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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 1 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

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

1.1 Product identifier.

Product Name: ASTRAL Hivernage without copper

Product Code: 0551AZ

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

Algaecide

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, 20ª 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@inquide.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

ITALY (Milan): 02/66 10 10 29 SPAIN: +34 91 562 04 20

FRANCE (Paris): 01 40 05 48 48 FRANCE (Tolousse): 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 mixture.

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

Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects.

2.2 Label elements.

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

Pictograms:



Signal Word: **Warning**

H statements:

H410 Very toxic to aquatic life with long lasting effects.

P 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.

P273 Avoid release to the environment.

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 2 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

P391 Collect spillage.

P501 Dispose of contents/container in accordance with applicable regulations.

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.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

				(*)Classification - Regulation (EC) No 1272/2008	
Identifiers	Name	Concentrate	Classification	specific concentration limit	
CAS No: 25988-97-0	polyalkyl quaternary ammonium	2.5 - 25 %	Acute Tox. 4, H302 - Aquatic Acute 1, H400 - Aquatic Chronic 1, H410 (M=10)	-	

^(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

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.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

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

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

No known acute or delayed effects from exposure to the product.

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.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 3 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

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 mixture.

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.

Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate decontaminator. 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.

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-authorised 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):

		Qualifying quantity (tonnes) for the application of	
Code	Description	Lower-tier requirements	Upper-tier requirements

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 4 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

E1	ENVIRONMENTAL HAZARDS - Hazardous to the Aquatic Environment in	100	200
C1	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:	Algaecide			
Breathing protect	ion:			
PPE:	Particle filter mask			
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.			
CEN standards:	EN 149			
Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.			
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.			
Filter Type needed:	P2			
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:	PVC (polyvinyl chloride) Breakthrough time (min.): Material thickness (mm): 0,35			
Eye protection:				
PPE:	Protective goggles with built-in frame.			
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.			
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.			
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.			
Skin protection:				
PPE:	Chemical protective clothing «CE» marking, category III. Clothing should fit properly. The level of protection			
Characteristics:	must be set according to a test parameter called BT (Breakthrough Time), which indicates how long it takes for the chemical to pass through the material.			
CEN standards:	EN 464,EN 340, EN 943-1, EN 943-2, EN ISO 6529, EN ISO 6530, EN 13034			
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.			
Observations:	The protective clothing's design should facilitate correct positioning, staying in place without moving for the period of use expected, bearing in mind environmental factors as well as any movement or position the user might adopt while carrying out the activity.			
PPE:	Work footwear.			
Characteristics:	«CE» marking, category II.			

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



0551AZ-ASTRAL Hivernage without copper

Version: 2 Page 5 of 9 Revision date: 10/02/2020 Print date: 10/02/2020

CEN standards: EN ISO 13287, EN 20347

This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should Maintenance:

not be used by other people.

Work footwear for professional use includes protection elements aimed at protecting users against any Observations:

injury resulting from an accident

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance:Liquid Colour: Dark blue

Odour:Charateristic (organic) Odour threshold: N.A./N.A. pH:5.3 - 8.8 (20 °C) Melting point: N.A./N.A. Boiling Point: >100 °C Flash point: N.A./N.A. 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: 23,425 Vapour density: N.A./N.A.

Relative density: 1.00 - 1.04 g/cm³

Solubility: N.A./N.A. 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: No aplicable

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.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Unstable in contact with:

- Bases.

10.3 Possibility of hazardous reactions.

Neutralization can occur on contact with bases.

10.4 Conditions to avoid.

- Avoid contact with bases.

10.5 Incompatible materials.

Avoid the following materials:

- Bases.

10.6 Hazardous decomposition products.

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

- Corrosive vapors or gases.

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 6 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

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.

Splatters in the eyes can cause irritation and reversible damage.

Toxicological information about the substances present in the composition.

Namo	Acute toxicity			
Name	Туре	Test	Kind	Value
	Oral	LD50	Rat	1672 mg/kg
polyalkyl quaternary ammonium	Dermal	LD50	Rabbit	>2000 mg/kg
CAS No: 25988-97-0 EC No:	Inhalation			

a) acute toxicity;

Not conclusive data for classification.

Acute Toxicity Estimate (ATE):

Mixtures:

ATE (Dermal) = 28.571 mg/kg

ATE (Oral) = 7.143 mg/kg

b) skin corrosion/irritation;

Not conclusive data for classification.

- c) serious eye damage/irritation; Not conclusive data for classification.
- d) respiratory or skin sensitisation; Not conclusive data for classification.
- e) germ cell mutagenicity; Not conclusive data for classification.
- f) carcinogenicity; Not conclusive data for classification.
- g) reproductive toxicity; Not conclusive data for classification.
- 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.

Name		Ecotoxicity			
Name	Туре	Test	Kind	Value	
polyalkyl guaternary ammonium	Fish	LC50	Fish	0.077 mg/l (96 h) [1]	

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 7 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

			[1] OECE) TG	
		Aquatic invertebrates	EC50	Daphnia O TG	0.084 mg/l (48 h) [1]
CAS No: 25988-97-0	EC No:	Aquatic plants	EC50 [1] OECD	Algae O TG 201	0.09 mg/l (72 h) [1]

12.2 Persistence and degradability.

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

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

12.3 Bioaccumulative potencial.

No information is available regarding the bioaccumulation of the substances present.

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

<u>Sea</u>: Transport by ship: IMDG. Transport documentation: Bill of lading <u>Air</u>: Transport by plane: ICAO/IATA. Transport document: Airway bill.

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 8 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

14.1 UN number. UN No: UN3082

14.2 UN proper shipping name.

Description:

ADR: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS POLYALKYL QUATERNARY

AMMONIUM), 9, PG III, (-)

IMDG: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS POLYALKYL QUATERNARY

AMMONIUM), 9, PG III, MARINE POLLUTANT

ICAO/IATA: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS POLYALKYL

QUATERNARY AMMONIUM), 9, PG III

14.3 Transport hazard class(es).

Class(es): 9

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: 9



Hazard number: 90 ADR LQ: 5 L IMDG LQ: 5 L ICAO LQ: 30 kg B

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-F

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 mixture.

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): 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 algaecides not intended for direct application to humans or animals	Disinfectants

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



0551AZ-ASTRAL Hivernage without copper

 Version: 2
 Page 9 of 9

 Revision date: 10/02/2020
 Print date: 10/02/2020

Active substances	Concentration %
polyalkyl quaternary ammonium	2 5 25
CAS No: 25988-97-0	2.5 - 25

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.

Complete text of the H phrases that appear in section 3:

H302 Harmful if swallowed. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 4: Acute toxicity (Oral), Category 4

Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1 Aquatic Chronic 1 : Chronic effect to the aquatic environment, 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.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.

IMDG: International Maritime Code for Dangerous Goods.

LC50: Lethal concentration, 50%.

LD50: Lethal dose, 50%.

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.