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## Safety data sheet according to UK REACH (SI 2020/1577) as amended

Printing date 29.03.2025

Version number 5 (replaces version 4)

Revision: 29.03.2025

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: Bromine Tablets
- · CAS Number:
- 32718-18-6
- · EC number:
- 251-171-5
- $\cdot$  1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category
- PC8 Biocidal products PC37 Water treatment chemicals
- · Application of the substance / the mixture Disinfectant
- · Uses advised against

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

- · 1.3 Details of the supplier of the safety data sheet
- Supplier: All Swim Ltd Link Trade Park Penarth Road Cardiff CF11 8TQ

Tel: 029 20705059 sales@allswimltd.com

• Further information obtainable from: Product safety department.

• 1.4 Emergency telephone number:

Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111 In Scotland: NHS 24 - dial 111

## **SECTION 2: Hazards identification**

	Classification of the substance or mixture assification according to GB-CLP		
Ox. Sol. 3	H272 May intensify fire; oxidiser.		
Acute Tox. 4	H302 Harmful if swallowed.		
Skin Corr. 1B	H314 Causes severe skin burns and eye damage.		
Eye Dam. 1	H318 Causes serious eye damage.		
Skin Sens. 1	H317 May cause an allergic skin reaction.		
Aquatic Acute 1	H400 Very toxic to aquatic life.		

#### · 2.2 Label elements

• Labelling according to GB-CLP The substance is classified and labelled according to the GB CLP regulation.



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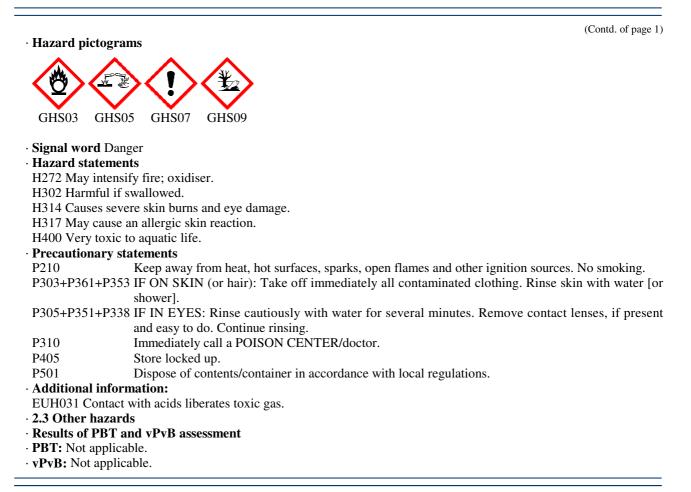
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## **SECTION 3: Composition/information on ingredients**

· 3.1 Substances

- · CAS No. Description
- CAS: 32718-18-6 Bromochloro-5,5-dimethylimidazolidine-2,4-dione
- · Identification number(s)
- EC number: 251-171-5
- · Additional information: Biocidal active substance

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## **SECTION 4: First aid measures**

#### · 4.1 Description of 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:

- In case of inhalation:
- Provide fresh air.
- In case of breathing difficulties administer oxygen.
- No mouth-to-mouth or mouth-to-nose resuscitation. Use respiratory bag or oxygen resuscitation apparatus.
- Do not leave patient unattended.
- In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact:
- Immediately wash with water and soap and rinse thoroughly.
- Seek immediate medical advice.

#### · After eye contact:

- Check for and remove any contact lenses.
- Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- Information for doctor: Treat symptomatically and supportively.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- $\cdot$  4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

## **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:
- Water spray
- Foam
- Use fire extinguishing methods suitable to surrounding conditions.
- $\cdot$  For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Strong oxidiser. Contact with combustible or flammable substances may cause fire.

In case of fire, the following can be released:

- Hydrogen bromide Carbon monoxide (CO)
- Hydrogen chloride (HCl)
- 5.3 Advice for firefighters
- · Protective equipment:
- Wear self-contained respiratory protective device.



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Wear fully protective suit. Do not inhale explosion gases or combustion gases. • Additional information Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

## **SECTION 6: Accidental release measures**

· 6.1 Personal precautions, protective equipment and emergency procedures Avoid formation of dust. Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away. **6.2 Environmental precautions:** Do not allow to penetrate the ground/soil. Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system. 6.3 Methods and material for containment and cleaning up: Pick up mechanically. Do not use combustible materials such as paper towels to clean up spills. Send for recovery or disposal in suitable receptacles. Ensure adequate ventilation. · 6.4 Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

See Section 3 for hisomation on personal produces Section 13 for disposal information.

