



General product information

DEQUEST® SPE 0108 is a multifunctional antiscalant for Reverse Osmosis (RO), nanofiltration (NF) and Electro-dialysis Reversal (EDR) systems. It is highly effective in preventing silica scale on membrane surfaces.

Besides its excellent silica scale inhibition DEQUEST® SPE 0108 is effectively controlling calcium carbonate, strontium sulphate, barium sulphate, calcium fluoride and metal oxides scale.

DEQUEST® SPE 0108 has compatibility approvals from major membrane manufacturers. DEQUEST® SPE 0108 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 0108. A product specification is available on request.

Appearance	clear yellow liquid
pH	2.5
Boiling point	> 100°C
Specific gravity (20 °c)	1.23
Flash point	non-flammable aqueous solution

Chemical reactivity

DEQUEST® SPE 0108 is not affected by chlorine or other oxidizing biocides. DEQUEST® SPE 0108 should be injected in membrane systems after chlorine and sodium metabisulphite treatment. DEQUEST® SPE 0108 is not compatible with residual cationic polymers from the pre-treatment.

Application and dosage level

DEQUEST® SPE 0108 is an aqueous solution and corrosive in its concentrated form. Corrosion resistant dosing equipment must be used. Suitable materials are PVC, glass lining, glass reinforced plastic, PP or HDPE.

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

*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.

Recommended injection point is into the feedwater, downstream of any filtration equipment and cartridge filters housings. DEQUEST® SPE 0108 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 0108 should be dosed continuously and proportionally to the feed water flow.

Health and safety

DEQUEST® SPE 0108 is classified as non-toxic. A Material Safety Data Sheet is available on request.

TRANSPORT INFORMATION	
Rail/Road	ADR/RID Class: 8 Packing Group: III Hazchemcode: 2X Kemler: 80
Sea	UN Class: 8 UN n°: 3265 Packing Group: III
Air	ICAO/IATA Class: 8

Packaging and shelf life

DEQUEST® SPE 0108 is available in 25 kg pails, 250 kg drums and 1.200 kg IBC.

Shelf life of DEQUEST® SPE 0108 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>

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