

**SAFETY DATA SHEET****SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

<b>Chemical nature:</b>	Bromo chloro dimethylhydantoin.
<b>Trade Name:</b>	<b>ClearChem Spa Bromine Tab</b>
<b>Product Use:</b>	Spa treatment tablets.
<b>Creation Date:</b>	<b>September, 2021</b>
<b>This version issued:</b>	<b>September, 2021</b> and is valid for 5 years from this date.
<b>Poisons Information Centre:</b>	<b>Phone 13 1126 from anywhere in Australia</b>

**SECTION 2 - HAZARDS IDENTIFICATION****Statement of Hazardous Nature**

This product is classified as: Hazardous according to the criteria of SWA.

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

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 5.1: Oxidising substances.

**UN Number:** 1479, OXIDIZING SOLID, N.O.S.

**GHS Signal word: DANGER**

Oxidising solids – category 3

Skin corrosion – category 1

Specific target organ toxicity (single exposure) – category 3

Hazardous to the aquatic environment (chronic) – category 1

**HAZARD STATEMENT:**

H272: May intensify fire; oxidizer.

H314: Causes severe skin burns and eye damage.

H335: May cause respiratory irritation.

H410: Very toxic to aquatic life with long lasting effects.

**PREVENTION**

P220: Keep or store away from combustible materials.

P260: Do not breathe dusts.

P264: Wash contacted areas thoroughly after handling.

P271: Use only outdoors or in a well ventilated area.

P280: Wear protective gloves, protective clothing and eye or face protection.

**RESPONSE**

P310: Immediately call a POISON CENTRE or doctor/physician.

P363: Wash contaminated clothing before reuse.

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.

P332+P313: If skin irritation occurs: Get medical advice.

P391: Collect spillage.

P370+P378: Not combustible. Use extinguishing media suited to burning materials. Coarse water spray is the preferred medium for large fires.

**STORAGE**

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

**DISPOSAL****SAFETY DATA SHEET**

P501: Dispose of contents and containers to landfill.

## EMERGENCY OVERVIEW

**Physical Description & colour:** White tablets.

**Odour:** Halogen odour.

**Major Health Hazards:** causes severe burns, respiratory tract irritant.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
1-Bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	**	not set	not set

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

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

## 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 13 1126 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 irritation occurs, contact a Poisons Information Centre, or call a doctor. 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. In severe cases, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

**Skin Contact:** Quickly and gently brush away excess particles. 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 60 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. 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:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. 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 full fire kit 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.

## SAFETY DATA SHEET

Issued by: ClearChem

Freecall 1800 64 POOL (office hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include cotton, rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles e.g. silica & asbestos. Stop leak if safe to do so, and contain spill. Under no circumstances should sawdust or other combustible material be used. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute reducing agent. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## 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:** 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**.

<b>SWA Exposure Limits</b>	<b>TWA (mg/m<sup>3</sup>)</b>	<b>STEL (mg/m<sup>3</sup>)</b>
----------------------------	-------------------------------	--------------------------------

Exposure limits have not been established by SWA for 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: cotton, 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.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical Description &amp; colour:</b>	White tablets.
<b>Odour:</b>	Halogen odour.
<b>Boiling Point:</b>	Not applicable.
<b>Freezing/Melting Point:</b>	Decomposes >140°C before melting.
<b>Volatiles:</b>	No data.

### SAFETY DATA SHEET

<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	Not applicable.
<b>Specific Gravity:</b>	0.96 at 20°C
<b>Water Solubility:</b>	1.5g/L at 20°C
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	Not applicable.
<b>Coeff Oil/water distribution:</b>	No data
<b>Viscosity:</b>	Not applicable.
<b>Decomposition temp:</b>	>140°C
<b>Autoignition temp:</b>	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 isolated from combustible materials.

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

**Fire Decomposition:** 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. Occasionally hydrogen cyanide gas in reducing atmospheres. May form hydrogen chloride gas, other compounds of chlorine. Bromine compounds. 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

---

**Local Effects:**

**Target Organs:** There is no data to hand indicating any particular target organs.

---

## CLASSIFICATION OF HAZARDOUS INGREDIENTS

---

**Ingredient**

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

---

## POTENTIAL HEALTH EFFECTS

---

**Inhalation:**

**Short term exposure:** Available data indicates that this product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.

**Long Term exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:**

**Short term exposure:** Available data indicates that this product is corrosive to the skin. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

**Long Term exposure:** No data for health effects associated with long term skin exposure.

**Eye Contact:**

**Short term exposure:** This product is very corrosive to eyes. It will quickly cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is immediately treated, permanent blindness and facial scarring will occur.

**Long Term exposure:** No data for health effects associated with long term eye exposure.

---

## SAFETY DATA SHEET

**Ingestion:**

**Short term exposure:** Significant oral exposure is considered to be unlikely. However, this product is corrosive to the gastrointestinal tract. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

**Long Term exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

---

**SECTION 12 - ECOLOGICAL INFORMATION**

---

Very toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

---

**SECTION 13 - DISPOSAL CONSIDERATIONS**

---

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill, but we recommend that it be neutralised in a controlled manner before disposal.

---

**SECTION 14 - TRANSPORT INFORMATION**

---

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

**UN Number:** 1479, OXIDIZING SOLID, N.O.S.

**Hazchem Code:** 1Y

**Special Provisions:** 223, 274

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 kg for this class of product.

**Dangerous Goods Class:** Class 5.1: Oxidising Agents.

**Packing Group:** III

**Packing Instruction:** P002, IBC08, LP02

Class 5.1 Oxidising Agents shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 2.1 (Flammable Gases), 2.3 (Toxic Gases), 3 (Flammable Liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.2 (Organic Peroxides), 6 (Toxic Substances, where the Toxic Substance is a fire risk substance), 7 (Radioactive Substances), 8 (Corrosive Substances), 9 (Miscellaneous Dangerous Goods, where the substance is a fire risk substance), Fire risk substances other than Dangerous Goods. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-Flammable, Non-Toxic Gases), 6 (Toxic Substances except where the substances are fire risk substances), 9 (Miscellaneous Dangerous Goods except where the goods are fire risk substances) Foodstuffs and foodstuff empties.

---

**SECTION 15 - REGULATORY INFORMATION**

---

**AICS:** This product is compliant with NICNAS regulations.

The following ingredient: 1-Bromo-3-chloro-5,5-dimethylhydantoin, is mentioned in the SUSMP.

---

**SECTION 16 - OTHER INFORMATION**

---

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

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)

**SAFETY DATA SHEET**

Issued by: ClearChem

Freecall 1800 64 POOL (office hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

**SUSMP**

Standard for the Uniform Scheduling of Medicines & Poisons

**UN Number**

United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

**Please read all labels carefully before using product.**

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)

Copyright © Kilford & Kilford Pty Ltd, September, 2021.

<http://www.kilford.com.au/> Phone (02)8321 8866

**SAFETY DATA SHEET**