

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.02.2019

Rev. Index : 29

Revision: 11.02.2019

**SECTION 1: Identification of the substance/mixture and of the company/
undertaking****1.1 Product identifier****Trade name: Fi-CLOR™ SPA BROMINE TABLETS****Article number:** 11500UK FiClor 2**CAS Number:**

32718-18-6

EC number:

251-171-5

1.2 Relevant identified uses of the substance or mixture and uses advised against**Sector of Use** SU21 Consumer uses: Private households / general public / consumers**Product category**

PC37 Water treatment chemicals

PC8 Biocidal products

Application of the substance / the mixture

Water treatment

Water disinfectant

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

Arch Chemicals Ltd now part of

LONZA SPECIALTY INGREDIENTS

Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND

Telephone: + 44 (0) 1977 714 100

Fax: + 44 (0) 870 889 5277

framsds-reach.france.euwater@lonza.com

1.4 Emergency telephone number:

Europe >>> NCEC - Tel. +44 (0)1235 239 670

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

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

(Contd. on page 2)

GB

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 1)

CALL A LOCAL NATIONAL POISON CONTROL UNIT
FOR UK CONTACT NCEC Tel 01865 407 333

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

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

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.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

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.

(Contd. on page 3)

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 2)

P310 Immediately call a POISON CENTER/doctor.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P321 Specific treatment (see on this label).
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/container to special treatment scheme according to official regulations.

Additional information:

EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.1 Chemical characterisation: Substances****CAS No. Description:**

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

Identification number(s):

EC number: 251-171-5

Dangerous components: Void

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

Take affected persons out into the fresh air.

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 and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact

Rinse opened eye for several minutes (15) under running water. Then consult a doctor.

After swallowing

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

(Contd. on page 4)

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 3)

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

CO₂, powder or water spray. Fight larger fires with water spray.
Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters

Protective equipment: Mount respiratory protective device.

Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Keep contaminated washing water and dispose of appropriately.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Handling



DO NOT MIX WITH OTHER PRODUCTS
DO NOT DISSOLVE BEFORE USE

Information about fire - and explosion protection:

Substance/product is oxidising when dry.

Substance/product can reduce the ignition temperature of flammable substances.

Keep respiratory protective device available.

(Contd. on page 5)

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 4)

7.2 Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and receptacles:**

Store only in unopened original receptacles.

Information about storage in one common storage facility:

Store away from flammable substances.

Store away from reducing agents.

Do not store together with acids.

Further information about storage conditions: Keep receptacle tightly sealed.**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**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****Personal protective equipment****General protective and hygienic measures**

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.

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.

Protection of hands:

Protective gloves.

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

Due to missing tests 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

Material of gloves

Nitrile rubber, NBR

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

> 480 min

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

(Contd. on page 6)

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

Eye protection:

(Contd. of page 5)



Tightly sealed goggles.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Tablets
Colour:	Whitish
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	3.6

Change in condition

Melting point/freezing point:	135 °C
Initial boiling point and boiling range:	x °C

Flash point: Not applicable**Flammability (solid, gaseous)** Product is not flammable.**Decomposition temperature:** 160-170 °C**Auto-ignition temperature:** Not determined.**Explosive properties:** Product does not present an explosion hazard.**Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 20 °C: Non applicable hPa**Density at 20 °C:** 1.5 g/cm³**Relative density** Not determined.**Vapour density** Not applicable.**Evaporation rate** Not applicable.**Solubility in / Miscibility with****Water at 25 °C:** 4 g/l**Partition coefficient: n-octanol/water:** Not determined.**Viscosity:**

dynamic:	Not applicable.
kinematic:	Not applicable.

Solids content: 100.0 %**9.2 Other information** No further relevant information available.

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 6)

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

Reacts with strong oxidizing agents

Reacts with alcohols, amines, aqueous acids and alkalis

Reacts with flammable substances

10.4 Conditions to avoid No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:**

Hydrohalogens

Bromine

Poisonous gases/vapours

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

LD/LC50 values relevant for classification:**CAS: 32718-18-6 bromochloro-5,5-dimethylimidazolidine-2,4-dione**

Oral | LD50 | 1,500 mg/kg (rat)

Dermal | LD50 | >2,000 mg/kg (rabbit)

Primary irritant effect:**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**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.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:****CAS: 32718-18-6 bromochloro-5,5-dimethylimidazolidine-2,4-dione**

Oral | LC50 - 96 hrs | 0.46 mg/l (bluegill sunfish)

0.4 mg/l (rainbow trout)

LC50 - 48 hrs (static) | 0.75 mg/l (daphnia magna)

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.02.2019

Rev. Index : 29

Revision: 11.02.2019

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 7)

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.**Ecotoxicological effects:****Remark:** Very toxic for fish**Additional ecological information:****General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

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

Danger to drinking water if even small quantities leak into the ground.

Very toxic for 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****13.1 Waste treatment methods****Recommendation**

Must be specially treated adhering to official regulations.

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

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information****14.1 UN-Number**

ADR, IMDG, IATA

UN3085

14.2 UN proper shipping name

ADR

3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (bromochloro-5,5-dimethylimidazolidine-2,4-dione), ENVIRONMENTALLY HAZARDOUS OXIDIZING SOLID, CORROSIVE, N.O.S., MARINE POLLUTANT OXIDIZING SOLID, CORROSIVE, N.O.S.

IMDG

IATA

14.3 Transport hazard class(es)

ADR

**Class**

5.1 (OC2) Oxidising substances.

(Contd. on page 9)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.02.2019

Rev. Index : 29

Revision: 11.02.2019

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

(Contd. of page 8)

Label 5.1+8

IMDG

Class 5.1 Oxidising substances.
Label 5.1/8

IATA

Class 5.1 Oxidising substances.
Label 5.1 (8)

14.4 Packing group
ADR, IMDG, IATA

III

14.5 Environmental hazards:
Marine pollutant:

Yes

Special marking (ADR):
14.6 Special precautions for user
Danger code (Kemler):

Symbol (fish and tree)
Symbol (fish and tree)
Warning: Oxidising substances.

EMS Number:
Stowage Category
Handling Code
Segregation Code

50

F-A,S-Q

B

H1 Keep as dry as reasonably practicable
SG36 Stow "separated from" alkalis.
SG49 Stow "separated from" cyanides
SG60 Stow "separated from" peroxides

14.7 Transport in bulk according to Annex II of
Marpol and the IBC Code

Not applicable.

Transport/Additional information:**ADR**

Limited quantities (LQ)
Excepted quantities (EQ)

5 kg

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging:

1000 g

Transport category

3

Tunnel restriction code

E

IMDG

Limited quantities (LQ)
Excepted quantities (EQ)

5 kg

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging:

1000 g

(Contd. on page 10)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.02.2019

Rev. Index : 29

Revision: 11.02.2019

Trade name: Fi-CLOR™ SPA BROMINE TABLETS

UN "Model Regulation":

(Contd. of page 9)

UN 3085 OXIDIZING SOLID, CORROSIVE,
N . O . S . (B R O M O C H L O R O - 5 , 5 -
DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1
(8), III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

REGULATION (EU) No 528/2012

Best before : see date on packaging

Providing this container when empty is thoroughly rinsed out in the pool, it may be disposed of via the recycling scheme

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category E1 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

National regulations

Technical instructions (air):

Class	Share in %
I	100.0

Waterhazard class: Water hazard class 2 (Assessment by list): hazardous for water.

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.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport 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

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

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1