



INFICHEM ▶▶

**REVERSE OSMOSIS (RO) SYSTEM
ANTISCALANTS & CLEANING CHEMICALS**

INFINITY



●●●● **MADE**
○●○● **IN**
●●●● **INDIA**

www.infinityequipments.com

RO ANTISCALANT

Reverse osmosis is a membrane filtration process that is used extensively for the desalination and purification of water. Our chemical products are based on advanced formulations and include RO membrane cleaners, scale inhibitors and antiscalant, biocides, antifoulants and dechlorinators. Our advanced formulations have been developed specifically for the desalination and reverse osmosis sectors and offer significant safety, cost, environmental and operational performance benefits over traditional products. Reverse osmosis (RO) membrane performance can be negatively impacted by impurities that build up on the membrane surface during operations. Suspended solids, microorganisms and mineral scale can foul membrane elements. These deposits can cause loss in output and/or rejection levels and reduce total system performance. Antiscalants are surface active materials that interfere with precipitation reactions in three primary ways:

Threshold Inhibition: It is the ability of an antiscalant to keep supersaturated solutions of sparingly soluble salts.

Crystal Modification: It is the property of an antiscalant to distort crystal shapes, resulting in soft non adherent scale. As a crystal begin to form at the sub microscopic level, negative groups located on the antiscalant molecule attack the positive charges on scale nuclei interrupting the electronic balance necessary to propagate the crystal growth. When treated with crystal modifiers, scale crystals appear distorted, generally more in oval shape, and less compact.

Dispersion: Dispersancy is the ability of some antiscalants to adsorb on crystals or colloidal particles and impart a high anionic charge, which tends to keep the crystals separated. The high anionic charge also separates particles from fixed anionic charges present on the membrane surface.

RO MEMBRANE CLEANERS - DESCLANTS

RO membrane cleaning is an important part of any reverse osmosis maintenance program. Effective cleaning usually requires some knowledge of the type of foulant and the cleaning options available. Foulants on the membrane surface can cause flux loss (permeate flow), an increase in differential pressure, higher product water conductivity, a need for increased feed pressure to maintain output or a combination of these effects.

RO Descalants are proprietary blend of mono-polymers and cleaning compounds. The cleaning compounds attack the organic and inorganic fouling. The polymers protect the membrane surface from damage which can be caused by the harmful cleaning chemicals.

SALIENT FEATURES

- High purity product - synthetic grade.
- Fast acting - effective in removing a wide range of scales and deposits.
- Does not contain any harmful metal corrosion inhibitor which might adversely affect membrane performance.
- Concentrated solution.

Feed water to membrane systems often has been treated with chlorine to retard microbiological growth prior to the membrane separation process. This chlorine, however, can irreversibly damage many thin film composite membranes. RO Descalants are blend of high-performance synthetic compounds, used for de-chlorination of RO feed water.

BIOCIDES

In laboratory tests a maximum tolerable microbial population limit in systems is determined. When these data are known in many cases the number of bacteria and other microorganisms needs serious reduction.

This can be accomplished by addition of biocides; chemical compounds that are toxic to the present microorganisms. Biocides are usually slug fed to a system to bring about rapid effective population reductions from which the microorganisms cannot easily recover.

There are various biocides, some of which have a wide range of effect on many kinds of bacteria. They can be divided up into oxidizing agents and non-oxidizing agents.

Biocides are widely used for oil production, medical care, bio-chemical, leather treatment, tanning agents, protein cross-linking agent; in the preparation of heterocyclic compounds; also used for plastics, adhesives, fuels, perfumes, textile, paper making, printing; corrosion prevention of instruments and cosmetics etc.

We provide biocides like Benzalkonium Chloride (BKC), Glutaraldehyde, Isothiazolinones and Carbamates in its pure and formulated mixture in dilution form as per the application.

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SALIENT FEATURES

- Minimizes Microbiological deposition
- Removes bad odour
- Reduces cleaning cycles and cleaning frequencies
- Restores and prolongs membrane life
- Maintains system performance
- Reduces time

PRODUCT RANGE

1. HYDRA 333
2. HYDRA 555
3. HYDRA 777
4. pH BOOSTER