

Performance:

Vitec[®] 4000 antiscalant offers a variety of critical performance and application benefits:

- Protects membranes from silica scale when used in accordance with published limitations of 2x Ksp SiO₂ in the RO concentrate.
- Certified by NSF International under ANSI/NSF Standard 60 for use in systems producing potable water.
- Powerful inhibitor against a variety of carbonate and sulfate scale:

CaCO ₃	CCPP>900 (LSI>2.5)
CaSO ₄	3.5xKsp
BaSO ₄	105 x Ksp
SrSO ₄	20 x Ksp
CaF	1000 x Ksp
SiO ₂	2 x Ksp

- Dispersant qualities reduce colloidal and silt fouling of membrane surfaces.
- Excellent dispersant for alum particles.
- Compatible with all leading membranes.

Vitec[®] 4000 is a proprietary liquid antiscalant designed to inhibit silica, sulfate, and carbonate scales and disperse colloidal particles in cellulose acetate and polyamide membrane separation systems.

This formulation is unique in that it inhibits silica scaling at higher concentrations than typical antiscalants, a feature which may allow significantly increased RO system recovery in high silica feedwaters. It retains its performance even in RO concentrate streams containing up to 4 ppm of ferrous iron.

Vitec 4000 has been certified by NSF International and approved by the UK Secretary of State for use in systems producing drinking water.

Application:

Optimum Vitec 4000 performance is achieved when the chemical is injected downstream of multimedia filters and upstream of cartridge filters. In systems using sulfuric acid (H₂SO₄), the best results are obtained when the acid is injected far enough upstream to ensure it is adequately mixed prior to the Vitec 4000 injection point.

Dosing Guidelines:

Typical dosage ranges are between 2 to 5 ppm. A site-specific dose can be determined using the **Avista Advisor** computer program.

Like any injected chemical, over or under dosing may cause unnecessary membrane system fouling. Please contact Avista customer service for advice.

Dilution:

The maximum dilution for Vitec 4000 should not exceed 10%. This guideline will protect the effectiveness of the internal bacteriostat, which inhibits bacterial growth within the drum and feed tank.

Packaging and Storage:

Standard regional pack sizes are listed below. Custom packaging can be provided worldwide to meet customer needs. Information on drumless or bulk tanker delivery is available on request.

Specifications	
Appearance:	Light amber liquid
pH (as supplied):	4.5 – 6.5
Specific Gravity@20°C:	1.1 - 1.2

Packaging Formats	Americas	EMEA
Pails	45 lbs	23 kg
Drums	500 lbs	230 kg
IBC's (totes)	2500 lbs	1100 kg

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CERTIFIED BY NSF INTERNATIONAL TO NSF/ANSI 60 AS STANDARD DRINKING WATER TREATMENT CHEMICAL FOR USE IN REVERSE OSMOSIS SYSTEMS AT A MAXIMUM LEVEL OF 7 mg/l.

