

Section 1 – Identification of the Material and Supplier

Product Name: Spapure Spa Bromine Tablets
Other Name: Bromine tablets
Chemical Nature: Bromine and chlorine generating reagent
Product Use: Spa, pool and hot tub sanitiser.
Creation Date: 1/01/2018
This version issued: 1/01/2018 and is valid for 5 years from this date.

Details of Manufacturer:

Evolution Water & Lighting Solutions Pty Ltd
 1/33 Hinkler Drive, Highland Park QLD 4211
 Phone: +61 7 5565 0000
 Fax: +61 7 5565 0010
 Email: enquiries@evolutionwls.com.au

Emergency Telephone Number: 000

Poisons Information Centre: 131 126 in Australia, 0800 764 766 in New Zealand

Section 2 – Hazards Identification

Statement of Hazardous Nature

This product is classified as: T, Toxic. N, Dangerous to the environment. C, Corrosive. Hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

SUSMP Classification: S6
ADG Classification: Class 5.1: Oxidising substances.
UN Number: 1479, OXIDIZING SOLID, N.O.S.

GHS Signal word: DANGER

Oxidising liquids or solids Category 2 or 3
 Acute Toxicity Oral Category 4
 Skin Corrosion /Irritation Category 1
 Acute Toxicity Inhalation Category 4
 Hazardous to aquatic environment Short term/Chronic Category 1



HAZARD STATEMENT:

H272: May intensify fire; oxidizer.
 H302: Harmful if swallowed.
 H314: Causes severe skin burns and eye damage.
 H332: Harmful if inhaled.
 H335: May cause respiratory irritation.
 H410: Very toxic to aquatic life with long lasting effects.

PREVENTION

P102: Keep out of reach of children.
 P220: Keep or store away from combustible materials.
 P221: Take any precaution to avoid mixing with combustible or flammable materials.
 P260: Do not breathe dusts.
 P262: Do not get in eyes, on skin, or on clothing.
 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.
 P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P337: If eye irritation persists: seek medical attention.
 P363: Wash contaminated clothing before reuse.
 P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
 P370+P378: Not combustible. Use extinguishing media suited to burning materials.

STORAGE

P403: Store in a well-ventilated place.
 P405: Store locked up.
 P410: Protect from sunlight.
 P402+P404: Store in a dry place. Store in a closed container.

DISPOSAL

P501: If product can not be recycled, contact a specialist waste disposal company (see Section 13 of this SDS).

Section 3 – Composition/Information on Ingredients

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
1-Bromo-3-chloro-5,5-dimethylhydantoin	C ₅ H ₆ BrClN ₂ O ₂	16079-88-2	Min 96%

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

Section 4 – First Aid Measures

General Information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 131 126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If inhalation occurs, contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Quickly and gently brush away excess solids. Seek immediate medical attention. Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Flush contaminated area with lukewarm, gently flowing water for at least 20-30 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). If irritation persists, repeat flushing. Seek medical attention.

Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

Section 5 – Fire Fighting Measures

Fire and Explosion Hazards: There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. The presence of this product in a fire is likely to intensify the fire due to its oxidising properties.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Coarse water spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Ensure adequate ventilation. Do not breathe dust.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and contain spill. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash contaminated area with water and detergent.

Section 7 – Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination, especially from combustible or reducing materials. Make sure that the product does not come into contact with or substances listed under "Incompatibilities" in Section 10. If you keep more than 10,000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 – Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

SWA Exposure Limits

TWA (mg/m³)

STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

Skin Protection: Because of the dangerous nature of this product, make sure that all skin areas are completely covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

Section 9 – Physical and Chemical Properties

Physical Description & colour:	White tablets.
Odour:	Halogen (bromine & chlorine) odour.
Boiling Point:	Not applicable.
Freezing/Melting Point:	Decomposes before melting >145°C
Volatiles:	Nil at 100°C.
Vapour Pressure:	Negligible at normal ambient temperatures.
Vapour Density:	No data.
Specific Gravity:	0.96
Water Solubility:	1.5g/L at 20°C
pH:	3.4-3.6 (1g/L at 20°C)
Volatility:	Negligible at normal ambient temperatures.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	Not applicable - does not burn.

Section 10 – Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties. Check the Safety Directions on the product label for further details of incompatibilities.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep isolated from combustible materials.

Incompatibilities: strong acids, strong reducing agents, zinc, tin, aluminium and their alloys, combustible materials.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 – Toxicological Information

Toxicity:

LD50/LC50 Values Relevant for Classification
16079-88-2 2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-
Oral LD50 1390mg/kg (rat)

Acute Health Effects

Inhalation: May be harmful if inhaled. Irritating to the nose, throat, mucous membranes and upper respiratory tract.

Skin: Corrosive to skin. May cause chemical burns.

Eye: Corrosive to eyes. May cause chemical burns.

Ingestion: Harmful if swallowed.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes eye damage.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

Germ Cell Mutagenicity: No information available

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: No information available

Specific Target Organ Toxicity (STOT) - Single Exposure: No information available

Specific Target Organ Toxicity (STOT) - Repeated Exposure: No information available

Aspiration Hazard: No information available

Chronic Health Effects: Repeated or prolonged contact may cause reddening, general irritation, a burning sensation or irreversible damage to the skin and eyes. Inhalation of dust can cause nasal and throat irritation.

Existing Conditions Aggravated by Exposure: Existing dermatitis may be aggravated by exposure.

Section 12 – Ecological Information

Ecotoxicity: Very toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment. Avoid contaminating waterways.

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Section 13 – Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration: Consult your state Land Waste Management Authority for more information.

Section 14 – Transport Information

UN Number ADG, IMDG, IATA: 1479

Proper Shipping Name ADG, IMDG, IATA: OXIDIZING SOLID, N.O.S. (2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-)

Dangerous Goods Class ADG Class: 5.1 Oxidising substances.

Packing Group ADG, IMDG, IATA: II

Hazchem Code: 1Y

Special Provisions: 274

Limited Quantities: 1 kg

Packagings & IBCs - Packing Instruction: P002, IBC08

Packagings & IBCs - Special Packing Provisions: B2, B4

Portable Tanks & Bulk Containers - Instructions: T3

Portable Tanks & Bulk Containers – Special Provisions: TP33

Section 15 – Regulatory Information

Australian Inventory of Chemical Substances:

16079-88-2 2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 5

Section 16 – Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG:	Australian Dangerous Goods
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
GHS:	Globally Harmonised System of Classification and Labelling of Chemicals
VOC:	Volatile Organic Compounds
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
IARC:	International Agency for Research on Cancer
STEL:	Short Term Exposure Limit
SDS:	Safety Data Sheet
SWA:	Safe Work Australia
CAS Number:	Chemical Abstracts Service Registry Number
SUSMP:	Standard for the Uniform Scheduling of Medicines and Poisons
AICS:	Australian Inventory of Chemical Substances

Disclaimer:

This Safety Data Sheet (SDS) is prepared in accord with the Safe Work Australia document "Preparation of Safety Data Sheets for Hazardous Chemicals, Code of Practice, February 2016".

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