



HYDREX™ 4102

Product Information – Technical Data Sheet

Water Treatment Chemical
Membrane Antiscalant



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. Hydrex 4102 is a good sequestering agents for most metal Ions.

Hydrex 4102 exhibited a threshold effect. The product shows a decisive advantage over polyphosphate for threshold scale inhibition since it is hydrolytically stable, and functions over a wide pH range and usually replace 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.

Hydrex 4102 is certified to ANSI/NSF Standard 60 for use in reverse osmosis and nanofiltration systems producing potable water.

Advantages

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

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 consultant 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.

Specifications

- Appearance : Clear to pale yellow liquid
- Specific Gravity : 1.40 – 1.44 (@ 20 °C)
- pH (as supplied) : 10.0 – 11.5 (@ 25 °C)
- Flash Point : Non-flammable
- Solubility in Water : Soluble in all proportions

Materials Compatibility

Hydrex 4102 is an aqueous solution and corrosive in its concentrated form. Corrosion resistant dosing equipment must be used. Suitable materials are PVC, glass lined, glass reinforced plastic, PP or HDPE.

Packaging

Hydrex 4102 is available in bulk, semi bulk and small containers. Details are available on request.

Shelf life of Hydrex 4102 is 2 years under normal handling and storage conditions.

Safety Information

This product is alkaline and corrosive to body tissue, must be handled with care. Skin and eye contact must be avoided. Gloves and goggles should be worn, along with protective overalls when handling.

Store in the original containers and ensure that the cap is always secure. Do not store in temperatures above 40°C or below 0°C for extended periods. Do not stack more than two high for prolonged periods. Avoid storing near direct heat and in direct sunlight. Please refer to the SDS for more detailed information.

Publication

This product information is released on 25 Mar. 2024, to replace all previous versions of Hydrex 4102 product information document.

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