

## SW-OS100

# Oxygen scavenger for boiler water conditioning

### Principal applications:

SW100® is a boiler product which prevents oxygen corrosion in boiler systems up to an operating pressure of 40 bar.

SW100 contains only non volatile raw materials.

Therefore, it can be used in systems with high purity demands on steam quality.

SW100® is based on raw materials, which are listed in FDA § 173.310 as boiler water additives that may be safely used in the preparation of steam that will contact food.

### General Description:

SW100® is a blended liquid product based on a non volatile oxygen scavenger (Sulfite).

### Appearance:

Clear, light yellow liquid

**Density (20°C/68°F):**  $1.26 \pm 0.03 \text{ g/cm}^3$

**pH (1 % Solution):**  $6.1 \pm 0.2$

**Viscosity:**  $3 \pm 2 \text{ mPa/s}$

**Solubility in Water:** unlimited

**Sensitivity to Freezing:** below + 5°C

**SO<sub>3</sub><sup>2-</sup> - Content:** 20 %

### Effect on Environment:

For information please see material safety data sheet.

### Mode of Action:

SW100 offers a corrosion inhibition by scavenging the oxygen content in boiler water

respectively boiler feed water by means of sulfite.

To get an effective oxygen reduction, a continuously dosage of SW100® into the boiler feed water is absolutely necessary.

The product can be used in combination with other Ferrolux® products, e.g. SW100®.

SW100 contains a special stabilizer, which enables the user to mix the products on the site.

### Dosage:

The dosage depends on several system parameters (e.g. temperature of boiler feed water, concentration ratio, total hardness content) and should preferably be selected with the help of a Kurita representative.

Generally the detectable sulfite content in boiler feed water should be from 2 to 4 g/m<sup>3</sup>.

Approximately 20 to 25 g SW100/m<sup>3</sup> boiler feed water is necessary for neutralization of 1 g/m<sup>3</sup> oxygen.

Depending on the efficiency of the degazing system the dosage of SW100® should be 5 to 25 g/m<sup>3</sup> boiler feed water.

### Application:

SW100 should be added behind the degasing system. The product should be added by an automatic dosing system regulated by the quantity of boiler feed water.

All parts of the dosage system which come in contact with the product must be made of acid resistant material.

SW100® can either be added undiluted or in mixture with other SW100® products, e.g. SW100®. The mixture must be changed every 3 days.

SW100® is intended for industrial use only.

## PRODUCT INFORMATION – SW100

### Storing:

SW100® should be stored above 5°C. The container should be kept tightly closed.

### Analysis:

The sulfite content can be determined approximately by Merckoquant Sulfite Test Kit.

$1 \text{ g/m}^3 \text{ SO}_3^{2-} = 5 \text{ g/m}^3$ . ®

The exact determination can be made by iodometric titration, for reducing agents.

### Handling Precautions:

For information please see material safety data sheet.