

Biopure[®] **Plus**
ClO₂ CHLORINE DIOXIDE

Biopure® Plus

ClO₂

Technical information

DESCRIPTION

Biopure® Plus is an excellent biocide disinfectant, capable of eliminating viruses, bacteria, spores, biofilm, etc, effectively, quickly, and safely.

Its high disinfectant capability makes it the most selective oxidizer, ideal for purifying any type of drinking water and treating water in swimming pools, spas, cooling systems, process water, wastewater, and water for washing and transporting fruit and vegetables.

Suitable for sensitive areas like the food industry, cosmetics, drinking-water plants, pharmaceuticals and cosmetics, sterilization of medical and laboratory equipment, etc.

Suitable for consumption, from occasional use to 20 m³/day and only where automatic chlorine dioxide generation equipment is not viable.

If possible, it is always advisable to use automatic generation instead of manual, and volumetric dispensing versus other types, with the exception of batch applications for very specific or occasional treatments.

CHARACTERISTICS

Appearance: yellow liquid with characteristic odor.

Composition: active ingredient from 0.1 % to 0.2 %.

Density at 20 °C: 1.03 g/cm³.

pH at 20 °C: 2.61 (1 %).

Fully **soluble in water**.

ADVANTAGES

- More effective disinfection at lower doses than common disinfectants.
- Irrespective of the pH value; ideal for treating water with a high pH.
- Long-lasting effect, ensuring optimal disinfection even of areas the farthest away from the treatment point.
- Minimal reaction time, reducing contact times.
- Considerably better deactivation of pathogens compared to other biocide products.
- Destroys the biofilm in water pipes.
- Does not add taste or smell to water.
- No chloramines or trihalomethanes (THMs) are formed.
- Applied through similar dispensing systems to those used for conventional biocide products.
- Better performance as it is highly stable; uniform dispensing during the application period.

COMPOSITION

Stabilized chlorine dioxide solution.

ClO₂ CHLORINE DIOXIDE

DOSE

Doses can vary depending on water quality, forms of application, etc.
Below, we give guide doses for some applications:

Water treatment



Standard solution (0.2 %):

Dose between 0.1-0.5 ml/1 liter of water
(theoretical 0.2-1 ppm ClO₂)



Low concentration solution (0.1 %):

Dose between 0.2-1 ml/1 liter of water
(theoretical 0.2-1 ppm ClO₂)

Adjust depending on quality, application point and purpose.

Practical examples in livestock farming:

From 1 to 8 m³/day
(duration between 60 and 15 days)

1 Starter kit 60 (2u. Biopure® Plus E-2 kg)

From 9 to 20 m³/day
(duration between 50 and 20 days)

1 Starter kit 210 (1u. Biopure® Plus E-12 kg)

Doses calculated based on theoretical 1 ppm of ClO₂.



Pipe cleaning

Dispense 1.5 % (15 ml/l) with the standard solution and 3 % (30 ml/l) with the low concentration solution.

Completely fill the pipes to be treated with the

prepared solution, ensuring the product reaches the end and let the product work for 4-5 hours.

Afterwards, empty the pipes and rinse with plenty of water, if possible, using light pressure.

Other applications

Washing fruit and vegetables, agriculture, cooling towers, wastewater, food industry, etc.

The dose will depend on the residual amount desired in each case. Consult our technical department.

INCOMPATIBILITIES

Organic compounds, acids, combustible materials, reducing agents, phosphorus, sulfur, mercury.

REGISTRATION AND REGULATIONS:

In accordance with Regulation (EC) 1272/2008 and (EC) 1907/2006 (REACH). Authorized for use in drinking water in accordance with Royal Decree 140/2003 and Royal Decree 902/2018.

* Availability subject to country and application. Check with your distributor.

Biopure® Plus

PACKAGING

The reagents comprising Biopure Plus are sold in a pack of two components.

Biopure® Plus E-2kg

Biopure Plus E-2kg (pack of 6 u.)

1-kg bottle format for Starter kit 60 preparation solution.



Biopure® Plus E-12kg

6-kg bottle format for Starter kit 210 preparation solution.

PREPARATION AND USE

Biopure® Plus is prepared easily and safely by adding the precursors to a volume of water. Read the instructions carefully before preparing. Always use the Starter kit 60 preparation solutions.

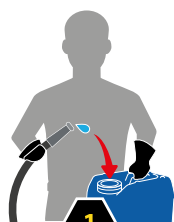
Biopure® Plus is packaged in two solution formats that allow a preparation according to the amount needed for each application: This prevents it from degrading, minimizing waste product and thereby optimizing performance and reducing possible overdoses that can be detrimental to health as well as other materials in contact with the solution.

The standard solution has a chlorine dioxide concentration of 0.2 % and it is recommended to last no more than 25 to 30 days.

