

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name:	BROMINE TABLET
Trade Name:	Bromine Tablets
Synonym(s):	BROMOCHLORO-5,5-DIMETHYLHYDANTOIN
Product Use:	To keep spa and hot tub water sanitised and sparkling clean.
Distributor	Poolcare Ltd
Address:	54A Hewletts Road, Mount Maunganui
Telephone:	+64 7 575 8471
Email:	Davd@poolcareltd.nz
Website:	http://www.poolcareltd.nz/
Emergency Number(s):	For advice, contact the National Poisons Centre (New Zealand: Phone 0800 764 766) or a doctor

SECTION 2: HAZARDS IDENTIFICATION

Type of Hazard:	No 8.3 in GB6944 — 86, Corrosive solid.
Routes of Entry:	Absorption, inhalation, ingestion.
Health Hazards:	Strong irritation to aspiration organs, eyes and skin. Dust inhalation can cause aspiration organ reddening, cough, decompensation and lung damage. Eye contact can cause twitching, reddening and discomfort, irreversible eye damage and blindness. Prolonged skin contact may cause skin reddening, twitching and cankerous sores.
Environmental Hazards:	Aquatic, terrestrial vertebrates.
Explosion Danger:	Produces irritating and choking gas (Hydrogen Bromide, Hydrogen Chloride, Bromide gas and Nitrogen Oxides) under strong light, fire and high temperatures.
HSNO Classifications:	5.1.1B, 6.1B, 6.5B, 8.2C, 8.3A, 9.1A, 9.3B.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Bromochloro-5,5-dimethylhydantoin.
Ingredient of Toxin:	Bromochloro-5,5-dimethylhydantoin.
Appearance:	Tablet.
Content:	92-98%.
Weight:	20 g ± 1 g.
CAS No.:	16079-88-2.

SECTION 4: FIRST AID MEASURES

Inhalation:	Provide fresh air, warmth and rest, in a comfortable upright sitting position. Get medical attention if discomfort continues.
Skin Contact:	Immediately remove contaminated clothes and flush skin with soap and plenty of water.
Eye Contact:	In case of contact, hold eyelids apart and immediately flush eyes with 0.1% Saline solution and plenty of water for 10 minutes. If discomfort continues, get medical help immediately.
Ingestion:	Drink large amounts of 0.5% Iron sulphate solution and water to vomit. Get medical help immediately.

MATERIAL SAFETY DATA SHEET

SECTION 5: FIRE FIGHTING MEASURES

Characteristic of Danger:	Material is a strong oxidiser. Has an unusual, irritating odour. Decomposes in water and bases. Reacts with reducing agents and organic chemicals. Produces poisonous gas when heated or exposed under light.
Harmful Combustion Product:	HBr, HCl, NO ₂ , CO.
Extinguishing and Media:	Foam, dry ice, sand and water. DO NOT use CO ₂ or dry chemicals.
Protective Measures in Fire:	Use self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Disposal:	Clean up as much of the spill as possible. Prevent from entering drains.
Elimination Measures:	Carefully sweep up material and place in a compatible container for reclamation. Then spray 1% Iron Sulphate solution and flush with plenty of water.

SECTION 7: HANDLING AND STORAGE

Personal Protective Equipment:	Wear dust mask, goggles and chemical-resistant overalls.
Note for Storage:	Do not re-use container. Store the product in a cool, dry and ventilated place. Store away from reducing agents, food and organic chemicals.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Upper Concentration Limit:	Not Known.
Monitoring Ways:	Not Known.
Engineering Control:	Use local exhaust ventilation.
Respiratory Protection:	Wear dust mask. General room ventilation is normally adequate.
Eye Protection:	Safety glasses with side shields or goggles.
Body protection:	Chemical-resistant overalls.
Hand protection:	Chemical-resistant gloves.
Other protection:	Do not come into contact with food or beverages while handling chemicals. Always wash hands thoroughly after handling chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	White or off-white tablet with faint Halogen smell.
PH:	3.5-4.5 (1% BCDMH in water).
Melting Point:	156-163°C.
Boiling Point:	Not available.
Specific Gravity:	1.8-2.0.
Specific Vapor Density:	Not volatile.
Flash Point:	Not flammable.
Burning Temperature:	Not flammable.
Upper Explosive Limit:	Not applicable.
Lower Explosive Limit:	Not applicable.
Solvent Solubility:	1.9 g/L at 25 (in water).
Application:	Sterilisation, killing off algae.

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SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Strong light, high temperature and moisture.
Incompatibilities: Acids, bases, oxidizers, reducing agents, organic chemicals.
Hazardous Polymerisation: Will not occur.

Hazardous Decomposition Products: Thermal decomposition forms HBr, HCl, NO₂, CO, CO₂, decomposition in water produces HBr, HCl, NH₃, CO₂.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Acute toxicity. LD₅₀. Oral Rat. 578 mg/kg.
Acute toxicity LD₅₀. Skin Rat. >2000 mg/kg.
Acute toxicity LD₅₀. Inhalation Rat LC₅₀=0.168 mg/L of air.

Subsidiary and Chronic Toxicity: None.

Irritability: BCDMH was considered corrosive to the skin. The primary skin irritation index was calculated to be 6.1.

Sensitization: Prolonged or repeated skin contact with solid BCDMH resulted in minor reddening of the skin and superficial necrosis with the development of excessive exfoliation. Contact with dilute solutions of 0.1% or less was not irritating to the skin. Eye contact with BCDMH powder resulted in persistent severe conjunctiva irritation and slow development of corneal damage in rabbits. Washing the eye promptly resulted in a significant reduction of adverse effects. Dilute solutions of 0.1% or less were non-irritating to the eyes.

Mutagenicity: BCDMH was tested for potential mutagenic effects using Salmonella and Saccharomyces. All the results of the tests were negative.

Deformity: No deformity to rat sperm.

Carcinogenicity: Not found.

SECTION 12: ECOLOGICAL INFORMATION

Ecological Toxicity: Not available.
Biological Decomposition: Not available.
Non- biological Decomposition: Not available.
Biological Concentration or Accumulation: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Properties of Waste: Hazardous waste.
Waste Disposal Methods: Controlled burning, absorbing waste gas by limewater.
Note: Do not reuse package and container. Thorough clean out before disposing.

SECTION 14: TRANSPORT INFORMATION

UN No.: 3085.
CLASS: 5.1.

MATERIAL SAFETY DATA SHEET

Packing Label:



Packing Category:

Oxidizing solid.

Packing Methods:

Seal in plastic bag and then over-pack in larger bag. Put in cannikin.

Transportation Note:

Prevent exposure to high temperature, moisture and sunlight.

SECTION 15: REGULATORY INFORMATION

New Zealand: This substance is classified as a hazardous substance in accordance with the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Approval Number: HSR 003431.

Regulatory Information: 1. In the 《Rules for Safety Managing of Chemical Hazards》 released on Feb. 17, 1987, by the Chinese State Department, the production, utilization, storage, transportation and loading of chemical hazards have been regulated.
2. Based the 《Classification and labels of dangerous chemical substances commonly used》 GB13690-92 and the 《Classification and code of dangerous goods》 GB6944-86. BCDMH was classified as No. 8.3, Oxidative and corrosive solid.