OXYGON

SWIMMING POOL · WATER TREATMENT · HEATING · COOLING



OXYGON Λαμπρυντικό Πισίνας

Pool Brightener

Operation & Use Manual

Oxygon codes: 111.10.10-10lt | 111.10.10-20lt

Scan for pool chemicals

www.oxygon.gr

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1. Safety Warnings

Read these instructions carefully before every use of OXYGON Pool Brightener. The product is **corrosive** and **toxic to aquatic organisms**, and is intended **exclusively for professional users**. Always consult the label and the Safety Data Sheet (SDS) before application.

DANGER — CORROSIVE

Causes severe skin burns and eye damage (H314). Causes serious eye damage (H318). Contact with the eyes may cause irreversible injury. ALWAYS wear protective gloves, goggles/face protection and suitable clothing when handling.

TOXIC TO THE AQUATIC ENVIRONMENT

Very toxic to aquatic life (H400), toxic with long lasting effects (H411). NEVER discharge the product or rinse water into sewers, streams, lakes or onto the ground. Avoid release to the environment (P273). See Section 12.

DO NOT MIX WITH OTHER CHEMICALS

NEVER mix the product directly with chlorine, sodium hypochlorite or other oxidising agents. The active ingredient is **cationic** and is neutralised by anionic products (e.g. certain flocculants and detergents), losing its effect. Each chemical is added separately to the pool water.

FOAMING HAZARD

The product contains a surface-active compound. Overdosing, or pouring at a point of strong turbulence (e.g. in front of a return inlet), causes persistent foam on the water surface. Observe the dosage in Section 5.

DO NOT BREATHE SPRAY

Do not breathe spray or mist (P260). Ensure adequate ventilation in the storage and application area. In enclosed plant rooms use local extraction.

Required Personal Protective Equipment (PPE)

Hands	Chemical-resistant gloves (EN ISO 374)
Eyes	Protective goggles with integral side shields (EN 166)
Body	Protective clothing against chemicals (EN 13034)
Feet	Chemical-resistant safety footwear (EN ISO 20345)
Respiratory	Mask with type A2 filter, only where ventilation is inadequate (EN 140/405)

Note: The product has a child-resistant closure and a tactile warning triangle. Keep out of reach of children (P102). For warranty terms see Section 13.

2. Product Description

OXYGON Pool Brightener is a liquid product based on quaternary ammonium compounds, formulated to restore water clarity.

It is used as part of routine weekly maintenance, and **correctively** whenever the water appears cloudy or has lost its sparkle. The brightener **does not disinfect** and does not replace chlorine; correct water balance and adequate filtration remain essential.

Field of application

- Private and public swimming pools
- Hotel pools and spa installations
- Pools with high bather load (turbidity from organic residues)
- Pools with sand filters, where fine particles pass through the filter medium
- Pools in areas with dust, pollen or heavy atmospheric deposition

Available packaging

Oxygon codes	111.10.10-10lt · 111.10.10-20lt
Packaging	Plastic container 10 L and 20 L
Trade name	OXYGON Pool Brightener
Category	Water clarifier

Note: The Technical Data Sheet also lists 1 L and 5 L packs. According to the 2026 Chemicals Price List, the 10 L and 20 L packs are the ones currently available. Contact the sales department for availability.

3. When It Is Needed — Identifying the Problem

Cloudy water can have different causes. The brightener effectively addresses only some of them; correct diagnosis prevents unnecessary use.

Indication	Probable cause	Is brightener indicated?
Milky, dull appearance with normal chlorine	Fine suspended particles passing through the filter	Yes — the typical application case
Water lost its sparkle after heavy use	Organic load from bathers (oils, sunscreen)	Yes, together with a chlorine check
Turbidity after rain or a dust storm	Atmospheric deposition, dust, pollen	Yes
Turbidity after algae treatment	Dead algae in suspension	Yes, once algaecide treatment is complete
Green water with visible algae growth	Active algae colonisation	No — algaecide and chlorination are required first
Brown or rust discolouration, stains on surfaces	Metals (iron, copper, manganese)	No — a sequestrant is required (Mineral Protect)
Whitish turbidity with very high hardness	Calcium salt precipitation	No — water balance adjustment is required

Before each application, check that the **pH is within 7.2 – 7.6** and that residual chlorine is adequate. In unbalanced water the brightener does not perform and turbidity returns.

