

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

1.1. Product identifier

Name of product	Aquabrome 61006000
Name of substance	Bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione
EC No	251-171-5
CAS No	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

Manufacturer/distributor	BAYROL Deutschland GmbH Robert-Koch-Str. 4, D-82152 Planegg Phone +49 (0) 89 85701-0, Fax +49 (0) 89 85701-276 E-Mail bayrol@bayrol.de Internet www.bayrol.de
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Advice

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

1.4. Emergency telephone number

Emergency advice	Giftnotruf München (oder jedes andere Giftinformationszentrum) Phone +49 (0) 89 19240
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

Xn; R22
R31
C; R34
N; R50

R-phrases

22	Harmful if swallowed.
31	Contact with acids liberates toxic gas.
34	Causes burns.
50	Very toxic to aquatic organisms.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Acute Tox. 4	H302
Skin Corr. 1B	H314
Aquatic Acute 1	H400

Hazard Statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
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.
H400 Very toxic to aquatic life.

Precautionary Statements

P102 Keep out of reach of children.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and 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.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients for labeling

1-Bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione

Supplemental Hazard information (EU)

Contact with acids liberates toxic gas.

Special rules for supplemental label elements for certain mixtures

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.

SECTION 3: Composition/ information on ingredients**3.1. Substances**

CAS No 32718-18-6

EC No 251-171-5

Bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione

3.2. Mixtures

not applicable

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

Eye rinsing with water carefully while protecting unhurt eye.

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

No information available.

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

Treatment (Advice to doctor)

Treat symptoms.

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 (Cl₂)

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No information available.

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

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.

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

No information available.

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

No information available.

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	4,5	20 °C	1 g/l		
Boiling temperature / boiling range	No information available.				
melting point	145-160 °C				
Flash point	not applicable				
Vapourisation rate	No information available.				
Flammable (solid)	No information available.				
Flammability (gas)	No information available.				
Ignition temperature	No information available.				

	Value	Temperature	at	Method	Remark
Self ignition temperature	No information available.				
Lower explosion limit	No information available.				
Upper explosion limit	No information available.				
Vapour pressure	No information available.				
Relative density	1,9 g/cm ³				
Vapour density	No information available.				
Solubility in water	1500 mg/l	25 °C			
Solubility/other	No information available.				
Partition coefficient n-octanol/water (log P O/W)	No information available.				
Decomposition temperature	No information available.				
Viscosity	No information available.				
Oxidising properties	No information available.				
Explosive properties	No information available.				
9.2. Other information	No information available.				

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

Materials 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/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	578 mg/kg	rat		
LD50 acute dermal	> 2000 mg/kg	rabbit		
Irritability skin	corrosive			
Irritability eye	corrosive			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity	No information available.			
Reproduction-Toxicity	No information available.			
Carcinogenicity	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
Fish	LC50 0,87 mg/l (96 h)	rainbow trout		
Daphnia	EC50 0,46 mg/l (48 h)	Daphnia magna		

12.2. Persistence and degradability
Biological degradability

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****Recommendations for the product**

Remove in accordance with local official regulations.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

Recommendations for packaging

Uncontaminated packaging may be taken for recycling.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3085	3085	3085
14.2. UN proper shipping name	OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromo-chloro-5,5- dimethylhydantoin)	OXIDIZING SOLID, CORROSIVE, N.O.S. (Bromo- chloro-5,5-dimethylhydantoin)	Oxidizing solid, corrosive, n.o. s. (Bromo-chloro-5,5- dimethylhydantoin)
14.3. Transport hazard class(es)	5.1	5.1 (8)	5.1 (8)
14.4. Packing group	II	II	II
14.5. Environmental hazards	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

SECTION 15: Regulatory information

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

Other regulations (EU)

Please note:

Observe regulation 98/24/EC for employee health protection against the threat of chemical substances in the workplace.
Biocide directive (98/8/EC).

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Biozide sicher verwenden. Vor Gebrauch stets Kennzeichnung und Produktinformation lesen.

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: 8.2

Sources of key data used

Results of own researches and examinations

Literature informations

Toxicity studies, NIOSH-Tox-Data

National legislation and regulation