REVERSE OSMOSIS CLEANERS

# **RoClean<sup>™</sup> P112**

# High pH Powder Cleaner

# **APPLICATIONS**

RoClean™ P112 powder is a multicomponent, high pH buffered cleaner specifically formulated to remove silica scale more safely than hydrofluoric acid and ammonium bifluoride solutions, which are potentially hazardous. This product is also effective against severe aluminum silicates scaling and stubborn organics. RoClean P112 is NSF approved.

### **CLEANING**

Below is a summary of the RoClean P112 cleaning procedure.

- 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 RoClean P112 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.** CIP should be performed for 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 (m³/hr)	
4	10 (2.4)	
8	40 (9.0)	

- **3.** At the beginning of the cleaning process allow 15% of the initial cleaning solution to go to drain. If there is not enough tank volume, add 15% of the 1% or 2% cleaning solution. If the membranes are heavily fouled and the cleaner has extreme high color or suspended solids, dispose of the chemical and remake the cleaning solution.
- **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, add more cleaner, or 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.

# CHEMICAL AND PHYSICAL PROPERTIES

CHARACTERISTICS	DATA	
Appearance	White, free-flowing powder	
pH (1% solution)	12.0 – 12.9	

# PERFORMANCE BENEFITS

- A proprietary blend of dispersants, low foaming surfactants and chelants that dissolves silica scale and aluminum silicates and breaks up stubborn organics.
- Highly buffered to resist pH changes during the cleaning process.
- Compatible with polyamide membranes from all membrane manufacturers.
- Suitable for use with other Avista<sup>™</sup> cleaners.

# PACKAGING AND STORAGE

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

PACKAGING FORMAT	AMERICAS	ASIA	EMEA
Pail	45 lb	20 kg	20 kg
Carboy	100 lb	45 kg	-
Drum	350 lb	150 kg	-



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.



RoClean™ P112 PRODUCT INFORMATION

# **GLOBAL HEADQUARTERS**

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