## **SECTION 7: Handling and storage**

#### · 7.1 Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Rinse contaminated clothing with plenty of water (Fire hazard)

 $\cdot$  Information about fire - and explosion protection: No special measures required.

## · 7.2 Conditions for safe storage, including any incompatibilities

- · Storage:
- · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- $\cdot$  Information about storage in one common storage facility:
- Do not store together with acids.

Store away from oxidising agents.

- Store away from flammable substances.
- Further information about storage conditions:

Protect from humidity and water.



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Store in cool, dry conditions in well sealed receptacles.

· Storage class: 5.1 B

• 7.3 Specific end use(s) No further relevant information available.

## **SECTION 8: Exposure controls/personal protection**

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:
- The usual precautionary measures are to be adhered to when handling chemicals.
- Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- Contaminated clothes are a fire hazard. Rinse with plenty of water.
- **Respiratory protection:** Use suitable respiratory protective device when high concentrations are present.
- · Hand protection



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  $\cdot$  Material of gloves

Natural rubber, NR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.  $\cdot$  Not suitable are gloves made of the following materials:

Leather gloves

Textile gloves.

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#### · Eye/face protection



Tightly sealed goggles conforming to EN166.



Face shield/visor. Use equipment tested and approved under appropriate government stangards such as EN166 (EU) or NIOSH (US)

Use visor in combination with goggles.

#### · Body protection:



Impervious protective clothing

Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by the product. Suitable protective equipment may include: Chemical resistant boots, Chemical resistant apron, Full chemical protective suit with a hood, Chemical protective suit consisting of a jacket and trousers. The jacket should be buttoned up to the neck, sleeves sealed at the gloves, and trouser legs worn outside the boots. These precautions are required to prevent the clothing from accidentally trapping product against the skin.

· Environmental exposure controls Do not allow to enter drains, sewers or watercourses.

· Risk management measures The operators shall be instructed adequately.

SECTION 9: Physical and chemical properties				
· 9.1 Information on basic physical and chemical properties				
· General Information				
· Physical state	Solid			
· Colour:	Yellowish			
· Odour:	Characteristic			
· Odour threshold:	Not determined.			
<ul> <li>Melting point/freezing point:</li> </ul>	Undetermined.			
· Boiling point or initial boiling point and bo	biling range Undetermined.			
· Flammability	Product is not flammable.			
• Lower and upper explosion limit				
· Lower:	Not determined.			
· Upper:	Not determined.			
· Flash point:	Not applicable.			
· Decomposition temperature:	Not determined.			
• pH (1.5 g/l) at 20 °C	3.5			
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· Viscosity:	
· Kinematic viscosity	Not applicable.
· Dynamic:	Not applicable.
· Solubility	••
· water:	Decomposes in water.
· Partition coefficient n-octanol/water (log value) at 25	-
°C	0.35 log POW
· Vapour pressure:	Not applicable.
· Density and/or relative density	••
· Density:	Not determined.
· Relative density	0.9 g/cm <sup>3</sup>
· Vapour density	Not applicable.
· 9.2 Other information	
· Appearance:	
· Form:	Solid
· Important information on protection of health and	1
environment, and on safety.	
· Ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Not applicable
· Flammable gases	Not applicable
· Aerosols	Not applicable
· Oxidising gases	Not applicable
· Gases under pressure	Not applicable
· Flammable liquids	Not applicable
· Flammable solids	Not applicable
<ul> <li>Self-reactive substances and mixtures</li> </ul>	Not applicable
· Pyrophoric liquids	Not applicable
· Pyrophoric solids	Not applicable
<ul> <li>Self-heating substances and mixtures</li> </ul>	Not applicable
· Substances and mixtures, which emit flammable gase	
in contact with water	Not applicable
· Oxidising liquids	Not applicable
· Oxidising solids	May intensify fire; oxidiser.
· Organic peroxides	Not applicable
· Corrosive to metals	Not applicable
· Desensitised explosives	Not applicable

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#### **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions
- Acts as an oxidising agent on organic materials such as wood, paper and fats.
- 10.4 Conditions to avoid Heat and static discharge.
- 10.5 Incompatible materials: Acids Metals Metal oxides Alloys Flammable materials
  10.6 Hazardous decomposition products: Hydrogen chloride (HCl) Hydrogen bromide Bromine Chlorine

### **SECTION 11: Toxicological information**

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

· Acute toxicity Harmful if swallowed.

