

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

### 1.1. Product identifier

|                          |   |
|--------------------------|---|
| <b>Name of product</b>   | Aquabrome / Aquabrome Tablets<br>539326         |
| <b>Name of substance</b> | Bromochloro-5,5-dimethylimidazolidine-2,4-dione |
| <b>EC No</b>             | 251-171-5                                       |
| <b>CAS No</b>            | 32718-18-6                                      |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended intended purpose(s)**

Product for disinfection and oxidation of pool water

### 1.3. Details of the supplier of the safety data sheet

|                                 |  |
|---------------------------------|--|
| <b>Manufacturer/distributor</b> | BAYROL Deutschland GmbH<br>Robert-Koch-Str. 4, D-82152 Planegg<br>Phone +49 (0) 89 85701-0 |
|---------------------------------|--|

### Advice

E-mail (competent person):  
ASchwarzenboeck@bayrol.eu

### 1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

| Hazard classes and Hazard categories | Hazard Statements | Classification procedure |
|--------------------------------------|-------------------|--------------------------|
|--------------------------------------|-------------------|--------------------------|

|                        |             |
|------------------------|-------------|
| <b>Acute Tox. 4</b>    | <b>H302</b> |
| <b>Skin Corr. 1B</b>   | <b>H314</b> |
| <b>Skin Sens. 1</b>    | <b>H317</b> |
| <b>Aquatic Acute 1</b> | <b>H400</b> |

### Hazard Statements

|      |  |
|------|--|
| H302 | Harmful if swallowed.                    |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction.     |
| H400 | Very toxic to aquatic life.              |

### 2.2. Label elements

**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**



GHS05



GHS07



GHS09

**! Signal word**

Danger

**Hazard Statements**

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.

**Precautionary Statements**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/eye protection.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazardous ingredients for labeling**

Bromochloro-5,5-dimethylimidazolidine-2,4-dione

**Supplemental Hazard information (EU)**

EUH031 Contact with acids liberates toxic gas.

**Special rules for supplemental label elements for certain mixtures**

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

**2.3. Other hazards**

**Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

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

**3.1. Substances**

CAS No 32718-18-6

Bromochloro-5,5-dimethylimidazolidine-2,4-dione

EC No 251-171-5

**3.2. Mixtures**

not applicable

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**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Remove contaminated clothing immediately and dispose it safely.  
Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.  
Adhere to personal protective measures when giving first aid.

**In case of inhalation**

Remove the casualty into fresh air and keep him immobile.  
Seek medical treatment immediately.

**In case of skin contact**

In case of contact with skin wash off immediately with plenty of water.  
Consult a doctor if skin irritation persists.

**In case of eye contact**

Rinse immediately with plenty of water for at least 15 minutes.  
Refer to medical treatment.

**In case of ingestion**

Do not induce vomiting.  
Call for a doctor immediately.  
Rinse out mouth and give plenty of water to drink.

**4.2. Most important symptoms and effects, both acute and delayed**

**Physician's information / possible dangers**

risk of strong eye injuries

**4.3. Indication of any immediate medical attention and special treatment needed**

**Treatment (Advice to doctor)**

Treat symptoms.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Large quantities of water  
Foam

**Unsuitable extinguishing media**

ABC powder  
carbon dioxide

**5.2. Special hazards arising from the substance or mixture**

In case of fire formation of dangerous gases possible.

In the event of fire the following can be released:

Hydrogen chloride (HCl)  
Hydrogen bromide (HBr)  
Chlorine (Cl<sub>2</sub>)

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.  
Wear full protective clothing.

**Additional information**

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Ensure adequate ventilation.  
Avoid dust formation.  
Use personal protective clothing.  
Keep away sources of ignition.  
Use breathing apparatus if exposed to vapours/dust/aerosol.

### 6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3. Methods and material for containment and cleaning up

Do not take up with sawdust or other combustible materials.  
Take up mechanically and send for disposal.

