

1. Identification of the substance/preparation and of the company/undertaking

- **Trade Name:** Bromine Tablets
- **Other names** Bromochloro-5-5,dimethylhdantoin, BCDMH
Bromo-chloro-5,5-dimethylimidazolidine-2,4-dione
- **Intended use of chemical** For disinfection of pool and spa water.
- **Manufacturer/Supplier** Complete Pool Controls Ltd
Unit 2, The Park
Stoke Orchard
Bishops Cleeve
Gloucestershire
GL52 7RS

Tel: +44 (0) 8712 229081 Fax:+44 (0) 8712 229083
- **Contact E-mail for advice** E-mail: sales@cpc-chemicals.co.uk
- **Emergency Telephone** Tel: +44 (0) 8712 229081 (office hours)

2. Hazard Identification



Xn: Harmful
O: Oxidising
N: Dangerous for the environment

- R8 Contact with combustible material may cause fire
R22 Harmful if swallowed
R31 Contact with acids liberates toxic gas.
R36/37/38 Irritating to eyes, respiratory system and skin
R50 Very toxic to aquatic organisms.

• GHS label elements



Danger

H272: May intensify fire; oxidizer



Warning

H400: Very toxic to aquatic life



Warning

H302 + EUH031: Harmful if swallowed. Contact with acids liberates toxic gas
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation

• Prevention

- P221: Take any precaution to avoid mixing with combustibles
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P220: Keep/Store away from clothing/combustible materials
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection

(contd on Page 2)

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2. Hazard Identification (continued)

• Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing
P321: Specific treatment (see ... on this label)
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P301+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

• Storage

P405: Store locked up
P403+P233 Store in a well ventilated place. Keep container tightly closed.

• Disposal

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

3. Composition/information on ingredients

• Chemical characterization:

• **CAS No. Description** 32718-18-6 Bromochloro-5-5,dimethylimidazolidine-2,4-dione

• Identification Number(s)

• **EINECS Number:** 251-171-5
• **Formula Hill:** C5H6BrClN2O2
• **Molecular Weight:** 214,5 g/mol

4. First Aid measures

- **General Information:**
 - ~ Immediately remove any clothing soiled by the product.
 - ~ Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
 - ~ Supply fresh air; consult doctor in case of complaints.
 - ~ In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
 - ~ Immediately wash with water and soap and rinse thoroughly.
 - ~ If skin irritation continues, consult a doctor.
- **After eye contact:**
 - ~ Rinse opened eyes for several minutes under running water. Then consult a doctor.
- **After Swallowing:**
 - ~ Immediately rinse mouth and drink plenty of water.
 - ~ Call for a doctor immediately.

5. Fire fighting measures

- **Suitable extinguishing media:**
 - ~ Use fire extinguishing methods suitable to surrounding conditions
 - ~ Water ~ Foam
- **For Safety Reasons unsuitable extinguishing media:** ABC powder
- **Special hazards caused by the substance, its products:**
- **Special exposure hazards in fire:** During heating or in case of fire poisonous gases are produced.

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5. Fire fighting measures....(cont)

- **Special protective equipment:**
 - ~ Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA).
 - ~ Thoroughly decontaminate fire-fighting equipment including all fire fighting wearing apparel after the incident.
 - ~ Do not inhale explosion gases or combustion gases.

6. Accidental release Measures

- **Personal Protection**
 - ~ Use appropriate personal protective equipment as detailed in section 8
 - ~ Ensure adequate ventilation
 - ~ Avoid formulation of dust
 - ~ Use respiratory device against the effects of fumes/dust/aerosol
- **Environmental Protection**
 - ~ Inform authorities in case of seepage into ground, water course or sewer system.
 - ~ Do not allow to penetrate the ground/soil
 - ~ Do not allow to enter sewers/surface or ground water
- **Methods for cleaning:**
 - ~ Ensure adequate ventilation.
 - ~ Pick up mechanically
 - ~ Prevent formation of dust
 - ~ Send for recovery or disposal in suitable receptacles
 - ~ Dispose of contaminated material as waste according to item 13

7. Handling and storage

- **Information for safe handling and storage:**
 - ~ Do not seal receptacles gas-tight.
- **Handling:**
 - ~ Ensure adequate ventilation.
 - ~ Prevent formation of dust
 - ~ Provide suction extractors if dust is formed

Information about fire and explosion protection: ~ No special measures required

- **Storage**
 - Requirements to be met by storerooms:** ~ Store only in original receptacles

Information about storage in common facility: ~ Store away from foodstuffs.

Further information

- ~ Store in cool dry conditions in well sealed receptacles,
- ~ Keep container tightly sealed
- ~ Do not seal receptacle gas tight

8. Exposure control/personal protection

- **Exposure control limits:** No value assigned for this product
- **Additional Information** The lists valid during the making were used as basis

• Personal Protective Equipment

General protective and hygienic measures

- ~ Keep away from all foodstuffs, beverages and feed.
- ~ Immediately remove all soiled and contaminated clothing.
- ~ Wash hands before break and at the end of work.
- ~ Avoid contact with eyes

• Respiratory Protection

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Hand Protection**  Protective Gloves

- ~ The glove material has to be impermeable and resistant to the product.
- ~ To minimise the wetness in the glove due to perspiration changing of gloves during a shift is required.
- ~ Gloves for underneath or tanniferous skin protective agents to avoid skin softening due to perspiration are required.
- ~ Due to missing tests no recommendation to the glove material can be given for the product/ chemical mixture.
- ~ Selection of the glove material on consideration of the penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material but also on further marks and varies from manufacturer to manufacturer. As the product is a preparation of several substances, resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact breakthrough time has to be found by the manufacturer of the protective gloves and has to be observed.

