



## CC KLEAN 015

### MEMBRANE CLEANER

- Suitable for use with all thin film or cellulose membranes
- Buffered to maintain a pH of 1,5 (1%)
- Liquid cleaner giving faster mixing time
- Low foaming characteristics
- Repeated use will have no adverse effects on membrane integrity

### Description and Use

CC KLEAN 015 is a low pH liquid formulation specifically designed to remove metal hydroxides, calcium carbonate and other scales from membrane based water treatment units such as reverse osmosis (RO), nanofiltration (NF) and ultrafiltration (UF). The superior cleaning results provided by this product results in longer intervals between cleaning giving optimal system performance.

### Application

For the best results, CC KLEAN 015 should be used in combination with Copenhagen Chemicals high pH cleaners f.ex. CC KLEAN 120 or CC KLEAN 125.

Contact your local Copenhagen Chemicals partner to determine the correct dosage rate and cleaning procedure that will give optimal performance in your system.

In some cases modifications to the existing clean-in-place facilities may be required to get optimal cleaning results.

### Dilution

The typical dilution ratio for the product is between 0,3-1% (w/w) based on the total cleaning system volume, including tank, pipework, filtration and membrane vessels and elements.

**DO NOT BLEND WITH CHLORINATED PRODUCTS**

### General membrane cleaning instructions

Always start by inspecting the cleaning tank, any hoses and replace the filter elements in the cleaning loop with new cartridges.

Fill the cleaning tank with permeate or de-ionised water. Add the required amount of CC KLEAN 015 to the cleaning tank and mix the solution. Heat the cleaning solution to the temperature range 35-50 °C.

Circulate the solution through the membrane arrays in the feed direction for 15-40 minutes at the flowrate recommended by the membrane manufacturer.



In case of heavy fouling, the first return flow should be led to drain to prevent re-deposition of the removed fouling. This could be up to 20% of the cleaning tank volume.

In a multi-array system, the best results will be achieved by cleaning each array separately.

If the cleaning solution becomes turbid, discoloured or the pH moves out of the recommended range, the solution must be drained and a new cleaning solution prepared before continuing the cleaning process.

After the cleaning process is done, the system should be rinsed with permeate, if possible, before being returned to service.

## **Packaging Information**

CC KLEAN 015 is a liquid blend that is delivered in 27, 275 or 1.300 kg as standard packaging. Upon request, the product can be delivered in other quantities. Contact your Copenhagen Chemicals partner for details.

## **Material Safety Data Sheet**

A material Safety Data Sheet that contains detailed information and safety precautions about this product is available upon request.