

## VAPPRO 5583 BOILER CLEANING AND BOILER-WATER TREATMENT CHEMICAL

Vappro 5583 is formulated for the cleaning of boiler and treating of boiler-water.



#### DESCRIPTION

The main constituents of boiler-scales are the oxides and salts of Fe, Cu, Ca, Mg, Co and Ni. These compounds originate from :

- · Corrosion of metallic parts of the boiler
- Condensate
- · Residual hardness of the boiler-feed water

### Typical composition of a boiler-scale:

| Fe <sub>2</sub> O <sub>3</sub> + Fe <sub>3</sub> O <sub>4</sub> | 50% |
|---|-----|
| Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                 | 15% |
| 3MgO.2SiO <sub>2</sub>  | 12% |
| Cu <sub>2</sub> O   | 10% |
| Balance (organics,  | 13% |
| metallic Fe. Cu etc)  |     |

### Cleaning processes for scaled boilers are based on:

· Treatment with sequestering agent, Ethylenediaminetatra Acetic Acid

Ethylenediaminetatra Acetic Acid forms stable, water-soluble complexes with all metal ions normally present in boiler-scales (Fe, Cu, Ca, Mg, Co and Ni). Since dissolution of Fe3O4 is rate determining in the cleaning process, Vappro 5583 is the preferred sequestering agent, since it effectively dissolves iron oxides.

### A typical dosage range in a boiler descaler is :

Vappro 5583 : 5 - 10 % (m/m)

Note: A corrosion inhibitor is required in cleaners for copper and steel parts.

### Cleaning of scaled boilers with Vappro 5583 offers several advantages :

- no handling of aggressive acids (as HCL, HF)
- reduced risk of corrosion of the base-material required no chloride-induced stress-corrosion cracking of stainless steel parts.
- · high iron-dissolving capacity
- short cleaning time

### **FEATURES**

- Multi-metal protection
- · Excellent scale inhibition
- · Cleans and treats boiler system
- · Excellent thermal chemical stability

### VAPPRO 5583 BOILER CLEANING AND BOILER-WATER TREATMENT CHEMICAL

#### SOLUBILIZATION

Vappro 5583 controls residual hardness ions present in the boiler-feed water.

Due to the excellent thermal and chemical stability of the formed Vappro 5583 chelates no precipitation will occur.

For economic reasons, Vappro 5583 treatment is restricted to:

- low residual hardness feed water (5ppm)
- low to medium pressures (<1000 psi)</li>
- oxygen free conditions

# The optimum Vappro 5583 dosage for every mg/kg residual hardness is:

Vappro 5583 : 20 ppm/kg

Vappro 5583 and phosphate are simultaneously dosed, such that most of the hardness ions are precipitated. The residual hardness is controlled by Vappro 5583.

### Advantages of the combined treatment are:

- clean heating surfaces and increased boiler efficiency
- a less critical operation than the separate treatments
- · reduced risk of corrosion

### **SPECIFICATIONS**

Appearance: Transparent
Colour: Pale Yellow
Viscosity: Low, Free Flowing
pH: 13 ± 0.5

Specific Gravity:  $1.3 \pm 0.5$ Flash Point: Non-flammable

### **AVAILABLE PACKAGING**

25 Liters / 200 Liters

### **CONTACT US**

Sujeng

PT. Bumi Marga Kharisma Utama Cluster Paris Blok W3 No.5

Balikpapan Baru, Balikpapan 76114 East Kalimantan - Indonesia

Telp. : (0542)-8879369 Fax : (0542)-8879369 Mobile : 0811590477

Email: sujeng@bmku.co.id













