



General product information

DEQUEST® SPE 0111 is a multifunctional antiscalant for Reverse Osmosis (RO), nanofiltration (NF) and Electro-dialysis Reversal (EDR) systems. It is highly effective in preventing calcium carbonate scale on membrane surfaces. Besides its excellent calcium carbonate scale inhibition DEQUEST® SPE 0111 is effectively controlling calcium sulphate, calcium fluoride and metal oxides scale. DEQUEST® SPE 0111 has approvals from major membrane manufacturers. DEQUEST® SPE 0111 is certified to ANSI/NSF Standard 60 for the production of potable water by reverse osmosis, nanofiltration and EDR systems.

Physical and chemical product properties

The following are typical properties for DEQUEST® SPE 0111. A product specification is available on request.

Appearance	clear, pale yellow liquid
pH (25°C)	10.5
Boiling point	> 100°C
Specific gravity (20 °c)	> 1.14
Flash point	non-flammable aqueous solution

Chemical reactivity

DEQUEST® SPE 0111 is not affected by chlorine or other oxidizing biocides. SPE 0111 should be injected in membrane systems after chlorine and sodium metabisulphite treatment. DEQUEST® SPE 0111 is not compatible with residual cationic polymers from the pre-treatment.

Application and dosage level

The dosage level of DEQUEST® SPE 0111 is dependent on the quality of the feedwater and the saturation indices of the various scales forming species present in the concentrated brine.

Recommended injection point is into the feedwater, downstream of any filtration equipment and cartridge filters.

*DEQUEST® phosphonate are highly stable organic chelating and scale control agents which form stable soluble complexes with metal ions. They prevent water hardness ions (Ca⁺⁺ and Mg⁺⁺) and other trace metal ions to hinder the efficacy of cleaning agents. On top of their protecting role, phosphonates participate to the cleaning process by loosening and dispersing the dirt. Of special interest is the capability of phosphonate to prevent scale deposit while formulated at low level. This ability to control scale formation at sub-stoichiometric level is known as threshold scale inhibition.

DEQUEST® SPE 0111 is miscible with water in all proportions. It may be applied as neat product, or as a solution in permeate water. A minimum dosing solution strength of 10% is recommended. DEQUEST® SPE 0111 should be dosed continuously and proportionally to the feed water flow.

Health and safety

DEQUEST® SPE 0111 is classified as non-toxic. A Material Safety Data Sheet is available on request.

TRANSPORT INFORMATION	
Rail/Road	Not regulated
Sea	Not regulated
Air	Not regulated

Packaging and shelf life

DEQUEST® SPE 0111 is available in 25 kg pails, 290 kg drums and 1.350 kg IBC.

Shelf life of DEQUEST® SPE 0111 is 2 years under normal handling and storage conditions.



More information

If you would like to obtain more detailed information about DEQUEST[®] products or are interested in obtaining a sample for evaluation in your system, please contact your nearest Italmatch Chemicals S.p.A. representative or visit our website: <http://www.dequest.com>