

# HYDREX™ 4102

Product Information - Technical Datasheet

## Scale Inhibitor for Reverse Osmosis & Nanofiltration Systems



### Description And Use

HYDREX 4102 is a multifunctional antiscalant for reverse osmosis and nanofiltration systems.

Detailed studies have shown that HYDREX 4102 is considerably more effective than many competitive products at controlling scale formation in Reverse Osmosis and Nanofiltration systems over a wide range of conditions. This product excels as a sequestering agent for most metal ions.

HYDREX 4102 exhibits a threshold effect. The product performance shows a decisive advantage over polyphosphate for threshold scale inhibition since it is hydrolytically stable. product functions over a wide pH range and usually replaces the need for acid addition.

HYDREX 4102 is very effective in controlling Calcium Carbonate, Calcium Sulphate, Strontium Sulphate, Barium Sulfate, Ferric Hydroxide and other scalants. product is certified to ANSI/NSF Standard 60 (in some regions) for use in reverse osmosis and nanofiltration systems producing potable water.

### Advantages

- Highly effective antiscalant across a broad spectrum of water parameters
- Eliminates the need for acid addition in most application
- Approved under ANSI/NSF Standard for potable water production
- Ability to complex and control metal ions
- Proven to be more effective than competitive products under a wide range of conditions
- Concentrated product to increase cost effectiveness
- Allows systems to work at higher rates of recovery

### Specification

Physical form: Liquid  
Color: Colorless to dark yellow  
Odor: Ammonia  
pH product value: 10.0 - 11.5  
Specific gravity: 1.350 - 1.450

### Materials Compatibility

Tanks recommended material: PVC, Crosslinked HDPE, Polypropylene  
Tanks not recommended material: Aluminum, copper or its alloys, carbon steel, galvanized steel.  
Pumps & piping recommended material: Polyethylene HD, Polypropylene, PVDF, Teflon, PVC  
Pumps & piping not recommended material: Aluminum, copper or its alloys, carbon steel, galvanized steel.

### Application Information

HYDREX 4102 is miscible with water in all proportions. It may be applied as neat product, or as a solution in permeate water. Minimum dosing solution strength of 10% w/w is recommended. HYDREX 4102 should be dosed continuously and proportionately to the feed water flow to maintain the recommended dosage level. The correct dosage rate is dependant upon several parameters, including feed temperature, pH, and water analysis, and will be specified by our Veolia representative after a detailed survey of your plant.

The product should be injected in membrane systems after Chlorine and Sodium Metabisulphite treatment, downstream of any filtration equipment and cartridge filters.

HYDREX 4102 is not compatible with residual cationic monomers from the pre-treatment.

### Handling, storage and packaging

Store product in cool, dry area away from sunlight for best product longevity. Keep from freezing.  
HYDREX 4102 is available in bulk, semi bulk and small containers. Details are available on request.

### Safety information

Detailed information on the product described in this leaflet can be found in our relevant health and safety information (Safety Data Sheet). Please contact your Veolia representative for further information.