

**Safety data**

according to 1907/2006 / EC, Article 31

Printing date: 07.05.2018

Rev. Index: 28

Revision Date: 07.05.2018

**SECTION 1: Identification of the substance / the company****age and society /****1.1 Product identifier****Product name** hth™ BROMINE**Product code** 11500 hth**CAS #:**  
32718-18-6**EC number:**  
251-171-5**1.2 Relevant identified uses of the subs advised against tance or mixture and uses****Sector of use**

SU21 Consumer uses: Private households / general public / consumers

**Product category**PC37 Water treatment chemicals Biocidal  
PC8 products**Application of the substance / the preparation**Water treatment  
Water disinfectant**1.3 Information concerning the supplier of the safety data****Producer / supplier:**  
Arch Water Products France now part of LONZA  
SPECIALTY INGREDIENTS  
BP 219 - 37402 Amboise Cedex - FRANCE  
phone: +33 (0) 2 47 23 43 00  
fax: +33 (0) 2 47 23 12 21

framsds-reach.france.euwater@lonza.com

**1.4 Emergency telephone number:**

Europe &gt;&gt;&gt; NCEC - Tel. +44 (0) 1235 239 670

France - INRS - ORFILA number: 01 45 42 59 59

Switzerland - For all medical information, emergency number of Tox Info Suisse "145" (+41 44 251 51 51).

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Africa & Middle East >>> NCEC - Tel. +44 (0) 1235 239 671

N.AMERICA >>> ACEAN (Arch Chemicals Emergency Action Network) - Tel. +1 423 780 2970}

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



GHS03 flame above a circle

Ox. Ground. 2 H272 May intensify fire; oxidizer.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage. H318 Causes serious eye  
Eye Dam. 1 damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic organisms.  
Aquatic Chronic 1 H410 Very toxic to aquatic life with effects  
long-term detrimental effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

### 2.2 Label elements

#### Labeling according to regulation (EC) n° 1272/2008

The substance is classified and labeled according to the CLP regulation.

#### Hazard pictograms



GHS03 GHS05 GHS07 GHS09

**Signal word** Danger

#### Hazard-determining ingredients for labeling

bromochloro-5,5-dimethylimidazolidine-2,4-dione :

#### Hazard statements

H272 May intensify fire; oxidizer. H302

Harmful if swallowed.

H314 Causes severe skin burns and eye damage. H317 May cause an  
allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

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**Precautionary advice**

- P101 If medical advice is needed, keep the container or label at hand.
- P102 Keep out of the reach of children.
- P103 Read the label before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and all other sources of ignition. No smoking.
- P220 Keep away from clothing and other combustible materials.
- P260 Do not breathe dust / fume / gas / mist / vapors / spray. Wash hands thoroughly after handling.
- P264
- P270 Do not eat, drink or smoke when using this product. Avoid release into the environment.
- P273
- P280 Wear protective gloves / protective clothing / eye protection / face protection.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER / doctor if you feel unwell.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin with water [or shower].
- P304 + P340 IF INHALED: Move person to fresh air and keep in a position comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if the victim is wearing them and they can be easily removed. Continue to rinse. Immediately call a POISON CENTER / doctor.
- P310
- P333 + P313 If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.
- P363
- P370 + P378 In case of fire: Use for extinction: Water. Collect the spilled product.
- P391
- P405 Keep locked up.
- P501 Dispose of contents / container to a special treatment center in accordance with legal regulations.

**Additional indications:**

- EUH031 Contact with acids liberates toxic gas.
- EUH206 Attention! Do not use in combination with other products. May release dangerous gases (chlorine).

**2.3 Other dangers**

**Results of PBT and vPvB assessment**

- PBT: Not applicable.
- vPvB: Not applicable.

**SECTION 3: Composition / information on compounds                      ants**

**3.1 Chemical characterization: Substances**

**CAS No Description**

32718-18-6 bromochloro-5,5-dimethylimidazolidine-2,4-dione

**Identification code (s) EC**

number: 251-171-5

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**Hazardous components:** nothing

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

### **4.1 Description of first aid measures**

#### **General remarks:**

Bring subjects to fresh air

Immediately remove any clothing contaminated by the product.

