

Biological fouling of reverse osmosis membranes is one of the most challenging issues faced by operators of membrane separation systems. This is primarily due to the fact that effective biocides must be non-oxidising in order to avoid permanent damage of the polyamide RO membrane layer.

Avista biocides are available to control these organisms whether it be through continuous dosing, intermittent dosing or periodically via a CIP system. Avista Technologies will provide assistance in selecting and optimizing the most appropriate dosing regime for your system.

Avista Technologies provides two types of biocides for use in reverse osmosis systems, RoCide® DB20 and RoCide® IS2. Both formulations are non-oxidizing and EPA registered. They are safe for use with both polyamide and cellulose acetate membranes. However, they are not for online use in systems producing potable water. Both have outstanding environmental properties, degrading rapidly and naturally. This property has made them the chemical of choice, especially for systems operating under strict environmental and discharge regulations.



Shock Treatment and RO Cleaning Applications:

RoCide® DB20 or RoCide® DB5 is used as an intermittent feed for "shock treatment" control or it can be applied as a 'pre-treat' cleaning solution to kill bacterial fungi and algae in membrane systems.

Continuous Injection Biocide:

RoCide® IS2 is a broad-spectrum formulation for use against microbiological contaminants commonly found in RO applications including bacteria, fungi, and algae. RoCide® IS2 is designed for continuous injection into the RO feed stream to provide constant biological control.

It can also be applied as a short or long term membrane preservative or as an intermittent dose.

Product Name	Effective Against			CIP	Continuous Dosing	Shock Dosing	Membrane Compatible
	Bacteria	Fungi	Algae				
RoCide® DB5	X	X	X	X		X	X
RoCide® DB20	X	X	X	X		X	X
RoCide® IS2		X	X		X		X



See Also:

Individual product datasheets for particular properties and application notes for each product.
Technical support section which provides information on how biocides work, a guide to selecting and optimising biocides and advice on cleaning bacterially fouled systems.

The **Avista Advisor 3** software is also available to allow you to estimate your required biocide dose.

Avista Technologies can carry out bacterial analysis (ATP or dip slide) in support of biocide optimisation.

Product approvals have been granted by water regulators, membrane manufacturers and industry bodies. Please contact your local representative for up to date information.

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