

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)

0130AZE-ASTRAL Bromine Tablets

Version: 2
Revision date: 01/03/2019

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: ASTRAL Bromine Tablets
Product Code: 0130AZE
Chemical Name: bromochloro-5,5-dimethylimidazolidine-2,4-dione
CAS No: 32718-18-6
EC No: 251-171-5

1.2 Relevant identified uses of the substance and uses advised against.

Desinfectant for pool water.

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **FLUIDRA COMMERCIAL, S.A.U.**
Address: Avda. Francesc Macià, 60, 20^a planta
City: 08208 Sabadell (Barcelona) Spain
Province: Barcelona
Telephone: Tel:34 93 724 39 00 Fax:34 93 724 29 93
Fax: +34 93 713 41 11
E-mail: fds@inquire.com
Web: www.astralpool.com

1.4 Emergency telephone number:

Anti poisoning centre:

ITALY (Rome): 06/305 43 43

ITALY (Milan): 02/66 10 10 29

SPAIN: +34 91 562 04 20

FRANCE (Paris): 01 40 05 48 48 FRANCE (Toulouse): 05 61 77 74 47 FRANCE (Marseille): 04 91 75 25 25

PORTUGAL: 808 250 143

BELGIQUE (Brussel): (+34) 070 245 245

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.

In accordance with Regulation (EU) No 1272/2008:

Acute Tox. 4 : Harmful if swallowed.

Aquatic Acute 1 : Very toxic to aquatic life.

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

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

Ox. Sol. 2 : May intensify fire; oxidiser.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Danger

H statements:

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H272	May intensify fire; oxidiser.
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.

P statements:

P102	Keep out of reach of children.
P405	Store locked up.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P270	Do not eat, drink or smoke when using this product.
P261	Avoid breathing dust.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate extinguishing products.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with applicable regulations.

EUH statements:

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

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

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Chemical Name:	bromochloro-5,5-dimethylimidazolidine-2,4-dione
CAS No:	32718-18-6
EC No:	251-171-5

3.2 Mixtures.

Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners. The use of personal protective equipment is recommended for people providing first aid (see section 8).

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

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Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

Harmful Product, prolonged exposure due to inhalation may cause anaesthetic effects and the need for immediate medical assistance.

It may cause an allergic reaction, dermatitis, redness or inflammation of the skin.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Do not induce vomiting. If the person vomits, clear the respiratory tract.

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance.

Special risks.

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Product residues and extinguishing media may contaminate the aquatic environment.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

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Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers at room temperature, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorized persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Classification and threshold amount of storage in accordance with Annex I to Directive 2012/18/EU (SEVESO III):

Code	Description	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
P8	OXIDISING LIQUIDS AND SOLIDS	50	200
E1	ENVIRONMENTAL HAZARDS - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200

7.3 Specific end use(s).

None in particular.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %		
Uses:	Desinfectant for pool water.		
Breathing protection:			
PPE:	Filter mask for protection against gases and particles.		
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.		
CEN standards:	EN 136, EN 140, EN 405		
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.		
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.		
Filter Type needed:	A2		
Hand protection:			
PPE:	Protective gloves against chemicals.		
Characteristics:	«CE» marking, category III.		
CEN standards:	EN 374-1, EN 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	Neoprene	Breakthrough time (min.): > 480	Material thickness (mm):
Eye protection:			
PPE:	Protective goggles against particle impacts.		
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.		

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Observations: Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.

Skin protection:

PPE: Protective clothing.
Characteristics: «CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.
CEN standards: EN 340
Maintenance: In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.
Observations: The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.

PPE: Work footwear.
Characteristics: «CE» marking, category II.
CEN standards: EN ISO 13287, EN 20347
Maintenance: This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations: Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Tablets
Colour: White
Odour: Slightly halogen odour
Odour threshold: N.A./N.A.
pH: 3- 5 (1%)
Melting point: 156 - 163 °C
Boiling Point: 228 °C
Flash point: 95 °C
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density: N.A./N.A.
Relative density: 1.8 - 2.0 g/cm³
Solubility: 0.15g / 100 cm³
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: Si

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

If the storage conditions are satisfied, does not produce dangerous reactions.

10.2 Chemical stability.

Unstable in contact with:

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- Bases.

10.3 Possibility of hazardous reactions.

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

May intensify fire; oxidiser.

Neutralization can occur on contact with bases.

10.4 Conditions to avoid.

Avoid the following conditions:

- Contact with incompatible materials.
- Avoid contact with bases.

10.5 Incompatible materials.

Avoid the following materials:

- Bases.
- Flammable materials.
- Explosives materials.
- Toxic materials.
- Corrosive materials.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated the following products:

- Oxygen.
- Corrosive vapors or gases.
- Oxidizing gases or vapors.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Toxicological information.

Name	Acute toxicity			
	Type	Test	Kind	Value
bromochloro-5,5-dimethylimidazolidine-2,4-dione	Oral	LD50	Rat	485 mg/kg [1]
		[1] FIFRA		
	Dermal	LD50	Rat	> 2000 mg/kg
CAS No: 32718-18-6 EC No: 251-171-5	Inhalation			

a) acute toxicity;

Product classified:

Acute toxicity (Oral), Category 4: Harmful if swallowed.

b) skin corrosion/irritation;

Product classified:

Skin Corrosive, Category 1B: Causes severe skin burns and eye damage.

c) serious eye damage/irritation;

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

d) respiratory or skin sensitisation;

Product classified:

Skin sensitiser, Category 1: May cause an allergic skin reaction.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

g) reproductive toxicity;

Not conclusive data for classification.

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h) STOT-single exposure;
Not conclusive data for classification.

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

There is no information available on the biodegradability of the substances present.

12.2 Persistence and degradability.

There is no information available on the degradability of the substances present. No information is available regarding the degradability. No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation.

12.4 Mobility in soil.

No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

Sea: Transport by ship: IMDG.

Transport documentation: Bill of lading

Air: Transport by plane: ICAO/IATA.

Transport document: Airway bill.

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14.1 UN number.

UN No: UN3085

14.2 UN proper shipping name.

Description:

ADR: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1 (8), PG III, (E)

IMDG: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1 (8), PG III, MARINE POLLUTANT

ICAO/IATA: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE), 5.1 (8), PG III

14.3 Transport hazard class(es).

Class(es): 5.1

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: Yes



Dangerous for the environment

14.6 Special precautions for user.

Labels: 5.1, 8



Hazard number: 58

ADR LQ: 5 kg

IMDG LQ: 5 kg

ICAO LQ: 5 kg

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-A,S-Q

Proceed in accordance with point 6.

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

The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): P8,E1

Information related to Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products:

Product Type	Group
Disinfectants and algacides not intended for direct application to humans or animals	Disinfectants

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Active substances	Concentration %
bromochloro-5,5-dimethylimidazolidine-2,4-dione CAS No: 32718-18-6 EC No: 251-171-5	80 - 100

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Kind of pollutant to water (Germany): WGK 2: Hazardous to water. (Autoclassified according to the AwSV Regulations)

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Classification codes:

Acute Tox. 4 : Acute toxicity (Oral), Category 4
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Eye Dam. 1 : Serious eye damage, Category 1
Ox. Sol. 2 : Oxidising solid, Category 2
Skin Corr. 1B : Skin Corrosive, Category 1B
Skin Sens. 1 : Skin sensitiser, Category 1

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AwSV: Facility Regulations for handling substances that are hazardous for the water.
CEN: European Committee for Standardization.
PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.
WGK: Water hazard classes.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.