Symptoms of poisoning may appear after only several hours; medical surveillance is therefore necessary at least 48 hours after an accident.

#### **after inhalation:**

Provide plenty of fresh air and consult a doctor to be on the safe side. If unconscious, lay and transport the person in a stable lateral position.

#### **after contact with the skin:**

Immediately wash with soap and water and rinse well. Wash off immediately with water.

#### **after contact with the eyes:**

Wash with water, holding the eyelids apart for several minutes (15) and consult a doctor.

#### **after ingestion:**

Seek immediate medical attention.

Give plenty of water to drink and provide fresh air. Seek immediate medical attention.

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

No further relevant information available. No

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

further relevant information available.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Extinguishing media:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight large foci with water spray.

Adapt the protective measures in fire fighting to the environment.

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

Formation of toxic gases in the event of heating or fire.

### **5.3 Advice for firefighters**

**Special protective equipment:** Wear respiratory protection.

**Other indications** Refresh hazardous packaging by spraying with water

## **SECTION 6: Measures to be taken in case of release accidental**

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

Wear respiratory protection.

Wear protective equipment. Keep unprotected people away.

### **6.2 Environmental protection precautions:**

Retain polluted washing water and dispose of it. Do not discharge into the sewer or into the natural environment.

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In case of entry into water or sewers, notify the competent authorities.  
Do not discharge into drains, runoff water or groundwater

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**6.3 Methods and material for containment and cleaning up:**

Use a neutralizer.

Dispose contaminated material as waste according to item 13. Ensure sufficient ventilation.

**6.4 Reference to other sections**

For information on safe handling, see chapter 7

For information on personal protective equipment, see chapter 8

For information on disposal, see chapter 13

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**s danger**

Dust off well.

Ensure good ventilation / exhaustion at the workplace.

**Handling :**



NEVER MIX WITH ANY OTHER PRODUCT NEVER DISSOLVE BEFORE USE

**Protection against fires and explosions:**

The material / product is a fire stimulant in the dry state

Material / product may lower ignition temperature of flammable substances. Wear respiratory protection.

**7.2 Conditions for safe storage, including vent**

**such incompatibilities**

**Storage:**

**Requirements for storage rooms and containers**

**ckage:**

Store only in the original, unopened drum.

**Notes on storage in one common storage facility:**

Store away from flammable materials. Store away from reducing agents. Store away from acids.

**Other information on storage conditions:**

Keep packaging hermetically sealed

**7.3 Specific end use (s)**

No further relevant information available.

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

**dividual**

**Additional information for the arrangement of i**

**technical installations:**

Without further indication, see point 7.

**8.1 Control parameters**

**Components with threshold values that require**

**r per workstation: nothing**

**monitoring Additional remarks:**

This document is based on the lists in effect at the time of its preparation.

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**8.2 Exposure controls Personal protective equipment: General protective and hygienic measures:**

Keep away from food, drink and animal feed. Immediately take off dirty or humid clothes.

Wash hands before breaks and at the end of work. Avoid contact with eyes and skin

**Respiratory protection:**

In case of low or short exposure, respirator filter; in case of intense or long-lasting exposure, use a breathing apparatus independent of the ambient air.

**Hand protection:**



Protective gloves.

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

Due to lack of testing no recommendation to the glove material can be given for the product / the preparation / the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Gloves material**

Nitrile rubber

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

**Penetration time of glove material**

> 480 min

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

**Eye protection:**



Tightly sealed protective goggles.

**SECTION 9: Physical and chemical properties**

**9.1 Information on physical and chemical properties essential imics**

**General information.**

**Aspect:**

<b>Form :</b>	Tablets
<b>Color :</b>	whitish
<b>Smell :</b>	characteristic
<b>Odor threshold:</b>	Not determined.

