, generating dust, moisture, and high temperatures.

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute Exposure**

**Acute Toxicity:** Classified as acutely toxic, oral, category 4  
LD<sub>50</sub> oral 485 mg/kg.  
LD<sub>50</sub> dermal > 2,000 mg/kg  
LC<sub>50</sub> inhalation > 5 mg/L (dust)

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<b>Inhalation:</b>	Inhalation is not a typical route of exposure as there is no free dust/powder present. If dust/powder is generated, exposure may cause respiratory irritation with coughing, wheezing, and shortness of breath.
<b>Ingestion:</b>	Product is harmful if swallowed. May cause gastrointestinal irritation, nausea, and vomiting.
<b>Skin Corrosion/Irritation:</b>	Product is a skin corrosive and may cause chemical skin burns.
<b>Serious Eye Damage/Eye Irritation:</b>	Product is corrosive to the eyes and may cause corneal burns.
<b>Respiratory or Skin Sensitisation:</b>	Product is a skin sensitiser and may cause an allergic skin reaction. Not expected to be a respiratory sensitiser.
<b>Chronic Exposure:</b>	
<b>Mutagen/Carcinogen/Reproductive Toxicant</b>	No information available. Product is not expected to be mutagenic, carcinogenic or a reproductive toxicant.
<b>Specific Target Organ Toxicity Single Exposure:</b>	No information available. Not expected to be a specific target organ toxicant by single exposure.
<b>Specific Target Organ Toxicity Repeated Exposure:</b>	No information available. Not expected to be a specific target organ toxicant by repeated exposure.
<b>Aspiration Hazard:</b>	No information available. Not expected to be an aspiration hazard.
	Toxicity data is based on hazardous ingredient information and concentrations and information for those ingredients in the European Chemical Agencies Database.

<b>SECTION 12. ECOLOGICAL INFORMATION</b>
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<b>Ecotoxicity:</b>	Product is classified as very toxic in the aquatic environment with acute effects. Product dissolves slowly in water.  LC/EC <sub>50</sub> < 1 mg/L
<b>Persistence/degradability:</b>	No information available.
<b>Bioaccumulation:</b>	No information available.
<b>Mobility in soil:</b>	No information available.
<b>Other adverse effects:</b>	None identified.
<b>Ingredients with Ecotoxic classifications:</b>	1-Bromo-3-Chloro-5,5-Dimethylhydantoin

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**Supporting Data:**

Aquatic	LC50	0.4mg/L (96hr, Rainbow Trout)
	LC50	2.25mg/L (96hr, Fathead Minnow)
	LC50	0.46mg/L (96hr, Bluegill Sunfish)
	LC50	13mg/L (grass shrimp)
	LC50	20mg/L (96hr, Sheepshead Minnow)
	LC50	>640mg/L (American Oyster)
	LC50	0.75mg/L (48hr, Daphnia Magna)

Ecotoxicity data is based on hazardous ingredient information and concentrations and information for those ingredients in the European Chemical Agencies Database.

<b>SECTION 13. DISPOSAL CONSIDERATIONS</b>
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**Restrictions:** There are no product specific restrictions, however local council and resource consent conditions may apply, including requirements of trade waste consents.

**Disposal Method:** Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment. Dispose of via an approved waste disposal contractor.

**Contaminated Packaging:** Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017, Clause 12. Ensure that the package is rendered incapable of containing any substances and is disposed of in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible, reuse or recycle packaging.

<b>SECTION 14. TRANSPORT INFORMATION</b>
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<b>UN Number:</b>	3085
<b>Proper Shipping name:</b>	OXIDIZING SOLID CORROSIVE N.O.S (1-BROMO-3-CHLORO-5, 5-DIMETHYLHYDANTOIN)
<b>Dangerous Goods Class:</b>	5.1 - Oxidiser
<b>Sub Class:</b>	8 - Corrosive
<b>Packing group:</b>	II
<b>Hazchem Code:</b>	1W
<b>Marine Pollutant:</b>	Yes

Particular care in handling should be exercised if packages have become wetted. Ensure transportation methods prevent leakage from packages and collapsing loads.

<b>SECTION 15. REGULATORY INFORMATION</b>
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<b>Group Standard Allocation:</b>	Oxidising Liquid and Solids (Corrosive) Group Standard 2020
<b>HSNO Approval Code:</b>	HSR002632
<b>MPI Approved:</b>	C 62 (All animal product, except dairy)
<b>Classifications:</b>	Oxidising solid – Category 2 Acutely toxic, oral – Category 4 Skin corrosion – Category 1B Serious eye damage – Category 1 Skin sensitisation – Category 1

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Hazardous to the aquatic environment, acute – Category 1

**NZ Inventory of Chemicals:**

All hazardous ingredients are listed in the NZ Inventory of Chemicals.

This substance triggers:

Location Compliance Certificate	250kg* (closed), 50kg (open)
Certified Handler	N/A
Emergency Response Plan	100kg
Secondary Containment	N/A
Signage	100kg

\*Location compliance certificate is triggered at 250kg due to skin corrosion classification.

This substance is not required to be Tracked. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

## SECTION 16. OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO for use as a water sanitiser. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued: 27 November 2023

Supersedes: 16 November 2023 & 23 November 2023

Reason for Revision: Update to meet requirements of EPA NZ Hazardous Substances (Safety Data Sheets) Notice. Correction of substance name.

**References:**

EPA NZ Inventory of Chemicals

European Chemical Agencies Database

EPA Guide: Guide to Classifying Hazardous Substances in New Zealand, Version 1

Summary of Abbreviations: EPA – Environmental Protection Authority  
GHS – Global Harmonisation System  
CAS – Chemical Abstracts Service  
TWA – Time Weighted Average  
STEL – Short Term Exposure Limit

SDS prepared by Simonne Moses, Responsible Care NZ.

## END OF SAFETY DATA SHEET

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