

Stabilized Halogen Based Biocides for RO Membrane Application

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Abstract : Biofouling is major issue in Reverse Osmosis (RO) membranes operation. To address the biofouling issue in raw water as well as wastewater recycle / reuse application requires effective biofouling control program. Current biocides (2,2-dibromo-3-nitrilopropionamide, isothiazolinone) are costly and hence often under-dosed. The membrane compatibility, as well as the microbio efficiency of the RO membrane biocide was studied. Based on the biofouling potential, the biocide product and it's dosage was studied. It was found that these products need to be dosed continuous as well as intermittent dosage based on the microbio load. This study shows that depending on the application and microbio fouling potential, products can be chosen to mitigate the biofouling issues and improve the RO membrane performance.

Keywords : reverse osmosis membrane, biofouling, biocide, stabilized halogen

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