**pH value:** 3.6

**Condition change**

**Melting point:** 135 ° C

**Boiling point:** x ° C

**Flash point:** not applicable

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<b>Flammability (solid, gaseous):</b>	The product is not flammable.
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	160-170 ° C
<b>Self-ignition:</b>	Not determined.
<b>Danger of explosion:</b>	The product is not explosive.
<b>Explosion limits:</b>	
<b>lower:</b>	Not determined.
<b>upper:</b>	Not determined.
<b>Vapor pressure at 20 ° C:</b>	Not applicable hPa
<b>Density at 20 ° C:</b>	1.5 g / cm <sup>3</sup>
<b>Relative density:</b>	Not determined.
<b>Vapor density:</b>	Not applicable.
<b>Evaporation rate:</b>	Not applicable.
<b>Solubility in / Miscibility with water at 25 ° C:</b>	4 g / l
<b>Partition coefficient (n-octanol / water):</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not applicable.
<b>cinematic :</b>	Not applicable.
<b>Solids content:</b>	100.0%
<b>9.2 Other information</b>	No further relevant information available.

**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**

Reactions to strong oxidizing agents

Reacts with alcohols, amines, aqueous acids and alkalis Reactions in contact with combustible materials

**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:**

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

**10.6 Hazardous decomposition products:**

Halogenated hydrogen

Bromine

toxic gases / vapors

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity:**

Harmful if swallowed.

<b>LD / LC50 values decisive for the classification</b> not:	
<b>CAS: 32718-18-6 bromochloro-5,5-dimethylimidazolidin e-2,4-dione</b>	
Oral	LD50 1,500 mg / kg (rat)
Dermal LD50	> 2,000 mg / kg (rabbit)

**Primary irritant effect:  
on the skin:**

Causes severe skin burns and eye damage. Causes serious eye damage.

**Sensitization :**

Can cause skin allergy.

**CMR effects (carcinogenicity, mutagenicity and a reproduction)  
toxicity for germ cell mutagenicity**

Based on the available data, the classification criteria are not met. Based on the available data, the classification criteria are not met.

**Carcinogenicity**  
Based on the available data, the classification criteria are not met.

**Reproductive toxicity**  
Based on the available data, the classification criteria are not met.

**Specific target organ toxicity - unique exhibition**

Based on the available data, the classification criteria are not met. Based on the available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure**

Based on the available data, the classification criteria are not met.

**Aspiration hazard**

**SECTION 12: Ecological information**

**12.1 Toxicity**

<b>Aquatic toxicity:</b>		
<b>CAS: 32718-18-6 bromochloro-5,5-dimethylimidazolidin e-2,4-dione</b>		
Oral	LC50 - 96 hrs	0.46 mg / l (bluegill sunfish) 0.4 mg / l (rainbow trout)
	LC50 - 48 hrs (static) 0.75	mg / l (daphne magna) LD50 1.839 mg / kg (bobwhite quail)

**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.

**Ecotoxic effects:**

**Remark :** Very toxic to fish.

**Additional ecological information: General notes:**

Water pollution category 2 (D) (classification according to list): pollutant Do not allow to penetrate into ground water, water or drains.

Must not enter undiluted or unneutralized state into wastewater or collector.

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Danger to drinking water if a small quantity leaks into the basement. In water, also toxic to fish and plankton.

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Very toxic to aquatic organisms.

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

**we**

**13.1 Waste treatment methods**

**Recommendation:**

Must receive special treatment in accordance with legal requirements. Should not be disposed together with household waste. Do not allow to enter drains.

**Uncleaned packaging:**

**Recommendation :** Disposal according to official regulations.

**Recommended cleaning product:**

Water, possibly with the addition of cleaning products.

