

C-SERIES CLEANERS

AXEON® C-Series Cleaners are heavy duty cleaners that quickly and easily mix with water to make an easy to use cleaning solution that safely and effectively removes a wide range of membrane foulants from polyamide thin film (TF), cellulose acetate (CA), ultrafiltration (UF) membrane elements, and (NF) nanofiltration.



AXEON C-Series Cleaners			
Product	For Removing	Membrane Types	Solution pH
C-10 ^A	Calcium Carbonate Scale	TFC, CA, UF, and NF	2

SYMPTOMS OF CALCIUM CARBONATE SCALE

- Scale extruding out of the downstream end of the last membranes in the system.
- All of the scale dissolves when introduced to a dilute hydrochloric acid solution.
- Poor salt rejection, low flow, and/or high pressure differential on individual membrane test data.
- 8" x 40" Element weight exceeds 45 pounds.
- Site reports interruption in the antiscalant or acid injection.
- Site reports scale in the last vessel or piping of the concentrate stream.

TESTING FOR CALCIUM CARBONATE SCALE

Calcium carbonate scale is not always white. However, a quick test can be conducted to see if the foulant is comprised solely of calcium carbonate.

In a glass beaker, make a 1:1 dilution of HCl and DI water. Drop a small sample of the foulant into the solution. If the foulant contains calcium carbonate, it will bubble. Continue adding acid until the bubbling stops or until the scale disappears.

If the beaker contains residual material after the bubbling has stopped, then the foulant consists of more than just calcium carbonate.

Product	For Removing	Membrane Types	Solution pH
C-20 ^A	Organics	TFC, CA, UF, and NF	11

A. MSDS available upon request.

SYMPTOMS OF BIOLOGICAL FOULING

- Visible slime on the feed side of the membrane.
- Site reports slime in the cartridge filter housing and piping.
- Site reports high pressure differential in the first array.
- Odor.
- Individual membrane test data reports high pressure differentials.
- Membranes are telescoped.

STEPS TO PREVENT BIOLOGICAL FOULING

- Properly dose sodium bisulfite.
- Clean and sanitize the pretreatment equipment and piping.
- Consider an intermittent biocide treatment.
- Evaluate the necessity of a continuous injection biocide.