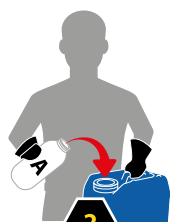
If the solution is expected to last longer, preparing the low concentration solution is recommended, with a chlorine dioxide concentration of 0.1%, offering greater stability.

Concentrations in excess of 0.2 % degrade very quickly and they are completely unstable. Concentrations of 0.75 % can fall to 0.2 % in a matter of hours.

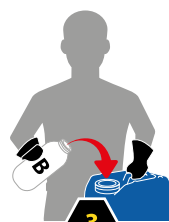
* Basic diagram of preparation method with Starter kit 60 (Starter kit 210 has the mixing container as a modifier).



ADD WATER



ADD
BIOPURE® PLUS A



ADD
BIOPURE® PLUS B

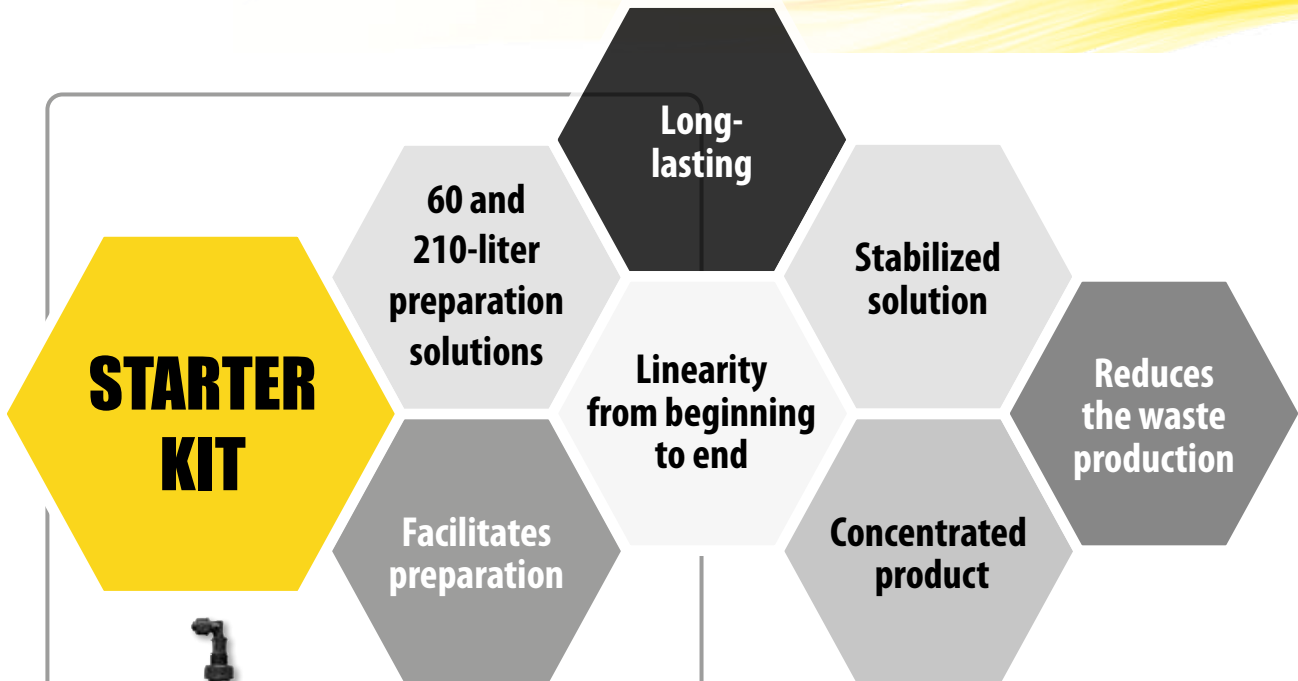


SHAKE



WAIT

ClO₂ CHLORINE DIOXIDE



60

Preparation of 60 liters of ClO₂.

Use Biopure® Plus E-2kg (A+B in bottles).

Standard solution (0.2 %).

- To treat 120 m³ of water at theoretical 1 ppm.
- 2 bottles of Biopure® Plus A + 2 bottles of Biopure® Plus B.
- Use within 30 days.

Low concentration solution (0.1 %).

- To treat 60 m³ of water at 1 ppm.
- 1 bottle of Biopure® Plus A + 1 bottle of Biopure® Plus B.
- Use within 30 days.



