



MetaGuard™ antiscalant/dispersant is a high performance powder chemical pretreatment that controls inorganic salts, metal hydroxides, silica, and colloids in RO feedwater. Its unique performance characteristics provide users with more complete control of system feed water chemistry, reducing membrane fouling and minimizing cleaning requirements. MetaGuard™ is compatible with all membrane types and system components.

Features / Benefits

- Phosphate-free formula reduces negative impact on the environment
- Stable molecular structure maintains integrity in high pH, high temperature and high salinity applications
- Classified for use in membrane systems producing drinking water (ANSI/NSF Standard 60)

Uses

- Control of calcium carbonate, calcium sulfate, barium sulfate, calcium fluoride, silica, and hydroxides of iron and aluminum
- Can be blended with other pretreatment formulations from Professional Water Technologies™ to reduce chemical dosing equipment

Specifications

Appearance	White powder
pH (4% solution)	2.0 - 2.5

Packaging

Jar: 1.8 lbs/ 0.82 kg

Pail: 40 lbs/18.2 kg

Pail: 20 lbs/9.09 kg

For special packaging options, please contact PWT or your local distributor.

MetaGuard™
POWDER REVERSE OSMOSIS ANTISCALANT

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General Mixing & Application Instructions for MetaGuard™

1. Typical dose rates are 2.0 to 6.0 mg/l (of 4% solution).
2. Call Professional Water Technologies™ or your local distributor for custom chemical dosing report.

ProDose XPRT™ – Scaling Prediction Software

PWT proprietary scaling prediction software, ProDose XPRT™ provides immediate dosage capabilities for our specialty chemicals. The software can create cases to study multiple operating conditions, and directly enter concentrate analyses leading to the optimal selection of PWT product and dosage. ProDose XPRT™ can generate complete and comprehensive reports detailing the scaling projections.

*ProDose XPRT™ is available upon request only.
Please contact your PWT representative for more information.*

The screenshot displays the ProDose XPRT software interface. At the top, it shows the Professional Water Technologies logo and a navigation bar with various settings: UNITS SELECTED (Metric), TEMPERATURE UNIT (Celsius), PERMEATE FLOW (0.75), SYSTEM RECOVERY (75%), ANTISCALANT SELECTED (SpectraGuard Liquid), ANTISCALANT DOSAGE (2.95 PPM), WATER TYPE (Well Water), PROJECT NAME (PWT ProDose), and CASE NUMBER (1). The main interface is divided into several sections: PROJECT INFORMATION, WATER QUALITY, SYSTEM INFORMATION, CHEMICAL SELECTION, CALCULATIONS, and REPORT. The WATER QUALITY section is active, showing STREAM INFORMATION (STREAM COUNT: 0, CURRENT STREAM: 0), FEED PARAMETERS (TEMPERATURE: 77.0, pH: 7.20, TDS: 759), and ION CONFIGURATION (SHOW FEED selected). The IONS section is expanded, showing FEED CATIONS and FEED ANIONS. The FEED CATIONS table lists ions like Ca, Mg, Na, K, NH4, Ba, Sr, Fe, Mn, and Al with their respective concentrations in mg/L, meq/L, and ppm CaCO3. The FEED ANIONS table lists ions like HCO3, Cl, SO4, F, NO3, PO4, and SiO2 with their respective concentrations in mg/L, meq/L, and ppm CaCO3. A 'Balance OK' button is visible in the ION CONFIGURATION section.

IONS	mg/L	meq/L	ppm CaCO3
Ca	97.20	4.8503	242.73
Mg	23.45	1.9296	96.57
Na	85.39	3.7142	185.88
K	4.67	0.1194	5.98
NH4	0.00	0.0000	0.00
Ba	0.0900	0.0013	0.07
Sr	0.1000	0.0023	0.11
Fe	0.34	0.0122	0.61
Mn	0.01	0.0005	0.03
Al	1.34	0.1490	7.46
Total	212.59	10.7789	539.43

IONS	mg/L	meq/L	ppm CaCO3
HCO3	284.56	4.6642	233.42
Cl	107.51	3.0327	151.77
SO4	120.00	2.4984	125.03
F	0.49	0.0258	1.29
NO3	12.34	0.1990	9.96
PO4	0.00	0.0000	0.00
SiO2	21.2100	0.3530	17.67
CO2	0.18	0.0059	0.30
CO3	39.25	0.8913	44.60
Total	546.29	10.7791	539.44