# WATER TREATMENT CHEMICAL REDUCING AGENT

# **Description and Use**

Hydrex 4301 is a food grade liquid product used as reducer, removing dissolve oxygen and residual free and combined chlorine.

It is specially formulated for reverse osmosis systems with polyamide membrane where presence of chlorine can deteriorate the membranes.

As reducing agent, it can be applied for low and medium pressure boiler feed water, as oxygen scavenger.

### **Advantages**

- Food grade quality, free of any impurities
- Cost-effective concentrate
- Easy to use liquid formulation

## **Application Information**

When RO or NF membranes are used in the process, the feed must be dechlorinated to prevent oxidation of the membrane. Dosage rate will be dependent upon the level of free chlorine present in the water system. The suitable dose is 10 ppm of Hydrex 4301 for each ppm of active chlorine.

Although the dechlorination itself is rapid, good mixing is required to ensure completion. Static mixers are recommended. The recommended injection point is downstream of the cartridge filters in order to protect the filters from chlorine. In this case, Hydrex 4301 solution should be filtered through a separate cartridge before being injected to the RO feed.

The absence of chlorine should be monitored using and oxidationreduction potential (ORP) electrode downstream of the mixing line.

For oxygen scavenger application in boiler feed water and other reducing application, please consult your VWS representative for detailed instructions.

## **Specification**

Appearance :

Colourless to Pale yellow liquid 1.30 – 1.40

↓ SG @25 oC :

pH (as supplied) : 3.0 - 5.0

Solubility in Water : Completely miscible

#### DISTRIBUTOR IN VIETNAM:

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### Materials Compatibility

Compatible storage materials are: stainless steel, polyethylene, polypropylene, PVC, glass and rubber.

### Packaging

Hydrex 4301 is supplied in 20 kg pails, 200 kg plastic drums and 1000 kg containers. Other packaging are available upon request.

Shelf life of Hydrex 4301 is 24 months from production date under normal handling and storage conditions.

### Safety Information

This product is corrosive to body tissue and must be handled with great care. Eye contact should be avoided and persons with sensitive skin who are repeatedly handling the concentrated product should wear gloves.

Ensure that the operator is fully informed and familiar with the use of the product.

Keep in a cool dry place. Avoid contact with oxidizing agents. Please refer to the Material Safety Data Sheet for more detailed information

### Publication

This product information is released on 4<sup>th</sup> Aug. 2017, to replace all previous versions of Hydrex 4301 product information document.

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