

# MARINE CARE

## CARETREAT 2 DIESEL



#### Excellent:

- > corrosion inhibition
- > scale distortion
- > sludge dispersion
- Approved by:
  - > Marinfloc
  - > Major engine manufacturers

#### **DESCRIPTION**

Caretreat 2 Diesel is a liquid blend of nitrite, borate and polymer based corrosion inhibitors with a suitable buffer to ensure stable pH conditions.

Caretreat 2 Diesel protects the diesel cooling water system as well as any auxiliary cooling water system from corrosion, sludge formation and scale.

#### **ADVANTAGE**

- Suitable for slow, medium and high speed engines
- Effective corrosion inhibition on ferrous and non ferrous metals
- Prevents scale and sludge built up
- Approved by major diesel engine manufacturers

#### **APPLICATIONS**

Caretreat 2 Diesel can be used in multi-metal:

- diesel cooling water systems,
- compressor cooling water systems,
- general cooling water systems and central heating systems.

#### **DIRECTIONS FOR USE**

Starting with the treatment of a system, the nitrite level must be kept at the higher nitrite level of the corresponding chloride concentration by testing and dosing daily. If the system is passivated the testing frequency and dosing can be reduced to once a week. Always add Caretreat 2 Diesel at a point where the circulation is high. Most modern systems header tanks are purely for expansion and have little or no circulation. Also they are often fitted with an internal baffle which can have the effect of trapping treatment and subsequent difficulty in obtaining the correct levels. The majority of loss in treatment levels will be due to leakage and subsequent dilution by make up water (distilled water should always be used). We advise testing of the Caretreat 2 Diesel level with the Marine Care Cooling water test kit.



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Recommendations for cooling water treated with Caretreat 2 Diesel:

Nitrite 1500-3000 ppm NO<sub>2</sub>

Chloride max. 50 ppm Cl<sup>-</sup> (HT systems) Chloride max. 100 ppm Cl<sup>-</sup> (LT systems) Hardness max. 180 ppm as CaCO<sub>3</sub>

pH 9,0 - 10,0

#### Remarks

On new buildings or overhauled systems, follow engine manufacturer's advice or consult Marine Care. If changing to Caretreat 2 Diesel from nitrite borate based products of another make, start dosing Caretreat 2 Diesel using Marine Care tests. Caretreat 2 Diesel will slowly remove sludge and other residues during the first month. This can result in slightly cloudy water which will clarify after draining small quantities of water and as make up water is added, leaving the system extremely clean. It is not necessary to drain existing cooling water completely unless inspection has shown excessive contamination. Marine Care can give advice on cleaning systems.

#### Chloride

In general the chloride concentration of the cooling water should be kept below 50 ppm in HT systems and below 100 ppm in LT systems. For every 10 ppm chloride above 50 ppm, increase the nitrite concentration with 100 ppm. In case chloride concentration in a system is too high refresh (partly) the system with low chloride and low hardness water (distilled water). Refer to the engine manufacturer for the recommendations regarding chloride, sulfate and hardness concentrations.

#### **DOSAGE**

Caretreat 2 Diesel is used in a dosage of 1500 - 2500 mg/l nitrite (NO<sub>2</sub>), depending on the chloride level and system, please refer to the engine manufacturers instructions on recommended nitrite levels:

Chloride Concentration	Initial Dosage	Nitrite Level
0 - 50 ppm Cl <sup>-</sup>	6 - 10 ltr/m³ cooling water	1500 - 2500 ppm NO <sub>2</sub>
50 - 100 ppm Cl <sup>-</sup>	7-12 ltr/m³ cooling water	1750 - 3000 ppm NO <sub>2</sub>

#### **DOSING SYSTEMS**

Caretreat 2 Diesel is normally dosed by a timer based dosing system consisting of a timer operated metering pump, dilution tank and injector. *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**

pH (1 % solution) 11 - 11,4

Density 1,2 g/cm³

Flashpoint Not applicable

Physical state Liquid

#### **A**PPROVALS

- Approved by Wärtsilä, Sultzer, MAN, MAK and Caterpillar.
- Marinfloc approved OWS compatible
- · Approved by Norwegian Institute of Public Health

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



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