DESCRIPTION

EK-1J is an additive for the Boiler Generators. By dosing certain amounts to the Boiler Generator water, it prevents furring, sludge and corrosion which may occur in the generator. It is a complete product. While controlling Oxygen corrosion and Furring in the boiler, it balances Alkalinity as well.

Chemical Name : Water conditioning (Chemical Mixture)

Document No : SP-KS-011

Trade Name : **EK-1J (BOILER GENERATOR WATER TREATMENT)**

Usage : Anti corrosive and anti-scab in Boiler Generator.

A. ORGANIC PROPERTIES

Appearance

Physical State (20°C) : Liquid

Color : Transparent liquid

Odor : Amine odor

B. PHYSICAL PROPERTIES

pH : 9.0 – 11.0

Molecular weight : -

Explosion Limit : None

Flash point : None

Relative Density : 1.05 – 1.15 g/cm^3

Solubility : Completely soluble in water.

APPLICATION, FEATURES & BENEFITS

- ✓ In regular use, it provides significant energy savings by preventing furring and corrosion which may occur within the generator.
- ✓ In regular use, it prevents abrupt stops, explosion, perforation, blocking and provides both time and money

savings without requirement of extra cleaning process in periodical maintenance.

- ✓ As the generator systems are machines, which produce rapid steam from small quantities of water, they are sensitive systems. Usage of EK-1J provides these systems and heating pipes life times at maximum.

STORAGE & TRANSPORTATION

Packed in original plastic jerry cans of 25-30-35-70-200 L. Storage period is 3 years.

DIRECTIONS FOR USE/APPLICATIONS & DOSAGE RATES

If there is no treatment chemical inside generator water first dosage will be 150 g / ton (150 g EK-1J to 1 ton water). This will be the first shocking dose to start treatment at the system. For following dosages we advise 50-100 g/ton. The best place to dose EK-1J will be make up water entrance line, water tank of degasser or condense (hotwell) tank. The best way to make the dosage is a dosage pump.

TEST METHOD

PHOSPHATE TEST: It is performed in order to test the presence of the substance in the boiler i.e. sufficiency of EK-1J presence. It controls the hardness, mud i.e. furring. Presence of 5-10 ppm phosphate is sufficient. In the presence of high phosphate the system has to be partially bluffed until the ideal phosphate amount and the dosage should be increased in the presence of low phosphate.

CHLORIDE TEST: It is performed to determine whether there is sea water leakage or the salinity content. Adjust the chloride value as 300 ppm maximum.

In case that chloride values are above these values the system must be bluffed so as to arrange to lower values.

ALKALINITY TEST: Alkalinity test helps us to determine the accuracy of pH value in the water. It is directly proportional with pH. Alkalinity ratio determines the ideal phosphate ratio depending on the pH of the water.

300 ppm p.Alkalinity must be the maximum limit in generator waters.

In case that alkalinity is above these ranges the system must be arranged to ideal ranges by partial bluffs.

NOTE: If the alkalinity value in boilers fed with high quality (demineralize) water does not fit into the required ranges you may benefit from our product namely ERAY (Alkalinity Control Substance). Adding 10 g (10 ppm) of ERAY product to 1 ton of water will give 5 ppm p.Alkalinity to the water.

HARDNESS TEST: It is performed to measure whether there's any hardness leakage in water. It is measured as $CaCO_3$. As the system water's hardness value does not exceed 5 F = 50 ppm it is recommended to feed the system with demineralize water or discharging water. If feeding is performed with hard water phosphate in the range of 15-20 ppm must be present in the boiler.

pH: It is the indicator of the acidity and alkalinity of the water. The ideal pH range in the boiler water is 10.5-11.5.

NOTE: If the generator in the generator waters stops time to time some water must be taken by deep bluff and water as much as removed water and chemical substance in proportion must be added. As the

generator systems are sensitive systems which produce rapid steam with little water, the probable precipitated solid substances will be removed without sticking and being scorched by this bluff.

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