**SECTION 14: Transport information**

**14.1 UN number**

**ADR, IMDG, IATA**

UN3085

**14.2 UN proper shipping name ADR**

3085 OXIDIZING SOLID, CORROSIVE, NOS  
(bromochloro-5,5-dimethylimidazolidine-2,4-dione),  
HAZARDOUS FOR  
THE ENVIRONMENT

**IMDG**

OXIDIZING SOLID, CORROSIVE, (bromochloro-5,5-dimethylimidazolidine-2,4-dione), MARINE  
POLLUTANT

**IATA**

OXIDIZING SOLID, CORROSIVE, NOS  
(bromochloro-5,5-dimethylimidazolidine-2,4-dione)

**14.3 Danger class (es) for ADR transport**



**Class Label**

5.1 (OC2) Oxidizing materials.  
5.1 + 8

**IMDG**



**Class**

5.1 Oxidizing substances.

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**Label** 5.1 / 8

**IATA**



<p><b>Class</b> 5.1 Oxidizing substances. <b>Label</b> 5.1 (8) <b>14.4 Packing group ADR, IMDG, IATA</b> II <b>14.5 Environmental hazards: Marine pollutant:</b> Yes <b>Special marking (ADR):</b> Symbol (fish and tree) Symbol (fish and tree) <b>14.6 Special precautions to be taken by the user</b> Warning: Oxidizing materials. <b>Kemler index:</b> - <b>EMS No:</b> FA, SQ <b>Stowage Category</b> B <b>Handling Code</b> H1 Keep as dry as reasonably practicable SG38 Stow "separated from" ammonium compounds. <b>Segregation Code</b> SG49 Stow "separated from" cyanides SG60 Stow "separated from" peroxides</p>	
<p><b>14.7 Transport in bulk according to Annex II of the Marpol Convention and the IBC Code</b></p>	Not applicable.

**Additional transport information:**

<p><b>ADR</b> <b>Excepted quantities (EQ):</b> <b>Limited quantities (LQ)</b> <b>Excepted quantities (EQ)</b></p>	<p>E2 1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g</p>
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<p><b>Transport category</b> <b>Tunnel restriction code</b></p>	<p>2 E</p>
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<p><b>IMDG</b> <b>Limited quantities (LQ)</b> <b>Excepted quantities (EQ)</b></p>	<p>1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g</p>
<p><b>UN "Model Regulations":</b></p>	<p>UN 3085 OXIDIZING SOLID, CORROSIVE, N. S. AT . (BROMOCHLORO - 5, 5 - DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1 (8), II, DANGEROUS FOR THE ENVIRONMENT</p>

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### SECTION 15: Regulatory information

tion

#### REGULATION (EU) No 528/2012

Best before: see date on packaging

After rinsing in swimming pool water, this packaging can be handed over to the recycling industry.

#### 15.1 Regulations / legislation specific to safety, health and the environment **substance or mixture in**

Directive 2012/18 / EU

Designated hazardous substances - APPENDIX I substance is not understood

#### SEVESO Category

P8 OXIDIZING LIQUIDS AND SOLIDS E1

Hazardous to the aquatic environment

Threshold quantity (tonnes) for the application of the requirements Ences relating to the low threshold 50 t

Threshold quantity (tonnes) for the application of the requirements Ences relating to the high threshold 200 t

#### National regulations:

#### Technical guidelines air:

Class	Share in%
I	100.0

#### Water pollution class:

Water hazard class 2 (classification according to list) (water pollution class 2): pollutant

#### Other regulations, restrictions and regulations prohibition

ICPE section (s) concerned: 4440

#### 15.2 Chemical safety assessment:

A chemical safety assessment has not been carried out.

### SECTION 16: Other information

These indications are based on the current state of our knowledge, but do not constitute a guarantee as to the properties of the product and do not give rise to a contractual legal relationship.

#### Information relating to Detergents Regulation 648 / 2004 / EC

This product is not a detergent it is a disinfectant (biocide)

#### Acronyms and abbreviations:

RID: International regulations concerning the transport of dangerous goods by rail ICAO: International Civil Aviation Organization

ADR: European Agreement on the Transport of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified 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 vPvB: very

Persistent and very Bioaccumulative Ox. Ground. 2:

Oxidizing solids - Category 2 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

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Skin Sens. 1: Skin sensitization - Category 1

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Aquatic Acute 1: Hazards for the aquatic environment - acute toxicity to the aquatic environment - Category 1 Aquatic

Chronic 1: Hazards to the aquatic environment - long-term toxicity to the aquatic environment - Category 1

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