#### Additional Information

Neutralize active chlorine and active bromine with suitable materials (Sulphite, Thiosulphate or hydrogen peroxide aqueous solution)

### 6.4. Reference to other sections

Safe handling: see section 7  
Disposal: see section 13  
Personal protection equipment: see section 8  
Emergency telephone number: see section 1

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Take the usual precautions when handling with chemicals.

#### General protective measures

Avoid contact with eyes and skin  
Do not inhale dust.

#### Hygiene measures

At work do not eat, drink and smoke.  
Keep away from food and drink.  
Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking  
Keep at distance of acids, reducing agents and organic substances (e.g. wood, paper, fat).  
Avoid entering of water in shortage.

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

#### Requirements for storage rooms and vessels

Keep only in original container.

#### Advice on storage compatibility

Do not store together with food.

#### Further information on storage conditions

Keep container tightly closed.  
Keep container dry and store at cool and aired place.

#### Information on storage stability

Storage time: 5 years.

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**7.3. Specific end use(s)**

**Recommendation(s) for intended use**

See section 1.2

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

**8.1. Control parameters**

**8.2. Exposure controls**

**Respiratory protection**

In case of dust formation wear micro dust mask.

**Hand protection**

chemical-resistant gloves

Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)

Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness

Butyl rubber (butyl) - 0.7mm layer thickness

In view of the many different types, the manufacturers' directions for use must be followed

**Eye protection**

Safety goggles

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Appearance**

tablet

**Colour**

light yellow

**Odour**

typical, pungent

**Odour threshold**

not determined

**Important health, safety and environmental information**

|  | Value          | Temperature | at    | Method | Remark |
|--|----------------|-------------|-------|--------|--------|
| <b>pH value</b>                            | 4,5            | 20 °C       | 1 g/l |        |        |
| <b>Boiling temperature / boiling range</b> | not determined |             |       |        |        |
| <b>melting point</b>                       | 145-160 °C     |             |       |        |        |
| <b>Flash point</b>                         | not applicable |             |       |        |        |
| <b>Vapourisation rate</b>                  | not determined |             |       |        |        |
| <b>Flammable (solid)</b>                   | not determined |             |       |        |        |
| <b>Flammability (gas)</b>                  | not determined |             |       |        |        |
| <b>Ignition temperature</b>                | not determined |             |       |        |        |
| <b>Self ignition temperature</b>           | not determined |             |       |        |        |

|  | Value                     | Temperature | at | Method | Remark |
|--|---------------------------|-------------|----|--------|--------|
| <b>Lower explosion limit</b>                             | No information available. |             |    |        |        |
| <b>Upper explosion limit</b>                             | No information available. |             |    |        |        |
| <b>Vapour pressure</b>                                   | not determined            |             |    |        |        |
| <b>Relative density</b>                                  | 1,9 g/cm <sup>3</sup>     |             |    |        |        |
| <b>Vapour density</b>                                    | not determined            |             |    |        |        |
| <b>Solubility in water</b>                               | 1500 mg/l                 | 25 °C       |    |        |        |
| <b>Solubility/other</b>                                  | not determined            |             |    |        |        |
| <b>Partition coefficient n-octanol/water (log P O/W)</b> | not determined            |             |    |        |        |
| <b>Decomposition temperature</b>                         | not determined            |             |    |        |        |
| <b>Viscosity</b>   | not determined            |             |    |        |        |

**Oxidising properties**

No oxidiser ("GHS-Manual" 2. Kap. 2.14).

**Explosive properties**

No information available.

**9.2. Other information**

No information available.

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**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

Thermal decomposition can lead to the escape of irritating gases and vapours.

**10.2. Chemical stability**

No information available.

**10.3. Possibility of hazardous reactions**

Contact with acids liberates toxic gases.

**10.4. Conditions to avoid**

Reactions with combustible substances.

Reactions with acids.

