



**MARINE
CARE**

CARETREAT 4 CONDENSATE

Organic oxygen scavenger and corrosion inhibitor for feed, steam and condensate systems

- Environmentally friendly
- Excellent corrosion protection
- Low product consumption
- Simple testing
- According FDA
- Marinfloc approved

DESCRIPTION

Caretreat 4 Condensate is an oxygen scavenger based on neutralized organic acids and a blend of volatile/neutralizing amines. It is normally used in conjunction with Caretreat 3 Boiler as part of the water treatment program. It removes oxygen efficiently in open feed systems and gives effective corrosion inhibition of boiler/exhaust gas economizer system surfaces by converting Fe_2O_3 (rust) to an organic iron compound. It also protects copper based metals. The amines pass over with the steam and have the dual function of elevating the pH of the steam/condensate and putting a protective micro film on the system's pipe work. Acidic condensate is the result of carbonic acid (H_2CO_3) being formed as CO_2 is released in the steam. The use of Caretreat 4 Condensate prevents corrosion by carbonic acid on live systems. Its filming properties also reduce corrosion on shut down lines, when moisture and oxygen are present.

ADVANTAGE

- Environmentally safe, non-toxic product.
- Unique single product for corrosion control throughout the condensate system.
- Simple and accurate testing.
- Effective under all operating conditions.
- Protects boiler surfaces by forming an iron tannate film.

APPLICATIONS

Caretreat 4 Condensate can be used in any type low and medium pressure boiler system. Caretreat 4 Condensate can be used in the following make-up water types: evaporated water, reversed osmosis water or demineralized water.



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DIRECTIONS FOR USE

Caretreat 4 Condensate is dosed at a rate which maintains a pH of 9.0 to 10.0 in the condensate returns. Oxygen entrainment largely depends on Hotwell temperatures and if these are maintained at above 80 °C the condensate pH range of pH 9.0 to 9.5 is adequate. If Hotwell temperature control is irregular and averages less than 80 °C, tighter control is necessary and condensate returns should be kept in the range pH 9.5 to 10.0. It is not necessary to carry out oxygen or product residual tests.

Initial dosage

Caretreat 4 Condensate is initially dosed at 0,2 ltr/m³ boiler water. Systems showing signs of corrosion should be dosed at up to 0,7 ltr/m³ boiler water for the first few days in order to passivate all metal surfaces.

Daily dosage rates

After initial dose, the dosage depends on the quantity of steam production. A minimum of 15 ml/ton steam produced, should be dosed to maintain correct treatment levels in conjunction with regular top and bottom blown down and a correct condensate pH.

DOSING SYSTEMS

Caretreat 4 Condensate must be dosed continuously in conjunction with Caretreat 3 Boiler in a metering pump/tank unit, discharging directly into the feed system and/or the exhaust gas economizer circulating pump discharge. It must NEVER be slug dosed to a running system via a Hotwell or by-pass feeder.

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	14404
pH	10,5
Density	1,01 g/cm ³
Flashpoint	Not applicable
Physical state	Liquid

APPROVALS

- Caretreat 4 Condensate is according the FDA regulations for indirect food contact
- Marinfloc Approved OWS Compatible

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

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