#### · LD/LC50 values relevant for classification:

- Oral LD50 578 mg/kg (rat)
- · Primary irritant effect:
- · Skin corrosion/irritation
- Causes severe skin burns and eye damage.
- · Serious eye damage/irritation Causes serious eye damage.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

Inhalation may cause lung oedema, but only after initial corrosive effects on eyes and/or airways have become manifest. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an



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appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered.

- · 11.2 Information on other hazards
- · Endocrine disrupting properties Substance is not listed.

## **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- **vPvB:** Not applicable.
- 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:
- Very toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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.

### **SECTION 13: Disposal considerations**

#### $\cdot$ 13.1 Waste treatment methods

#### · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

Do not mix with other waste streams.

Must be specially treated adhering to official regulations.



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#### **Trade name: Bromine Tablets**

#### · Uncleaned packaging:

#### · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

## **SECTION 14: Transport information** · 14.1 UN number or ID number · ADR/RID/ADN, IMDG, IATA UN3085 · 14.2 UN proper shipping name UN3085 OXIDIZING SOLID, CORROSIVE, N.O.S. · ADR/RID/ADN (Bromochloro-5,5-dimethylimidazolidine-2,4-dione), ENVIRONMENTALLY HAZARDOUS OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromochloro-· IMDG, IATA 5,5-dimethylimidazolidine-2,4-dione) · 14.3 Transport hazard class(es) · ADR/RID/ADN · Class 5.1 (OC2) Oxidising substances. · Label 5.1 + 8\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ · IMDG · Class 5.1 Oxidising substances. · Label 5.1/8 (Contd. on page 11) - GB ----



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· IATA	
· Class · Label	<ul><li>5.1 Oxidising substances.</li><li>5.1 (8)</li></ul>
· 14.4 Packing group · ADR/RID/ADN, IMDG, IATA	П
<ul> <li>14.5 Environmental hazards:</li> <li>Marine pollutant:</li> <li>Special marking (ADR/RID/ADN):</li> </ul>	Environmentally hazardous substance, solid Symbol (fish and tree) Symbol (fish and tree)
<ul> <li>14.6 Special precautions for user</li> <li>Hazard identification number (Kemler code):</li> </ul>	Warning: Oxidising substances. 58
<ul> <li>Hazchem Code:</li> <li>EMS Number:</li> <li>Stowage Category</li> <li>Handling Code</li> <li>Segregation Code</li> </ul>	1W F-A,S-Q B H1 Keep as dry as reasonably practicable SG38 Stow "separated from" SGG2-ammonium compounds. SG49 Stow "separated from" SGG6-cyanides SG60 Stow "separated from" SGG16-peroxides
• 14.7 Maritime transport in bulk according to IM instruments	IO Not applicable.
· Transport/Additional information:	11
<ul> <li>ADR/RID/ADN</li> <li>Limited quantities (LQ)</li> <li>Excepted quantities (EQ)</li> </ul>	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
<ul> <li>Transport category</li> <li>Tunnel restriction code</li> </ul>	2 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
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· UN "Model Regulation":

UN 3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1 (8), II, ENVIRONMENTALLY HAZARDOUS

## **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Poisons Act

- · Regulated explosives precursors Substance is not listed.
- · Regulated poisons Substance is not listed.
- · Reportable explosives precursors Substance is not listed.
- Reportable poisons Substance is not listed.

· Control Of Major Accident Hazards Regulations 2015 (COMAH)

- · Named dangerous substances ANNEX I Substance is not listed.
- · COMAH category
- **P8**
- E1
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **SECTION 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.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

#### · Training hints

This product should only be handled by workers who have received sufficient training in the safe handling and use of chemical products.

- · Department issuing SDS: Product safety department.
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

- IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic



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vPvB: very Persistent and very Bioaccumulative Ox. Sol. 3: Oxidizing solids – Category 3 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1B: Skin corrosion/irritation – Category 1B Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Skin Sens. 1: Skin sensitisation – Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 • **\* Data compared to the previous version altered.**