210

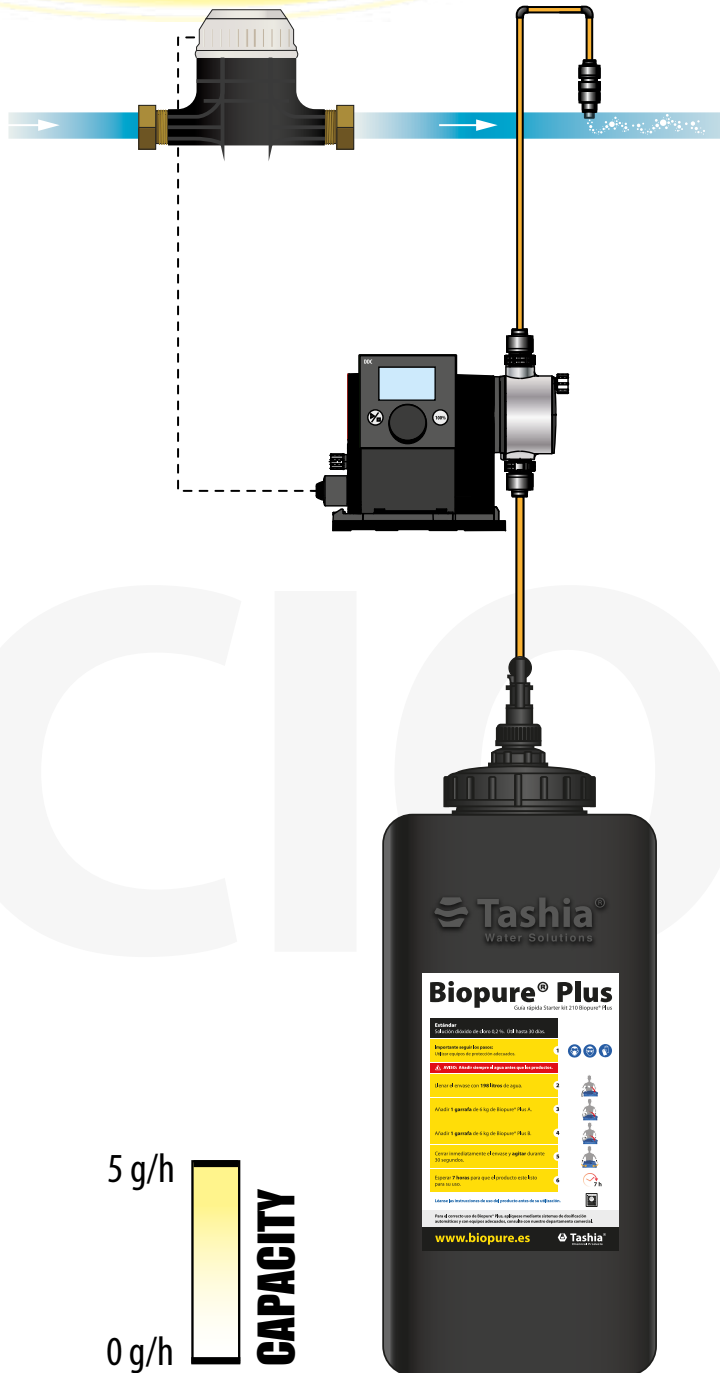
Preparation of 210 liters of ClO₂.

Use Biopure® Plus E-12 kg (A+B in large bottles).

Standard solution (0.2 %).

- To treat 420 m³ of water at 1 ppm.
- 1 large bottle of Biopure® Plus A + 1 large bottle of Biopure® Plus B.
- Use within 30 days.

Biopure® Plus



MANUAL ClO₂ GENERATION

- An ideal system for consumption, both for occasional use and up to 20 m³/day.
- Fully soluble in water.
- Easy, safe preparation with the appropriate accessories (Starter kit).
- Linearity from beginning to end.
- Stabilized solution.
- Reduces waste production.
- Concentrations in excess of 0.2 % degrade very quickly and are completely unstable.

**SOLUTION,
PRODUCT,
AND
SERVICE**

ClO₂ CHLORINE DIOXIDE

ACCESSORIES

DOSING PUMP

- Membrane dosing pump.
- Volumetric.
- Flow rate: from 0.006 to 15 l/h.
- Maximum pressure: 4 or 10 bar (depending on the model).
- Head material: PVC.
- Seal material: PTFE.
- Ball material: ceramic.
- Voltage: 100-240 V, 50/60 Hz.
- Digital dial with adjustable color settings.
- Manual speed control and pulse control.
- SlowMode (anti-cavitation) function, calibration, and event logging.
- Input for external stop, pulse control, low level signal, and empty tank signal.



INSTALLATION KITS

Model	Code	Pipe connection	Dosing pump connection	Flow rates (l/h)		
				Qa	Q min.	Q max.
KIT 20/Altair	17132120	1/2"	1/2"	4	8	2,500
KIT 25/Altair	17132125	3/4"	1/2"	6	10	4,000
KIT 32/Auriga	17132032	1"	1/2"	20	50	6,300
KIT 40/Auriga	17132040	1 1/4"	1/2"	25	90	10,000
KIT 50/Auriga	17132050	1 1/2"	1/2"	40	150	16,000

ACCESSORIES

- Suction set.
- 60- or 210-liter Starter kit.
- Injection valves.
- Contact cable.



ANALYZERS

- We offer a wide range of analyzers for checking different water parameters.



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