

# Disinfecting RO Systems

**Huwa-San W Product of Huwa-San Technology**

**Your Insurance to Sanitized Water**

Roam Chemie from Belgium would like to introduce to you Huwa-San W which is an ecological environmental friendly disinfectant that comes in a transparent liquid form made of Hydrogen Peroxide and Silver, and used in different water application fields.

Tasteless, odorless, colorless, and leave no harmful chemical residues after disinfection, Huwa-San W can be used to successfully sanitize drinking water, processed water, water tanks, bottled water lines and packaging, besides all types of surfaces and floors and production lines.

Roam Chemie has always invested intensively in its R & D department to extensively test its products under the supervision of a team of experts to ensure that all its products are safe for human beings and animals in addition to the environments and provide the best quality for all its markets. As a proof, Huwa-San is certified in 35 different countries and sold in 50 countries around the world.

**Disinfecting  
RO Systems  
With  
Huwa-san Technology**

**Introduction:** Huwa-San Technology has been used successfully for disinfecting reverse osmosis (RO) systems use membranes.

These **Huwa-San W** solutions come in a concentrated form and are diluted 1:100 with RO permeating to obtain a 0.25 percent peroxide solution. RO system membrane has been disinfected once weekly by soaking overnight in diluted. There has been no indication of membrane degradation during this time.

There is two factors which greatly influence the rate of **Huwa-San W** on the membrane: temperature and iron. The disinfecting solution should be exceeding 25C (77F). Most of membrane samples tested with 0.5 percent at 34C showed a very light salt passage after several hours. At 24C however, membrane samples demonstrated compatibility with 0.5 percent after 96 hours.

The presence of iron or other transition metals in conjunction with **Huwa-San W** solution can also cause membrane degradation. **Huwa-San W** samples were tested using a 0.15 percent solution of **Huwa-San W** and tap water containing iron. After 150 hours, the salt passage of the membrane began to increase dramatically.

**Procedure:** for RO systems using the membrane, the following procedure for disinfection with or is recommended:

1. Any type of deposit on the membrane or other parts of the system should be removed with an alkaline cleaner before disinfecting. Removal of these deposits, which harbor microorganisms, will maximize the degree of disinfection. After alkaline cleaning, flush the system with RO permeates.
2. Clean the RO system with acid (e.g. 0.1 percent by volume hydrochloric acid or 0.4 percent by volume phosphoric acid) to remove any iron from the membrane surface. Flush the unit with RO permeates.
3. Circulate a solution of 0.20 - 0.25 percent **Huwa-San W** diluted with RO permeates at a temperature 25 C and below 25C (77F) for

20 minutes. In the wide range of pH **Huwa-San W** gives optimal biocidal results and longer membrane lifetime.

Allow the elements to soak in the disinfecting solution for 2-12 hours. A soak time of 2 hours would be expected to kill more than 99.9 percent of the bacteria, whereas a 12-hour soak time would achieve a 99.999 percent kill

For more information please contact us [www.huwa-san.com](http://www.huwa-san.com).

**Under the requirements of international quality systems kindly ask the supplier for the global and local quality, registration and accreditation certifications to make sure you are getting the original products**  
**Roam Chemie Belgium (Huwa - San since 1985)**