

CHLORINE SCAVENGER

AntiChlor 30

Liquid Sodium Bisulfite

AntiChlor 30 liquid is a dechlorinating agent used as a mild, non-oxidizing biostat or injected into reverse osmosis (RO) feedwaters to protect polyamide membranes from permanent damage caused by chlorine. AntiChlor 30 is a 30% (minimum) solution of sodium bisulfite. It is a food-grade reducing agent and is certified by NSF International for use in systems producing drinking water.

APPLICATIONS

The use rate of AntiChlor 30 for free chlorine is 4.5 mg/l of neat AntiChlor 30 for each mg/l of free chlorine. The neat use rate for combined chlorine (monochloramine) is 6.1 mg/l of neat AntiChlor 30 for each mg/l of combined chlorine. The following table lists AntiChlor 30 feed rates as a function of feedwater chlorine concentration. The table bases values upon a feed rate of 100 gpm (22.7 m³/hr) and a 100% theoretical required dosage.

FREE OR COMBINED CHLORINE mg/l as Cl ₂	FREE CHLORINE FEED RATE ml/minute	COMBINED CHLORINE FEED RATE ml/minute
0.2	0.28	0.38
0.5	0.69	0.94
1.0	1.39	1.88
1.5	2.10	2.81

Table 1. Feed rates for AntiChlor 30 Chlorine Scavenger

Multiplying the AntiChlor 30 feed rate by 1.2 provides a 20% safety factor. Always confirm chlorine removal by direct chemical analysis.

SANITIZING

In systems where non-oxidizing biocides cannot be used, AntiChlor 30 liquid can be applied as an alternative. Recirculate a 1% wt/wt solution through the membrane system for 30-60 minutes. Follow with an alkaline cleaner, such as RoClean P111 or RoClean L211, to remove organic products produced by the inoculation of bacteria and other microorganisms. For preserving recirculate a 3% wt/wt solution through the membrane system for 30 minutes. Ensure the system is completely full. Close the system valves to prevent draining. Check pH weekly and replace solution if pH changes.

STABILITY

When diluting the solution, use the minimum agitation necessary to achieve proper mixing. The freeze point for this formulation is from 25°F to 32°F (-3.6 to 0.0°C).

CHEMICAL AND PHYSICAL PROPERTIES

CHARACTERISTICS	DATA
Appearance	Colorless – light yellow
pH (as supplied)	3.5 – 5.5
Specific gravity (@25°C)	1.15 – 1.35

PERFORMANCE BENEFITS

- A powerful dechlorinating agent to help protect polyamide membranes from permanent damage.
- Compatible with polyamide and cellulose acetate membranes.
- Can be used to preserve membranes in storage or as an on-line biostat for membrane systems.
- A 30% sodium bisulfite (NaHSO₃) solution containing 20% active sulfur dioxide (SO₂).
- Extremely economical when compared to other methods of chlorine removal.

PACKAGING AND STORAGE

Standard regional pack sizes are listed below. Information on drumless or bulk tanker delivery is available on request. Product should be stored at a temperature greater than 41°F (5°C) to prevent seed crystal formation.

PACKAGING FORMAT	AMERICAS	ASIA	EMEA
Pail	45 lb	20 kg	20 kg
Drum	500 lb	200 kg	-
IBC tote	2500 lb	1100 kg	-

Please consult your sales representative for further technical or logistical details, and always review the SDS before use to ensure suitable safety precautions are followed.

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