Filter check: Before attributing turbidity to the water, confirm that the filter is working correctly and that the circulation time is adequate for the pool volume. A clogged or undersized filter cannot be compensated for with chemicals.

4. Technical Characteristics

Form	Liquid
Colour	Blue
Odour	Odourless
pH (as supplied)	7.5 – 8
Density at 20 °C	1 – 1.05 g/cm³
Solubility in water	Fully miscible
Flash point	Not determined (not classified as flammable)
Active ingredient	Alkyl(C12-16)dimethylbenzylammonium chloride
CAS No.	68424-85-1
EC No.	270-325-2
UFI	R300-S00U-A00X-G4VD
Storage	Protect from high humidity
Use category	For professional use only

CLP Classification — Regulation (EC) 1272/2008

Code	Hazard class	Hazard statement
H314	Skin Corr. 1B	Causes severe skin burns and eye damage
H318	Eye Dam. 1	Causes serious eye damage
H400	Aquatic Acute 1	Very toxic to aquatic life
H411	Aquatic Chronic 2	Toxic to aquatic life with long lasting effects

Signal word: DANGER. Pictograms GHS05 (corrosion) and GHS09 (environment). The product is registered in the European Poison Centres Notification database (ECHA PCN) for **Greece**. The classification is taken from section 2.1 of the Safety Data Sheet.

5. Dosage

Dosages are calculated on the basis of the **total water volume** of the pool. They are divided into an initial (start-up) dose and a maintenance dose.

Initial dose (first application)

Applied when the product is used for the first time in a given water volume, after filling the pool, or where turbidity is visible: **1.5 litres per 100 m³**.

Maintenance dose

For routine weekly maintenance and to preserve clarity: **350 ml per 100 m³, once a week**. In pools with a high bather load or during periods of intensive use, the frequency of application may be increased.

Pool volume	Initial dose	Maintenance dose (weekly)
25 m³	375 ml	88 ml
50 m³	750 ml	175 ml
75 m³	1.1 L	262 ml
100 m³	1.5 L	350 ml
150 m³	2.25 L	525 ml
200 m³	3.0 L	700 ml
300 m³	4.5 L	1.05 L
500 m³	7.5 L	1.75 L

Volume calculation: For a rectangular pool, Volume (m³) = Length × Width × Average depth (in metres). For a circular pool, Volume = π × (Diameter ÷ 2)² × Average depth.

DO NOT EXCEED THE DOSAGE

Overdosing does not speed up clarification. Because the product contains a surface-active compound, an excessive quantity causes **persistent foaming** on the water surface and may clog the filter prematurely. Recovery requires backwashing and partial water renewal.

6. Application Instructions

NO BATHERS IN THE POOL

Application takes place with the pool empty of bathers — with the water in place and the circulation pump running. Confirm that nobody is in the water before adding the product.

Step-by-step procedure

1. Wear the required PPE (gloves, goggles, protective clothing).
2. Confirm that there are **no bathers** in the pool.
3. Check and adjust the **pH to 7.2 – 7.6** before application.
4. Start the circulation pump and leave it running throughout the application.
5. Calculate the required quantity based on the pool volume (see Section 5).
6. Measure the quantity and add it to a **plastic container of clean water**. Always add the product to the water — never the water to the product.
7. Spread the solution **around the perimeter** of the pool surface so that it disperses evenly. Avoid pouring in front of the return inlets (this causes foaming).
8. Leave the circulation running so that the water passes through the filter at least one full turnover.
9. Check the filter pressure. If it has risen by 0.3 – 0.5 bar above normal, perform a backwash.
10. The prepared solution must be used **within 24 hours** — it is not stored.
11. Rinse the mixing container thoroughly and store the product as described in Section 10.

