

Water Technologies & Solutions fact sheet

BioMate* MBC881

membrane biocide

features

- Highly effective in reducing bacterial growth and slime build-up on a variety of membrane types.
- Specifically formulated to be compatible with thin film polyamide, polysulfone, and PVDF membranes.
- Excellent results often obtained with only one 30-minute treatment per week.
- Performance of BioMate MBC881 is enhanced if used after cleaning with Kleen* MCT442 or Kleen MCT882 and Kleen MCT511.

description

BioMate MBC881 is an EPA registered, non-oxidizing biocide used to sanitize reverse osmosis (RO) and ultrafiltration (UF) systems and membranes. BioMate MBC881 may be used as an intermittent treatment to the feed waters of these systems. A treatment program that includes BioMate MBC881 with other SUEZ cleaning formulations will result in more effective membrane cleaning and decreased cleaning frequencies.

packaging information

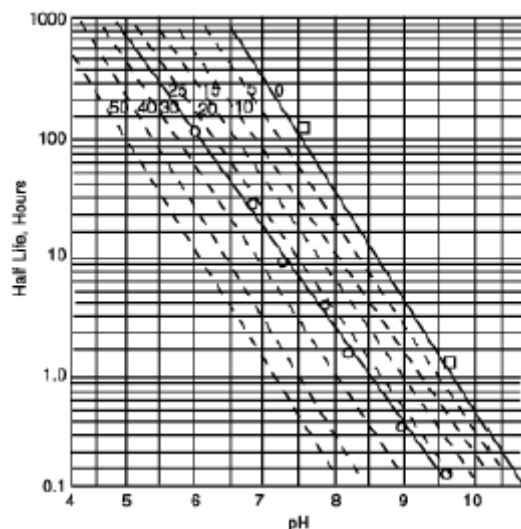
BioMate* MBC881 is a liquid material, available in a wide variety of customized containers and methods. Contact your SUEZ sales representative for details.

application

BioMate MBC881 acts rapidly to control microorganisms, then naturally hydrolyzes to

compounds of much lower toxicity. Both high pH and high temperature speed this natural detoxifying process. The following figure illustrates this pH and temperature dependence. In addition, BioMate MBC881 can be quickly deactivated with either sulfide ion or sulfite ion.

BioMate MBC881 should only be used only for industrial applications. It should never be used in those applications in which membrane system permeate, or products formulated with permeate, could be consumed by or injected into humans or animals.



Half-Life of MBC881 vs. pH and Temperature (°C)

dosing

One thirty minute treatment with BioMate MBC881 per week is recommended for most RO systems. Apply BioMate MBC881 by injecting the formulation in

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the RO system feedstream while the system is in operation. To treat severely fouled systems, BioMate MBC881 may be used in a clean in place mode, ideally following a thorough cleaning of the system.

Note: Do not exceed the EPA maximum dosage limits provided on the packaging label.

Typical dosages are:

- 15-40 ppm when added continuously online
- 100 to 400 ppm when added intermittently on-line
- 400 ppm when used to sanitize membrane systems immediately following a cleaning sequence.

materials compatibility

Corrosion-resistant equipment, should be used for the storage, preparation, and use of this product per the following compatibility chart:

Rating	Material
A	EPR, Viton Lithurge, Kynar, PVC, Teflon
B	Viton A, Urethane, Buna N, Neoprene, Polyethyl HD, Nylon, Polyethyl HDCL, Polypropylene, Polysulfone
C	LCS, Butyl, Hypalon, Polyethyl LD
X	Al, SS

(Viton and Teflon are registered trademarks of DuPont. Kynar is a registered trademark of AtoChem.)

on-line addition procedure:

Note: This procedure is NOT to be used for potable applications.

1. Direct the permeate and brine streams to waste.
2. Inject BioMate MBC881 at the calculated dosage into the RO feed stream for 30 minutes.
3. Discontinue BioMate MBC881 injection and continue to direct permeate and concentrate to waste for an additional 15 minutes.
4. Return the RO system to normal operation.

clean-in-place sanitizing instruction

The following general cleaning procedure can be followed. For the optimum cleaning procedure for your system, contact your SUEZ representative.

1. Clean the membrane system following standard procedures for your plant.
2. Secure the RO system and valve into the CIP mode.
3. Fill the cleaning tank to the desired level of water.
4. Add 400 ppm (mg/L) of BioMate MBC881 to the tank and recirculate to dissolve.
5. Recirculate the BioMate MBC881 solution for a minimum of 45 minutes.
6. Discontinue recirculation after 45 minutes and thoroughly rinse the system (both feedwater AND permeate water channels) with dechlorinated feedwater.
7. Flush thoroughly until all BioMate MBC881 is removed from system.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.