

# SAFETY DATA SHEET

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

## ASTRAL Algaecide + descaler with electrolysis



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

#### 1.1 Product identifier.

Product Name: ASTRAL Algaecide + descaler with electrolysis

#### 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, 20<sup>a</sup> planta  
City: 08208 Sabadell  
Province: (Barcelona) Spain  
Telephone: Tel: +34 93 724 39 00  
Fax: Fax: +34 93 724 29 93  
E-mail: clientes@fluidra.es  
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

### 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:

P102 Keep out of reach of children.  
P273 Avoid release to the environment.

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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:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	specific concentration limit
CAS No: 25988-97-0	N,N-Dimethyl-2-hydroxypropylammonium chloride polymer	2.5 - 25 %	Acute Tox. 4, H302 - Aquatic Acute 1, H400 - Aquatic Chronic 1, H410	-

(\*) 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. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

#### Eye contact.

If wearing contact lenses, remove them. 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.

### 5.1 Extinguishing media.

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### Recommended extinguishing methods.

Extinguisher powder or CO<sub>2</sub>. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

### **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.

#### 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 gloves.

## 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 between 5 and 35° C, 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
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.

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### 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.

<b>Concentration:</b>	<b>100 %</b>		
<b>Uses:</b>	<b>Algaecide</b>		
<b>Breathing protection:</b>			
If the recommended technical measures are observed, no individual protection equipment is necessary.			
<b>Hand protection:</b>			
PPE:	Work gloves.		
Characteristics:	«CE» marking, category I.		
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.):	> 480
		Material thickness (mm):	0,35
<b>Eye protection:</b>			
If the product is handled correctly, no individual protection equipment is necessary.			
<b>Skin protection:</b>			
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: Liquid  
Colour: Dark blue  
Odour: Characteristic (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: N.A./N.A.  
Vapour density: N.A./N.A.  
Relative density: 1.00 - 1.04 g/cm<sup>3</sup>  
Solubility: N.A./N.A.  
Liposolubility: N.A./N.A.  
Hydrosolubility: Miscible  
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.

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Explosive properties: N.A./N.A.  
Oxidizing properties: No applicable

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.

## 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.

Name	Acute toxicity			
	Type	Test	Kind	Value
N,N-Dimethyl-2-hydroxypropylammonium chloride polymer	Oral	LD50	rata	1672 mg/kg
	Dermal	LD50	Rabbit	>2000 mg/kg
	Inhalation			
CAS No: 25988-97-0    EC No:				

a) acute toxicity;

Not conclusive data for classification.

Acute Toxicity Estimate (ATE):

Mixtures:

ATE (Oral) = 7.125 mg/kg

b) skin corrosion/irritation;

Not conclusive data for classification.

c) serious eye damage/irritation;

Not conclusive data for classification.

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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			
	Type	Test	Kind	Value
N,N-Dimethyl-2-hydroxypropylammonium chloride polymer  CAS No: 25988-97-0    EC No:	Fish	LC50	Fish	0.077 mg/l (96 h) [1]
		[1] OECD TG		
	Aquatic invertebrates	EC50	Daphnia	0.084 mg/l (48 h) [1]
		[1] OECD TG		
	Aquatic plants	EC50	Algae	0.09 mg/l (72 h) [1]
		[1] OECD TG 201		

#### 12.2 Persistence and degradability.

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.

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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.

#### 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 N,N-DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER), 9, PG III, (E)

IMDG: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS N,N-DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER), 9, PG III, MARINE POLLUTANT

ICAO: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS N,N-DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER), 9, PG III

#### 14.3 Transport hazard class(es).

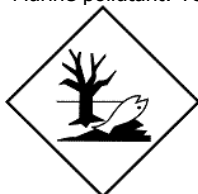
Class(es): 9

#### 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.

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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 12/18/EU (SEVESO III): E1

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

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

#### 15.2 Chemical safety assessment.

There has been no evaluation a chemical safety assessment of the product.

### 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 [Oral] : 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.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
25988-97-0	N,N-Dimethyl-2-hydroxypropylammonium chloride polymer	Registered

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

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.

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.

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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.