In cases of heavy turbidity the initial dose may be repeated after 24 – 48 hours, provided the filter has been backwashed and the pH checked. The dose is indicative and is adjusted to the characteristics of the pool and the climate.

Timing: Prefer the evening hours, so that circulation continues uninterrupted and the pool is clear the following morning.

7. Compatibility with Other Chemicals

OXYGON Pool Brightener is compatible with the usual pool maintenance chemicals, **provided they are added separately to the water and spaced apart in time**. Direct mixing of concentrated products is prohibited.

Product / Substance	Compatibility	Instruction
Chlorine (tablets, granular)	Yes, spaced apart	Add the brightener once chlorine has stabilised; never at the same time
Sodium hypochlorite (liquid chlorine)	Yes, spaced apart	Never add simultaneously; never mix in the same container
pH minus	Yes	Adjust the pH to 7.2 – 7.6 first, then apply
pH plus	Yes	Adjust the pH to 7.2 – 7.6 first, then apply
Flocculant	Yes, with care	Separately; flocculant requires still water, brightener requires circulation
Active oxygen (OxyPool / OxySpa)	Yes, spaced apart	Minimum interval of 8 hours
Sequestrant (Mineral Protect)	Yes	Complementary action — different target (metals)
Anionic products / detergents	NO	They neutralise the cationic active ingredient — loss of effect
Strong oxidising agents	NO	Risk of reaction; never mix directly

SAFE PRACTICE RULE

One chemical at a time. Each product is diluted and added separately to the pool water with the circulation running. An interval of at least 8 hours is observed between two different chemicals, with a pH check in between.

8. Water Checks & Maintenance

The effectiveness of the brightener depends directly on correct water balance and on the good condition of the filtration system.

Parameter	Target range	Check frequency
pH	7.2 – 7.6	Daily and before each application
Free chlorine	1.0 – 1.5 mg/L	Daily
Total alkalinity	80 – 120 mg/L	Weekly
Calcium hardness	200 – 400 mg/L	Monthly
Filter pressure	Up to +0.3 bar above initial	Weekly and after each application

Filter maintenance

The filter is loaded more heavily after each application. Check the pressure and perform a backwash when the reading rises by 0.3 – 0.5 bar above the normal operating value.

After each backwash the water removed must be replaced. Add a proportional maintenance dose for the new volume of water entering the pool.

Tip: Record the date and quantity of each application, together with the pH values before and after. The history makes it easier to fine-tune the dosage and to document the maintenance.

9. Troubleshooting

Problem	Probable cause	Action
Water remains cloudy after application	Insufficient circulation time; clogged filter	Continue circulation; backwash and repeat after 24–48 hours
Persistent foam on the surface	Overdosing or pouring in front of a return inlet	Stop dosing; backwash and partially renew the water
Turbidity returns after a few days	Continuous ingress of contaminants; inadequate chlorination	Increase maintenance frequency; check residual chlorine
No improvement in green water	Active algae growth — wrong product	Apply algaecide and shock chlorination first, then brightener
No improvement in brown/rust water	Turbidity caused by metals — wrong product	A sequestrant is required (OxyGuard Mineral Protect)
Filter pressure rises very quickly	Increased particle load in the filter medium	Normal after application; perform a backwash
Water became cloudier immediately afterwards	Transient effect immediately after application	Normal; continue circulation until the water clears
Reduced effect despite correct dosage	Mixing with or contact with an anionic product	The cationic active is neutralised; backwash and repeat separately
The product has changed appearance in the container	Improper storage (high humidity)	Do not use it; contact the technical support department
Bather irritation after reopening	Overdosing or pH out of range	Check pH and residual chlorine; partially renew the water

10. Storage & Handling

- Store in the original container, tightly closed and **upright**.
- Protect from **high humidity**.
- Keep away from direct sunlight and heat sources.
- Keep away from oxidising agents and from anionic products.
- Keep out of reach of children and unauthorised persons (P102).
- Smoking, eating and drinking are prohibited in the storage area.
- The prepared solution must not be stored — use within 24 hours.
- After opening, close the container carefully and place it upright.

