

Water Technologies & Solutions

fact sheet

Kleen* MCT442

membrane cleaner

- Highly effective in removing inorganic and organic foulants from membrane surfaces
- Compatible with all thin-film membranes; limited compatibility with cellulose acetate membranes (pH adjustment may be required)
- Buffered to maintain an effective pH throughout the cleaning process
- Concentrated powder formulation

description and use

Kleen MCT442 is a low pH, powder formulation, specifically designed to remove calcium carbonate and other inorganic scales from reverse osmosis (RO), nanofiltration (NF), and ultrafiltration (UF) membranes. Kleen MCT442 can also remove organic foulants from the membrane surface. This highly effective product provides superior cleanings, resulting in longer system running time.

typical applications

When scaling or fouling in RO membranes accumulates to a level where RO performance is impacted, a clean-in-place (CIP), off-line cleaning should be conducted. Indications of the need for cleaning can include decreased normalized permeate flow, increased operating pressure, increased differential pressures, and increased salt passage. Maintaining normalized data is strongly recommended to properly monitor these trends.

Clean-in-place procedures should specify separate acid and alkaline cleaning steps. The sequence of these steps is dependent upon the nature of the foulant(s).

Consult your SUEZ representative for normalization tools, cleaning tips, and alkaline cleaner product recommendations.

general cleaning guidelines

Always follow the cleaning procedures outlined in the manufacturer's Operation and Maintenance Manual for your specific system. Maintain CIP conditions (pH, temperature, etc.) within the established limitations of the membrane manufacturer.

Important note: This product has a high foaming potential. The CIP return lines should enter the CIP tank below the liquid level of the cleaning solution.

Dilution – The product must be diluted prior to introduction into the membrane system. The recommended dilution for this product is one pound (0.45 kg) of Kleen MCT442 per 5.6 gallons (21L) of water.

Contact time – CIP cleaning duration can vary depending upon the severity of fouling. Typical contact time is 1 to 3 hours, however up to 24 hours soak time may be necessary for severe fouling.

System Rinsing – The system should be rinsed between acid and alkaline cleanings to minimize heat generation and cleaner deactivation.

System Flush – Flushing is recommended after the system has been cleaned. As a guideline, the pH of the concentrate or reject should be within +/- 2 pH units of the feed water, before returning the system to service.



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additional information

Packaging - Kleen MCT442 is available in a wide variety of containers and delivery methods.

Safety Precautions - A Material Safety Data Sheet containing detailed information about this product is available on request (also available online at www.suezwatertechnologies.com.)

Contact your SUEZ representative to request materials compatibility information.

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