



## PHOSPHATE™

### DESCRIPTION

PHOSPHATE is a highly soluble, powder compound significantly effective for the reduction of hardness and scale control in all types of boilers. The specific purpose is to allow the removal of all Calcium hard salts by blow down to a non-adherent soft sludge, whilst maintaining a natural level of phosphate concentration in the boiler water. This way proper hardness regulation is assured.

### ADVANTAGES AND CHARACTERISTICS

- ◆ Highly soluble, unlike ordinary sodium phosphates where solubility can be compromised in high temperatures.
- ◆ Maintains a regular phosphate balance, resulting in efficient hardness control.
- ◆ Removes calcium hardness by blow down.
- ◆ Cost effective, easy to apply and use.

### PHYSICAL PROPERTIES

PHOSPHATE is a dry powder product, which contains a selected Sodium phosphate derivative especially formulated to provide efficient hardness control.

Appearance/Color	: White, thin granulated powder
Solubility in water	: Completely soluble
Specific gravity	: 1.35–1.75 gr/cm <sup>3</sup> at 20°C

### PACKAGING

Order Number	: 672509 (25 kgrs)
Container	: Steel drum

### APPLICATION AND USE

#### A. Dosing Procedure

Initially, for an average boiler of 10tons water capacity, a quantity of 350–650grs must be used.

It is important to note that no more than 100–250grs of PHOSPHATE per 10tons water capacity will ever be required on a daily basis, especially when the boiler operates with distilled water make-up. However, daily test results should be taken into account prior to regulating treatment.

#### B. Sampling and Testing

Water samples must be drawn and tested periodically, using the **MARICHEM WT PHOSP TEST KIT**. To determine if use of PHOSPHATE is required, please consult evaluation chart and dosing procedure below.

Each sample should be taken every 24 hours from the special sampling valve.

If this is not possible, the samples should be taken from a point which can provide a representative sample of the entire system. Keep in mind, that this same point must be used for the regular testing, thereafter.

#### C. Feeding Procedure

Once the quantity of PHOSPHATE necessary to apply has been determined, the engineer must dissolve it in hot water at a ratio of 1/20 (1 part of PHOSPHATE to 20 parts of water).

Afterwards, feed to the boiler via a by-pass feeder or a chemical pressure feed pump.

In the situation where several boilers are involved, separate feed lines must be installed for each one in order to ensure that every boiler receives the right quantity for treatment.



## TEST RESULTS EVALUATION CHART

Concentration of Phosphate ions (PO <sub>4</sub> <sup>-3</sup> )				
TEST RESULT	0–10 ppm	10–20 ppm	20–40 ppm	Over 40 ppm
Quantity of PHOSPHATE to be added	30gr/tn of water	15gr/tn of water	Satisfactory	Blowdown

## NOTE

- ◆ For sample results less than 20ppm Phosphate ions concentration, supply the system with the prescribed dosage as in the chart above.
- ◆ For sample results greater than 40ppm Phosphate concentration, perform blowdown and supply with the initial dosage prescribed below.

## INITIAL DOSAGE

**PHOSPHATE:** 350–650grs/10 tons of fresh water.

## ! 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>GENERAL INSTRUCTIONS</b>	Avoid 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.

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