SEPARATE FROM CHLORINE

Store OXYGON Pool Brightener separately from chlorine products and from oxidising agents. In the event of a simultaneous spill, contact between them may cause a hazardous reaction.

Not covered by Directive 2012/18/EU (SEVESO III). Transport in accordance with ADR/RID/IMDG/ICAO-IATA. Because of the environmental classification, particular care is taken to avoid spillage during transport.

11. First Aid

Route of exposure	Actions
Eye contact	Rinse immediately with plenty of cool clean water for at least 10–15 minutes, holding the eyelids open. Remove contact lenses if easy to do. Do not allow rubbing. Seek medical attention IMMEDIATELY (P305+P351+P338, P310).
Skin contact	Remove contaminated clothing immediately. Rinse the skin with plenty of water and soap. Never use solvents or thinners. Seek medical attention (P303+P361+P353).
Ingestion	Rinse the mouth with water. Do NOT induce vomiting. Keep the casualty at rest. Seek medical attention IMMEDIATELY and show the label or the SDS.
Inhalation	Move the casualty to fresh air, keep warm and at rest. If breathing is irregular or stops, apply artificial respiration and call for medical assistance.

Never give anything by mouth to an unconscious person. In case of doubt, or if symptoms persist, seek medical attention.

POISON CENTRE TELEPHONE

Greece: +30 210 77 93 777 (available 24 hours). In any case of exposure, have the product label and the UFI code available: R300-S00U-A00X-G4VD.

12. Spillage, Environment & Disposal

Dealing with a spill

- Wear the PPE listed in Section 1 before approaching the spill.
- **Immediately prevent the product from entering drains, sewers and water bodies.**
- Contain and collect the liquid with inert absorbent material (sand, earth, vermiculite).
- Collect the residues in suitable closed containers for disposal as hazardous waste.
- Clean the area with water, collecting the wash water — do not allow it to reach a drain.
- In the event of a large spill that has reached a water body, notify the competent authorities immediately.

Environment

The product is classified as hazardous to the aquatic environment: very toxic to aquatic life (H400) and toxic with long lasting effects (H411). Any release to the environment must be avoided (P273). Disposal into sewers, drains, streams or watercourses is not permitted, nor is penetration into the ground.

Disposal

Disposal of the contents and of the container is carried out in accordance with local, regional, national and international regulations (P501), following the provisions of Directive 2008/98/EC on waste management. Backwash water following an application is disposed of in accordance with local regulations for pool water. Empty containers must not be reused for any other purpose.

13. Warranty & Contact Details

OXYGON warrants that the product meets the specifications stated in the Technical Data Sheet (TDS), provided it is kept in its original sealed container and under the prescribed storage conditions.

The warranty does not cover results arising from incorrect dosage, from mixing with incompatible products, from improper storage, or from use outside the instructions in this manual. Since conditions differ at every installation, the user must confirm the suitability of the product for the specific application.

Person responsible for placing on the market: **KARAVASILIS STERGIOS & SIA EE — OXYGON**. For technical support, dosage guidance or a copy of the Safety Data Sheet (SDS), contact the technical support department.

Contact Information

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ISO Certifications

ISO 9001:2015 Quality Management *EUROCERT*	**ISO 14001:2015** Environmental Management *BQV*	**ISO 45001:2018** Occupational Health & Safety *BQV*
ISO 22301:2019 Business Continuity *EUROCERT*	**ISO 46001:2019** Water Efficiency *BQV*	

Recycling of materials must be carried out in accordance with applicable regulations.