- **Eye Protection**  Tightly sealed goggles

- **Body Protection** Protective clothing

9. Physical and chemical properties

• General Information

Form:	Granulate
Colour:	White
Odour:	Characteristic

• Change in condition

Melting Point:	158 - 164°C
Boiling Point:	Undetermined

- **Flash Point** 133°C
- **Flammability (solid, gas)** contact with combustible material may cause fire
- **Ignition Temperature** N/A
- **Decomposition Temperature** 160°C
- **Danger of explosion** Product does not present an explosion hazard
- **Density at 20°C** Not determined
- **Solubility/Miscibility with in water** No data available

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10. Stability and reactivity

- **Stability** Stable under normal temperature conditions and recommended use
- **Conditions to avoid** Oxidising agent. Forms explosive mixtures with combustible, organic or other easily oxidisable materials. Avoid heat and direct sunlight. Avoid contact with moisture.
- **Materials to avoid** Strong oxidising substances. Strong alkalis. Flammable/combustible material.
- **Decomposition products** Hydrogen bromide (HBr). Hydrogen chloride (HCl). Oxides of Nitrogen (Nox)

11. Toxicological Information

- **Acute Toxicity**
LD/LC50 values relevant for classification:
Oral LD50 578 mg/kg (rat)
- **Primary Irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes
- **On the eyes:** Irritating effect
- **Sensitization:** No sensitizing effects known

12. Ecological Information

- **Information about elimination (persistence and degradability):**

Other information: No data available

Aquatic toxicity

Inhalative	EC50, 48 Hrs,	0.87 mg/l (static)	(Daphnia magna)
	LC50, 96 Hrs	0.65 mg/l	(Onchorhynchus mykiss)

- **Remark** Very toxic for fish
- **General Notes**
 - ~ Also poisonous for fish and plankton in water bodies
 - ~ Very toxic for aquatic organisms
 - ~ Water hazard Class 2 (German Regulation) (self assessment): hazardous for water
 - ~ Do not allow product to reach ground water, water course or sewage system
 - ~ Danger to drinking water if even small quantities leak into the ground.

13. Disposal Considerations

- **Product**
- **Recommendation**
 - ~ Must not be disposed of together with household garbage
 - ~ Do not allow product to reach sewage system
- **Uncleaned packaging**
- **Recommendation**
 - ~ Disposal must be made according to official regulations.
 - ~ Packaging that cannot be cleansed to be disposed of in the same manner as the product

14. Transport Information

• Land Transport ADR/RID (cross border)



- ADR/RID class 5.1 Oxidising substances
- Danger code (Kemler) 50
- U N No 1479
- Packing group II
- Hazard label 5.1
- Special Marking Symbol (fish and tree)
- Proper shipping name 1479 OXIDISING SOLID, N.O.S. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione)

• Maritime Transport IMDG



- IMDG class 5.1 Oxidising substances
- U N No 1479
- Packing group II
- EMS Number F - A, S - Q
- Marine Pollutant Symbol (fish and tree)
- Proper shipping name 1479 OXIDISING SOLID, N.O.S. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione)

• Air Transport ICAO-TI and IATA-DGR



- ICAO/IATA class 5.1 Oxidising substances
- U N No 1479
- Hazard label 5.1
- Packing group II
- Proper shipping name 1479 OXIDISING SOLID, N.O.S. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione)

15. Regulatory information

- Product Name Bromine Tablets
- Symbol

Xn	Harmful
O	Oxidising
N	Dangerous for the Environment

• Risk phrases

- R8 Contact with combustible material may cause fire
 R22 Harmful if swallowed
 R31 Contact with acids liberates toxic gas.
 R36/37/38 Irritating to eyes, respiratory system and skin
 R50 Very toxic to aquatic organisms.

• Safety phrases

- S8 Keep container dry
 S22 Harmful if swallowed
 S26 In case of contact with eyes, rinse immediately with water and seek medical attention.
 S36/37 Wear suitable protective clothing and gloves
 S41 In case of fire and/or explosion **DO NOT** breathe fumes.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
 S61 Avoid release to the environment. Refer to special instructions/safety data sheets

- National regulations

Class	Share in %
1	100.0

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Abbreviations and acronyms:

- ADR: Accord europeen sur le transport des marchandises dangereuse par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR Dangerous goods Regulations by the 'International Air Transport Association' (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the 'International Civil Aviation Organization' (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- CAS: Chemicals Abstracts Service (division of the Americal Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

Revision	Date	By	Amendment
3	August 09	Lorna Murray	Classification changed to include symbol N, inclusion of new Environmentally Hazardous Mark for transport for packagings larger than 5kg and other minor editorial amendments.
4	January 10	Linda Brueford	Classification changed to include O (Oxidiser). GHS label elements added and other minor editorial amendments