**10.5. Incompatible materials**
**Substances to avoid**

Reactions with acids, alkalies and oxidising agents.

As oxidising agent, attacks organic substances such as wood, paper, fats.

**10.6. Hazardous decomposition products**

Hydrogen chloride (HCl)  
 Chlorine  
 Bromine  
 Hydrogen bromide

**SECTION 11: Toxicological information**
**11.1. Information on toxicological effects**
**Acute toxicity/Irritation/Sensitization**

|                          | Value/Validation | Species | Method | Remark |
|--------------------------|------------------|---------|--------|--------|
| <b>LD50 acute oral</b>   | 578 mg/kg        | rat     |        |        |
| <b>LD50 acute dermal</b> | > 2000 mg/kg     | rabbit  |        |        |
| <b>Skin irritation</b>   | corrosive        |         |        |        |
| <b>Eye irritation</b>    | corrosive        |         |        |        |

**Subacute Toxicity - Carcinogenicity**

|                              | Value                     | Species | Method | Validation |
|------------------------------|---------------------------|---------|--------|------------|
| <b>Mutagenicity</b>          | No information available. |         |        |            |
| <b>Reproduction-Toxicity</b> | No information available. |         |        |            |
| <b>Carcinogenicity</b>       | No information available. |         |        |            |

**Experiences made from practice**

Dust or formation of smoke irritates mucous membranes of respiratory tract.

**SECTION 12: Ecological information**
**12.1. Toxicity**
**Ecotoxicological effects**

|                | Value                 | Species       | Method | Validation |
|----------------|-----------------------|---------------|--------|------------|
| <b>Fish</b>    | LC50 0,87 mg/l (96 h) | rainbow trout |        |            |
| <b>Daphnia</b> | EC50 0,46 mg/l (48 h) | Daphnia magna |        |            |

**12.2. Persistence and degradability**

|                                 | Elimination rate | Method of analysis | Method | Validation         |
|---------------------------------|------------------|--------------------|--------|--------------------|
| <b>Biological degradability</b> |                  |                    |        | readily degradable |

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6. Other adverse effects**

**General regulation**

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste code No.**

16 05 09

**Name of waste**

discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**Recommendations for the product**

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

The product should not be allowed to enter drains, water courses or the soil.

**Recommendations for packaging**

Untampered packaging may be taken for recycling.

**Recommended cleansing agent**

Water

**SECTION 14: Transport information**

|   | ADR/RID  | IMDG   | IATA-DGR   |
|---|--|--|--|
| <b>14.1. UN number</b>                  | 3085   | 3085   | 3085   |
| <b>14.2. UN proper shipping name</b>    | OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione) | OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione) | Oxidizing solid, corrosive, n.o.s. (Bromochloro-5,5-dimethylimidazolidine-2,4-dione) |
| <b>14.3. Transport hazard class(es)</b> | 5.1 (8)  | 5.1 (8)  | 5.1 (8)  |
| <b>14.4. Packing group</b>              | II   | II   | II   |
| <b>14.5. Environmental hazards</b>      | Yes  | Yes  | Yes  |

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available.

**Land and inland navigation transport ADR/RID**

Hazard label(s) 5.1+8

tunnel restriction code E

Classification code OC2



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**Marine transport IMDG**  
MARINE POLLUTANT

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## SECTION 15: Regulatory information

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

**Other regulations (EU)**

Regulation (EU) 1272/2008 (CLP), Regulation (EU) 1907/2006 (REACH), DECISION 2000/532/EG (list of wastes)

Regulation (EU) 528/2012 (BPR)

**15.2. Chemical Safety Assessment**

For this substance a chemical safety assessment has not been carried out.

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## SECTION 16: Other information

**Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

**Further information**

Refer to product information paper.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 13.5

**Sources of key data used**

Results of own researches and examinations

Literature informations

Toxicity studies, NIOSH-Tox-Data

National legislation and regulation