



SALES & SERVICES

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Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : POOLKING SPA BROMINE

1.2 Other means of identification

Bromine tablets; BCDMH tablet; 1-Bromo-3-chloro-5,5-dimethylhydantoin; Bromochloro-5,5-Dimethylhydantoin; Bromochloro-5,5-Dimethylimidazolidine-2,4-dione

1.3 Recommended use of the product and restrictions on use

Swimming pool & spa sanitiser

1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

1.5 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

Oxidising solids (Category 2)

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin corrosion (Category 1)

Serious eye damage (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

: Danger

Hazard statement(s)

H272

May intensify fire; oxidiser.

H302

Harmful if swallowed.

H312

Harmful in contact with skin.

H314

Causes severe skin burns and eye damage.

H332

Harmful if inhaled.

Precautionary statement(s)

Prevention

P210

Keep away from heat.

P220

Keep/store away from clothing/combustible materials.

P221

Take any precaution to avoid mixing with combustibles.

P260

Do not breathe dust or mist.

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312	If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a comfortable position 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 CENTRE or doctor/physician.
P322	Specific measures (see supplemental first aid instructions on this label).
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.

Storage

P405	Store locked up.
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Disposal

P501	Dispose of contents/ container to an approved waste disposal plant.
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2.3 Other hazards

No information provided

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
1-Bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	Ox. Sol. 2; Acute Tox. 4; Skin Corr. 1; Eye Dam. 1; H272, H302, H312; H314, H332	> 96

For the full text of the H-Statements mentioned in this section, see Section 2.2

4. FIRST AID MEASURES

4.1 Description of First Aid measures

General advice

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

In case of skin contact

Remove contaminated clothing and wash affected areas with soap and water. Consult a doctor/physician. Launder clothing before reuse.

In case of eye contact

In case of eye contact, check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. Consult a doctor/physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

5.2 Special hazards arising from the chemical

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas, Hydrogen bromide gas

5.3 Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus and suitable protective clothing.

5.4 Hazchem code

1Y

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see Section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition – No smoking. Keep away from heat and sources of ignition. Take precautionary measures against static discharges by bonding and grounding equipment. Do NOT mix with other chemicals. Do NOT add water to the product - add the product to the water

For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry, well-ventilated place and out of direct sunlight. Check regularly for spills. Never allow product to get in contact with water during storage. Store away from sources of heat and ignition. Do not store near acids. Store away from incompatible materials described in Section 10.

This material is classified as a Dangerous Goods Class 5.1 Oxidising and a Subsidiary Risk 8 Corrosive substance by the criteria of the ADG Code and must be stored and handled in accordance with the relevant regulations.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

No exposure standard has been established for this product. However, the exposure for dust not otherwise specified :

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m ³	ppm	mg/m ³		
Inspirable dust	ASCC		1	-	-	-	-
Respirable dust	ASCC		3	-	-	-	-

As published in "Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA.

Biological Limits

None allocated for this product.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and inhaling dusts. Use with local exhaust ventilation or while wearing appropriate respirator. Keep containers closed when not in use.

Personal protective equipment (PPE)

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.

Eye/face protection

Face shield and safety glasses or goggles. See Australian Standards (AS/NZS 1336 & 1337).

Skin protection

Wear protective gloves and protective clothing appropriate for the risk of exposure. See Australian Standards (AS 2161 & 2919 and AS/NZS 2210). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. See Australian Standards (AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Granular solid - Tablet Colour : White / Off-White
Odour:	Faint bromine odour
Odour Threshold:	No data available
pH:	3.4 – 3.5 (0.1% solution @ 20°C)
Melting Point:	145 - 162°C (OECD Test Guideline 102)
Decomposition Temperature:	165°C
Evaporation Rate:	Not applicable
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Specific Gravity:	Not available
Vapour Density (air=1):	Not available
Vapour Pressure:	Not applicable
% Volatiles:	Not applicable
Solubility in water:	1.5 g/L @ 20°C

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reacts with strong bases, oxidising agents and organic chemicals. Contact with acids liberates toxic gas.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Elevated temperature and impurities (alkalis). Protect from moisture. Avoid excessive heat. Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials

Combustible materials. Strong oxidizing agents. Bases.

10.6 Hazardous decomposition products

Heating or fire can release toxic gas. Decomposition products may include bromine, chlorine, nitrogen oxides (NO_x), carbon oxides, halogenated compounds, hydrogen chloride (HCl), hydrogen bromide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD₅₀ Oral - rat - 1390 mg/kg

LD₅₀ Skin - rat - >2000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

No data available

Health Effects

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Eye contact : Causes serious eye damage. Adverse symptoms may include pain, watering, redness.

Skin contact : Causes severe burns. Adverse symptoms may include pain or irritation, redness, blistering may occur.

Ingestion : Harmful or fatal if swallowed. May cause burns to mouth, throat and stomach. Adverse symptoms may include stomach pains.

Inhalation : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

11.2 Information on possible routes of exposure

The substance can be absorbed into the body by inhalation, ingestion, eyes & skin.

11.3 Additional Information

RTECS: MT9195400

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Avoid contaminating waterways.

Toxicity to fish:

LC₅₀ - Oncorhynchus mykiss (rainbow trout) = 0.16 mg/L, 96.0 h

LC₅₀ - Oncorhynchus mykiss (rainbow trout) = 0.16 mg/L, 96.0 h

Toxicity to daphnia & other aquatic invertebrates

LC₅₀ - Daphnia magna (water flea) = 0.63 mg/L, 48h

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. All empty packaging should be disposed of as unused product.

13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number

ADG : 1479

IMDG : 1479

IATA : 1479

14.2 Proper shipping name

ADG : Oxidising Solid, Corrosive, N.O.S. (2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl)

IMDG : Oxidising Solid, Corrosive, N.O.S. (2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl)

IATA : Oxidising Solid, Corrosive, N.O.S. (2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl)

14.3 Transport hazard class

ADG : 5.1

IMDG : 5.1

IATA : 5.1

14.4 Subsidiary Risk(s)

ADG : 8

IMDG : 8

IATA : 8

14.5 Packing group

ADG : III

IMDG : III

IATA : III

14.6 Environmental hazards

ADG : No

IMDG Marine Pollutant : No

IATA : No

14.7 Special precautions for users No data

14.8 Hazchem code

ADG : 1Y

IMDG EMS : F-A, S-Q

IATA : 1Y

14.9 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule : S6

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

16. OTHER INFORMATION**Key / legend to abbreviations and acronyms used in the MSDS**

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Eye Dam.	Serious eye damage
Ox. Sol.	Oxidising solids
Skin Corr.	Skin corrosion
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
LC ₅₀	Lethal concentration that kills 50% of an animal population within a specified time
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm ³	Grams per cubic centimetre
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA
Work Health and Safety Regulations 2011

Disclaimer

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