KURIVERTER IK-110

Slime Control Agent for Membrane Systems

Product Description

Kuriverter® IK-110 is a highly effective slime control agent which provides excellent biofilm removal and control in membrane systems. **Kuriverter IK-110** has an excellent slime removing and dispersing effect. It is designed specifically for treating membrane systems, including reverse osmosis (RO), ultra-filtration (UF), membrane filtration (MF) and nano filtration (NF). In membrane systems, microbiological growth leads to biofilm forming on the membrane surfaces, which often causes a reduction of normalized flow through the membrane modules. The energy cost of increasing pump pressures to maintain flow can be significant. **Kuriverter IK-110** has proven to restore normalized flow, stabilize salt passage and reduce CIP cleaning frequency.

Kuriverter IK-110 is a liquid product based on stabilized chlorine compounds which will not deteriorate PA membranes.

Kuriverter IK-110 is registered with the U.S. EPA for use as a bacteria and biofilm control agent. For all approved applications, refer to the product label.

Features & Benefits

Increases Flow – Maintaining bioslime free membrane surfaces improves normalized flow, and reduces pressure needed to drive water through membranes. Ultimately this reduces energy costs and extends membrane life.

Compatible – Has been tested and approved by all major membrane manufacturers.

Effective – Improves operational efficiency and minimizes need for off line cleaning.

Economical – Use of KURIVERTER IK-110 usually results in reduced overall cost of operation.

Physical Characteristics

Appearance:	Clear to light yellow Liquid
Spec. Gravity (20°C):	1.2 – 1.4
Density (20°C):	10.8 lbs / gallon
pH (20°C):	> 13.0
Water Solubility:	Complete
Freeze Point:	32°F (0°C)

Revision Date: April 1, 2025

Dosage

Kuriverter IK-110 is applied to membrane systems by using a metering pump directly into the supply water. The actual dosage is dependent on the operational condition of the system and should be determined with the help of a Kurita representative.

The recommended product concentration range in the RO supply water is between 10 to 15 mg/l. The best results will be seen if this dosage is fed continuously. EPA label approvals allow a total chlorine residual of between 0.1 – 10.0 mg/l in the supply water to the membrane system. Total chlorine residual of 0.5 - 2.0 mg/l in the supply water will be sufficient for most applications.

In cases where high biofilm contamination is known to exist in the membrane system, it is advisable that the membrane system is cleaned off-line using an alkaline / surfactant product, followed by flushing to remove organic debris. A CIP cleaning will dissolve much of the biofilm. This will reduce the potential for plugging when Kuriverter IK-110 is added and lifts the remaining biofilm from the membrane surface. The starting dosage of Kuriverter IK-110 in this situation would be between 15 – 25 mg/l continuously, until the normalized flow and operating pressures are restored. Never exceed 10 mg/l total chlorine in the supply water. Reduce total chlorine to 0.5 – 2.0 mg/l once normalized flow is restored.

Continuous feed of Kuriverter IK-110 is recommended for best results. If this is not possible, then intermittent feed is acceptable. Feed to achieve a total chlorine residual of between 0.1 – 10.0 mg/l in the supply water to the membrane system for at least 4 – 6 hours per day. Total chlorine residual of 0.5 - 2.0 mg/l in the supply water will be sufficient for most applications.

Recommended Feed Systems

Kuriverter IK-110 should be added undiluted. It is highly recommended to feed the product continuously as a preservative against microbiological growth. In systems with low contamination, intermittent use can be sufficient.

Available Packaging

Net weight:

275 Gal Tote:	2965 pounds
55 Gal Drum:	594 pounds
30 Gal Drum:	324 pounds
5 Gal Pail:	54 pounds

Material Compatibility

Pumps should be made of 304 or 316 Stainless Steel, Hastelloy C, PTFE, PVC, PP, PE or FPM. Pipes and storage tanks should be made of PTFF, PVC, PP, PE or FPM.

Brass and carbon steel should not be used.

For more information contact our equipment department.

Storage and Handling

Kuriverter IK-110 should be stored in the original container away from incompatible materials. To maximize shelf life, store in a cool, dry, well ventilated area. It is important to minimize exposure to sunlight or other bright light, as this will degrade the product.

As product ages, activity is gradually lost, and nitrogen pressure can build up in headspace. Therefore, the product should always be stored in vented containers.

Proper storage at ambient temperatures (< 80 Degrees F) and protection from its sunlight ensures this product retains 95% of its initial activity for at least one year.

Read SDS prior to opening container.