



# CARETREAT 3 BOILER

## Advanced organic boiler water treatment to control pH, corrosion, scale and sludge formation

### DESCRIPTION

Caretreat 3 Boiler has been developed to meet the demands for modern, practical boiler water treatment. Caretreat 3 Boiler is a liquid blend of neutralized organic acids, corrosion, scale and sludge conditioners. Caretreat 3 Boiler is normally used only in conjunction with Caretreat 4 Condensate as part of the total treatment of the steam system on board.

### ADVANTAGE

- removes oxygen and elevates the pH to protect the feedwater system and boiler from pitting and general corrosion
- creates an iron tannate film to protect against general corrosion even during cold lay-up
- the advanced polymers take care of dispersing sludge and protection against scale
- environmentally safe, non-toxic product
- low conductivity contribution, saves water and energy
- simple and accurate testing
- effective under all operating conditions
- protects boiler surfaces by forming an iron tannate film

### APPLICATIONS

Caretreat 3 Boiler can be used in any type low and medium pressure boilersystem.

Caretreat 3 Boiler can be used in the following Make-up water:

- evaporated water
- reversed osmosis water
- demineralised water

- Eco-friendly
- Excellent corrosion protection
- Low product consumption
- Simple testing
- Marinfloc approved

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## DIRECTIONS FOR USE

### Standard water treatment:

Caretreat 3 Boiler can be added directly to the feed water. We strongly recommend this is done by using a dosing pump. It is also recommended to continually dose Caretreat 3 Boiler in conjunction with Caretreat 4 Condensate. Caretreat 3 Boiler and Caretreat 4 Condensate cannot be mixed, so there is a need for two separate dosing systems.

### Control limits

The boiler water must meet the following conditions:

|              |  |
|--------------|--|
| p-Alkalinity | : 100-280 ppm CaCO <sub>3</sub>                    |
| Chlorides    | : max. 300 ppm Cl (Low pressure boilers)           |
|              | : max. 100 ppm Cl (Medium pressure boilers)        |
| pH           | : 10.5 to 11.0                                     |
| Conductivity | : 400 to 2000 $\mu$ S/cm (Low pressure boilers)    |
|              | : 400 to 1000 $\mu$ S/cm (Medium pressure boilers) |

### Initial dosage

Caretreat 3 Boiler is dosed at 0,75 liters per metric ton boiler water. Allow the boiler water to be conditioned for 24 hours and then carry out a p-Alkalinity test. Adjust product dosage if necessary to obtain a p-Alkalinity of 100 - 280 ppm. At the same time determine the chloride content. If the chlorides are too high, give the boiler a top and bottom blow down in a ratio in time 2 to 1.

### Daily dosage

Recheck p-Alkalinity and increase dosage of Caretreat 3 Boiler if necessary to maintain pH or p-Alkalinity level. This dosage depends on the steam production. A minimum of 25 ml/ton steam produced should be dosed daily to maintain correct treatment levels in conjunction with regular top and bottom blown down.

## DOSING SYSTEMS

Marine Care supplies a complete range of dosing systems, from manual operated systems, to custom built computer operated high tech systems, for every application.

## PROPERTIES

|                |                        |
|----------------|------------------------|
| Article number | 14403                  |
| pH             | 12,5                   |
| Density        | 1,16 g/cm <sup>3</sup> |
| Flashpoint     | Not applicable         |
| Physical state | Liquid                 |

## APPROVALS

Marinfloc Approved OWS Compatible

For detailed information on safety and health, please refer to the Material Safety Data Sheet MSDS and/or product label.

This information is based on data that we believe to be accurate and reliable and is intended to be used by persons having the knowledge and skill to apply this product properly. We assume no responsibility for results or damages incurred from their use by the Buyer. No liability (including liability for negligence) will attach to Marine Care or its servants or agents arising out of or in connection with or in relation to this product information.

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