



OPTITREAT™

## DESCRIPTION

**OPTITREAT** is an advanced liquid boiler water treatment product, formulated with polymer scale inhibitors, alkaline compounds, phosphates and condensate-protecting amines. In addition to combining alkalinity control, scale inhibitors, and deposit control, **OPTITREAT** provides protection from corrosion.

It efficiently treats Boiler/Steam Water in System lines and Condensate. It provides an excellent and very practical way of treatment, using only one product.

Scale, corrosion and foaming are the main problems in Marine Boilers, due to the fact that when the water evaporates, precipitation of salts occurs rapidly.

If these salts were not treated they could be turned into very hard scale deposits, which would reduce the system ability to produce steam. This can result in a low volume of steam, which can delay critical operations on the vessel where steam is used as the 'driving force', and will certainly increase the cost of heating, as more fuel would be required to produce the same result. If the boiler water is not treated properly, this would be rapidly resulting in the whole system deterioration due to corrosion.

**OPTITREAT** controls the problems described above by achieving the appropriate chemical concentrations and their correct monitoring will maintain the system in a good working condition.

When properly dosed it creates the required Alkalinity and Phosphate concentration levels to avoid the acidic "attack" and salts precipitation respectively. Furthermore, it releases into the system a volatile amine inhibitor that circulates with steam in the tube lines, protecting the steel metallic surfaces and condensate system from Carbonic Acid "attack".

Along with the use of **OPTITREAT** the application of an Oxygen scavenger is required to completely remove the Oxygen dissolved in water, as this is the main cause of corrosion in the system. **OPTITREAT** can be combined either with **MARZINE PLUS** or **OXYBLOCK D**, two unique products that are both excellent Oxygen scavengers for boiler water treatment programs.

## CHARACTERISTICS, ADVANTAGES & APPLICATIONS

- ◆ One product does it all: a multi-functional complete treatment.
- ◆ Suitable for all type of boilers.
- ◆ Contains condensate-protecting volatile amines.
- ◆ Acts as a corrosion inhibitor, by passivating metal surfaces and preventing scale build-up in the boiler tubes.
- ◆ Raises the pH value level.
- ◆ Acts as an antifoam agent.
- ◆ Submerges suspended solids thus assisting in easy and efficient blowdown.
- ◆ Promotes efficient heat transfer conditions.
- ◆ It can be coupled either with **MARZINE PLUS** or **OXYBLOCK D** Oxygen scavengers.
- ◆ Cost effective, easy to handle and apply.

## PHYSICAL PROPERTIES

**OPTITREAT** is a liquid solution formulated with synthetic polymers, alkaline compounds, phosphates, condensate-protecting amines and antifoaming agents.

<b>Appearance/Color</b>	: Colorless liquid
<b>Specific gravity</b>	: 1.04 - 1.08 gr/cm <sup>3</sup> at 20°C
<b>pH value</b>	: 12.5 - 14.0
<b>Odor</b>	: Odorless

## PACKAGING

Order Number	: 673018 (30 ltrs)
Container	: Plastic jerrican

## APPLICATION AND USE

### A. Dosing Procedure

Initially, use 1-2 liters of **OPTITREAT** per ton of water. This dosage in distilled water, when heated, could create 100-200ppm of CaCO<sub>3</sub> as P-Alkalinity value (Table 1) and 15-25ppm of Phosphate ions concentration.

Thereafter, monitoring of the P-Alkalinity value must be performed using **WT ALKA TEST KIT** in order to control the product's dosage.

Monitoring of the pH value in the condensate is necessary, as a pH value in the range of 8.0 - 9.0 indicates that efficient treatment of the Carbonic Acid has been done.


**MARICHEM®**

The application of **OPTITREAT** in a well treated feedwater could result to a conductivity maximum value of about 800 microS/cm.

For optimum results, consult the **MARICHEM Ship's BWT Log Book** for boiler water treatment.

For details on the testing procedure, refer to **OPTITREAT** and **OXYBLOCK D** dosing chart or refer to **OPTITREAT** and **MARZINE PLUS** dosing chart, depending on the BWT program used on board the vessel.

Daily test results should be taken into account prior to regulating treatment by either additional chemical dosage or surface blowdown.

## B. Feeding Procedure

Once the dosing quantity is determined, **OPTITREAT** must be introduced to the boiler's water, continuously, using **Marichem's dosing system** or by using gravity feed flow meter, but this is not requested as volatiles can be lost when circulated water returns to the hot-well or cascade tank.

**TABLE 1: p-Alkalinity value vs OPTITREAT dosage rate**

p-Alkalinity value as ppm CaCO <sub>3</sub>	0 - 50	50 - 100	100 - 200	200 - 300	Over 300
Dosage of OPTITREAT (lt per ton of boiler water)	2	1	Satisfactory	Blowdown	Blowdown

## ! SAFETY AND HANDLING

<b>HANDLING</b>	Handle with care. Store in a dry, cool and well ventilated environment.
<b>SAFETY</b>	IMMEDIATE ACTIONS
<b>Eye Contact</b>	Avoid Eye contact. Otherwise, flush with plenty of water for a few minutes. Seek medical attention.
<b>Skin Contact</b>	Avoid Skin contact. Otherwise, wash contaminated area thoroughly with water. Seek medical attention.
<b>Inhalation</b>	Avoid inhalation of vapors. Otherwise, seek fresh air source at once. Seek medical attention.
<b>If Swallowed</b>	Avoid ingestion. Otherwise, consume a considerable quantity of water. Seek medical attention.
<b>GENERAL INSTRUCTIONS</b>	Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before use.

### Read the Material Safety Data Sheet before using this product.

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.

MARICHEM MARIGASES Worldwide Services or any subsidiary or associated companies warranties of merchantability and competence, if any, along with any expressed warranties concerning this merchandise, shall not be actionable or pertinent or effective if the good is used contrarily or differently to the directions herein and in no other way due to impending hazards from inappropriate use of the good explained herein. Merchandise might vary insubstantially depending on country of origin. The information provided concerning merchandise is exclusively presented to the customer.