

# Diamite™ Gypsum

Targeted Membrane Cleaning Enhancement

Diamite™ Gypsum is an aqueous formulation of chelating agents specifically designed to dissolve calcium sulfate scales (gypsum as dihydrate, anhydrite as anhydrous and hemi hydrate forms) that are commonly found in aqueous systems, such as reverse osmosis, nano filtration, cooling, ion exchange, boiler and distribution systems. It is also effective in dissolving strontium sulfate and calcium fluoride scales, but not barium sulfate, unless barium sulfate crystals are embedded in calcium or strontium sulfate matrix in which case barium sulfate particles become dislodged and suspended. On an equal weight basis, the active ingredients in Diamite™ Gypsum will dissolve several times more scale and more rapidly than the most commonly used chelating and solubilizing agents. It is non-toxic and environmentally friendly.

## SPECIFICATIONS: LIQUID

<b>Appearance:</b>	Colorless to pale yellow liquid.
<b>pH (aqueous sol'ns):</b>	<11.5
<b>Specific Gravity:</b>	1.20 ± 1.35
<b>Solubility in water:</b>	Unlimited

## Cleaning Guidelines

1. Clean each RO train when its normalized productivity has decreased by 15% from clean operation.
2. Prepare the cleaning solution using a 1:40 mixing ratio of chemical to permeate or DI water. For safety, insert the water into the tank first, followed by the chemical. If the system is not drained before cleaning, assume that approximately 4 gallons of water is present in each 8"x40" membrane element and 1 gallon of water is present in each 4"x40" membrane element after a thorough system flush.
3. For each cleaning cycle, use 15 gallons of cleaning solution per 8"x40" element, or 10 gallons of cleaning solution per 4"x40" element. The volume of cleaning solution necessary may fluctuate depending on the volume of your CIP tank.
4. Recirculate solution continuously at 30-40 GPM per 8" pressure vessel, or 7-10 GPM per 4" pressure vessel. Pressure should not exceed 60 psi, and permeate production should be minimized.
5. Soak and circulation times will vary based on the condition of the membranes. Measure the conductivity of the solution in the system and make a note of the measurement before beginning the calcium sulfate cleaning. The conductivity should increase throughout the cleaning cycle.
6. Circulate the cleaning solution for a minimum of 2 hours, or until the conductivity of the solution has stopped increasing. Heavily fouled membranes may require a static soak of 2 or more hours.
7. Discard the used solution and rinse the system thoroughly.

## Packaging:

Liquid: 5 gal, 55 gal

\*SDS available at [kingleetechnologies.com](http://kingleetechnologies.com)

