

APPLICATIONS

Used to disinfect drinking water in aquaducts or on board ships and for disinfecting residual sewage water from waste water treatment. Also used for disinfecting swimming-pool and Jacuzzi-pool water.

ADVANTAGES

Control and removal of bacterial flora ensured, thus meeting the essential requirements for drinking water. 12% SODIUM HYPOCHLORITE is universally recognized as a disinfectant for drinking water (approval by the MINISTRY OF HEALTH) therefore its use is allowed in all civil water supply lines.

RECOMMENDED DOSAGE

0,2 PPM of RESIDUAL ACTIVE CHLORINE as assessed by DPD method and tablets or ortho-tolidine should always be present in the ship or pipeline farthest point from place of application. Residual chlorine in drinking water tanks should range between 0,5 and 2 (maximum) PPM, to ensure wide range antibacterial protection.

To obtain 2 PPM in a drinking water tank, put 20 cc of *CHLOR 12* (corresponding to approximately 20 pump strokes of the proportioning pump) for every cubic meter of water. *CHLOR 12* may either be proportioned manually with the proportioning pump or automatically upon water loading by means of a proportioning system featuring a pulse water-meter connected with a special proportioning pump. To obtain 20 cc per ton of *CHLOR 12* (or 200 cc every 10 tons). A meter must be installed releasing one impulse every 50 lt. of water flowing inside the pipe. Alternatively, an oversized meter can be used (i.e. every 10 lt.). In this case the sodium hypochlorite solution must be diluted with water or the proportioning pump has to be set to have a pump stroke every 50 lt. Consult your *UNIMARINE* Service Engineer for disinfecting swimming-pool and Jacuzzi-pool.

NATURE OF SPECIAL RISKS AND SAFETY ADVICE

In accordance with the latest EEC Council directives this product is subjected to:

- R31 : Contact with acids liberates toxic gas
- R34 : Causes burn
- S2 : Keep out of reach from children
- S28 : After contact with skin, wash immediately with plenty of water.
- S50 : Do not mix with acids
- S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label if possible)

Contains approx. 15% max. active chlorine at time of production.

Symbol: C (Corrosive)

For further information see page 2



CHLOR 12

12% SODIUM HYPOCHLORITE

Desinfectant activator

- Desinfects drinking water
- Controls and removes bacterial flora
- Desinfects residual sewage water and waste water systems

PRODUCT CHARACTERISTICS

Appearance:	light yellow liquid, chlorine odor
Flash point:	none
pH 1% solution:	11
IMO Class:	8
UN Number:	1791
ADR:	8.61c)

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s a f e t y

PROTECTIVE MEASURES, STORAGE AND HANDLING

Technical protective measures:

Storage:	Keep the containers sealed. (Keep original closing on drum and be aware of filthiness). Keep container in a well ventilated dark place.
Handling:	Personal protective equipment / Respiratory protection
Hand protection:	Gloves (PVC)
Eye protection:	Safety glasses
Other:	Industrial hygiene / Keep away from food, drink and animal feeding stuff. Immediately take off all contaminated clothing.
Protection against fire and explosion:	In case of fire keep container cool with water-spray
Disposal:	Waste disposal for chemical waste

INFORMATION ON TOXICITY

Inhalation:	Pungent, sore throat, coughing, labored breathing
Skin:	Redness, pain
Eyes:	Corrosive, redness, pain, blurred vision
Ingestion:	Corrosive, sore throat, abdominal spasm, vomiting

INFORMATION ON ECOLOGICAL EFFECTS

Spilling of the product into the water may cause damage to fishes and water organisms by raising pH and liberation of chlorine.

MEASURES IN CASE OF ACCIDENTS AND FIRES

After spillage / leakage / gas leakage:	Collect leaking liquid in containers that can be sealed, wash away remainder with large amount of water.
Extinguishing media Suitable:	N/A

First Aid:

Inhalation:	Fresh air, rest, put in half-upright position and transport to hospital.
Skin:	Remove contaminated clothes, rinse skin with plenty of water or shower and call a doctor, if necessary.
Eyes:	First rinse with plenty of water, then transport to a doctor.
Ingestion:	Rinse mouth, give plenty of water to drink and transport to hospital immediately.