

# RO Chemicals

## Antiscalant Chemical

Pure Aqua's **PA0100** antiscalant chemical offers superior quality performance characteristics over a wide range of applications. The antiscalant chemical from Pure Aqua, Inc. is designed to eliminate scale and reduce fouling in membrane systems. Pure Aqua's **PA0100** is a liquid antiscalant/dispersant blended to inhibit scale and disperse colloidal particles in cellulose acetate and thin film membrane separation systems. The formulation has been certified by the National Sanitation Foundation (NSF) under ANSI/NSF Standard 60 for use in producing potable water.



### Performance

- Powerful inhibitor against a variety of scales including:

$\text{CaCO}_3$	CCPP $\leq$ 900 (LSI $\leq$ 2.8)
$\text{CaSO}_4$	3.0 x Ksp
$\text{BaSO}_4$	105 x Ksp
$\text{SrSO}_4$	20 x Ksp
$\text{CaF}_2$	1000 x Ksp
$\text{SiO}_2$	120 ppm

- Highly effective at low dose rates in a wide range of feed water types and pH ranges
- Compatible with polyelectrolytes
- Provides both scale and inorganic fouling control
- Compatible with all membrane types
- Certified under ANSI/NSF Standard 60

### Application

**PA0100** performance is optimized when the chemical is injected upstream of the membrane system and cartridge filters.

### Dosing Guidelines

The typical dosing range is between 2 to 10 ppm.

### Dilution

If dilution is required, **PA0100** should be diluted with de-mineralized water or RO permeate. If neither of these water sources is available, softened water may be substituted. **PA0100** should not be diluted to less than 10% by weight.

### Packaging and Storage

Standard regional pack sizes are listed below. Custom packaging can be provided worldwide to meet customer's needs. Information on drum-less or bulk tanker delivery is available upon request.

### Packaging Specifications

Packaging formats	Americas	EMEA
Pails	45 lbs. (5 gal)	21 kg. (18.9 L)
Drums	500 lbs. (55 gal)	227 kg. (208 L)
IBC's (totes)	2,500 lbs. (275 gal)	1,130 kg. (1,041 L)

### Chemical Specifications

Appearance	Clear yellow liquid
Odor	Odorless
pH (2% solution)	5.0 - 6.5
Specific gravity @ 20°C	1.1 ± 0.05

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**PA0100**  
CHEMICAL

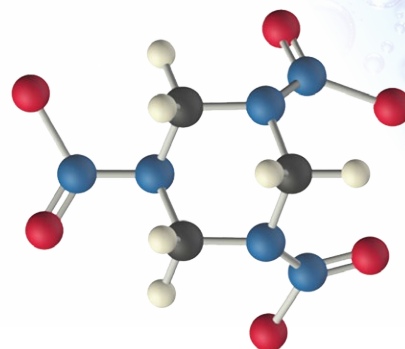
**PA0100 improves the performance and solves fouling problems in your membrane system.**

Pure Aqua's PA0100 antiscalant is very versatile and will control scale in most applications treating naturally occurring feed water.

Contact Pure Aqua with your water chemistry and operating conditions to determine & solve the membrane fouling issues.

### Advantages of using PA0100 antiscalant:

- Reduces membrane cleaning frequency
- Eliminates acid injection
- Controls iron, silica, and mineral scale
- Extends membrane life
- Lower operating and capital costs
- Does not react with other chemicals
- Certified under ANSI/NSF Standard 60



**PA0100** antiscalant is used to process very poor quality feed water at very high rates of recovery. When used properly, PA0100 extends the time between membrane cleanings from a few weeks to years in some cases. Without antiscalant, membrane systems would not be as successful serving the water treatment industry.

### Other RO Chemicals from Pure Aqua Membrane Cleaners

Regular chemical cleaning of RO membranes will ensure that they continue to perform and extend their useful life. The key factor with cleaning is to do it before the situation gets too bad, because if you wait too long, the membrane may become irretrievably fouled. Cleaning should be undertaken when either the normalized permeate flux is reduced by 10 - 15% or, when the differential pressure decreases. Depending on the characteristics of the water supply, membrane fouling may be inorganic, organic, colloidal or microbiological in nature and often a combination. Each type of fouling or scaling requires a different cleaning strategy.

**PAClean-HPH** is an alkaline reverse osmosis membrane cleaner for removing fouling caused by organic, biological and colloidal fouling of RO and UF membranes.

**PAClean-LPH** is a mildly-acidic RO membrane cleaner for removing fouling caused by iron salts, oxides and hydroxides. It can also be used to remove calcium carbonate scaling.



Cleaning system is used to clean membranes with Pure Aqua's PAClean-LPH and PAClean-HPH



 **Pure Aqua, Inc.**<sup>®</sup>

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