



PERFORMANCE BENEFITS: *Green*

- A specialized blend of additives to dissolve organic foulants and disperse colloidal particles.
- Environmentally friendly and free of EDTA and phosphate.
- Foam fractionated for superior performance.
- Highly buffered to resist pH changes during the cleaning process.
- Compatible with the polyamide elements of all major membrane manufacturers.

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Please consult your sales representative for further technical or logistical details and always review the SDS before use to ensure suitable safety precautions are followed.

CORPORATE OFFICES

Avista Technologies, Inc.



Avista Technologies (UK) Ltd

AvistaClean® P611 *Green*

CLEANER

RO/NF

AvistaClean® P611 powder is a multicomponent, high pH buffered cleaner that is free of phosphate and EDTA.

It is effective against foulants commonly found in waste water reuse plants and landfill leachate systems, including hydrophobic organic foulants, bioslime, clay and colloidal silica. AvistaClean P611 is highly buffered to resist pH changes during the cleaning process, and is NSF certified for off-line use in drinking water systems. This cleaner is ideal for sites with strict environmental discharge limits.

INSTRUCTIONS FOR USE

Cleaning

Below is a summary of the AvistaClean P611 cleaning procedure. For more detail, please refer to our technical bulletin, "Cleaning Spiral Wound Membrane Elements."

1. Fill the cleaning tank to the desired volume with reverse osmosis (RO) permeate or deionized water. Heat the solution to the maximum acceptable temperature (according to the membrane manufacturer's guidelines), as this will dramatically increase cleaning efficiency. Add sufficient AvistaClean P611 powder to create a 2% wt/wt solution if the fouling is moderate to severe or a 1% wt/wt solution if the fouling is mild. Recirculate the solution through the cleaning tank to ensure adequate mixing.
2. Run the cleaning solution through each RO system stage, one at a time, for a minimum of 60 minutes at the flow rate recommended by the membrane manufacturer. If that rate is not known, use these guidelines:

Element Diameter, inches	Flow Rate per Vessel, gpm (m ³ /hr)
4	10 (2.4)
8	40 (9.0)
3. If the recirculated cleaning solution becomes discolored or turbid due to severe fouling on membranes, discard as much as 15% of the solution volume. Heavily fouled elements may also benefit from a soak period (up to 8 hours).
4. Monitor the pH of the solution during the cleaning process. If the pH remains in the desired range and the solution is not turbid, it may be used to clean subsequent stages. In the unlikely event that the pH falls, prepare a new batch and repeat steps 1-4.
5. When cleaning is complete, rinse the membranes by flushing RO permeate through each pressure vessel. The system can then be returned to service.

PRODUCT INFORMATION

Packaging and Storage

Standard regional pack sizes are listed below. Information on drumless or bulk tanker delivery is available on request.

SPECIFICATIONS

Appearance: White powder

pH (2% solution): 10.8-11.3

PACKAGING FORMAT	AMERICAS/ ASIA	EMEA
Pail	45 lb	20 kg
Carboy	90 lb	-
Drum	350 lb	-