

ZI-CHEM 1720

Steam Boiler Corrosion & Scale Control

HIGHLIGHTS

ZI-CHEM 1720 is an all-organic product based on Filming Amines and neutralizing Amines to prevent corrosion in steam boilers by formation of a protective film on metal surfaces. Due to its distribution ratio between gas and liquid phase, it also protects steam and condensate lines.

The corrosion inhibition of ZI-CHEM 1720 is based on the following mechanisms:

1. Formation of a protective film by adsorption of the filming amine on the surface by its nitrogen atoms.
2. Neutralization of carbon dioxide in steam and condensate.
3. PH adjustment of the feedwater and condensate in order to maintain carbon steel and copper in their passive state according to Pourbaix's program

The stabilizing and dispersing effect of ZI-CHEM 1720 prevents the formation of scale by blocking crystal growth (Threshold effect). Beyond the stabilization limit, an amorphous precipitate is obtained which can be dispersed and does not form an adherent scale. It can be removed from the boiler by normal bottom blow-down.

ZI-CHEM 1720 is suitable for High Pressure boiler above 60 bar with demineralized feed water.

TYPICAL PROPERTIES

- Appearance: Colorless to yellowish liquid
- Specific gravity: 1.00 ± 0.10 g/cm³
- pH : 12.0 – 13.0
- Odor: Amine like

PRIMARY APPLICATIONS

ZI-CHEM 1720 should be added into the feedtank or the feedwater pipe.

The product should be injected by means of an automatic dosing system regulated by the volume of make-up water.

ZI-CHEM 1720 should be dosed pure, without dilution in a dosing tank.

FEEDING & CONTROL

All parts of the feeding equipment coming in contact with the product must be made of PVC (suction tubing), teflon (membranes), EPDM or teflon (seals) and Polyethylene (discharging tubing). The product is not compatible with Viton.

The dosage will depend on the operating conditions and the chemistry of the water being treated. Your ZI-TECHASIA technical field specialist will recommend the most appropriate dosage for your particular application on an ongoing basis.

THE BENEFITS

- Reduced total fuel cost
- Increased steam production
- No off-line cleaning required
- Extended equipment life
- Suitable for high pressure boiler up to 1,200 psig

COMMON APPLICATIONS

- Oil refinery
- Power generation facilities
- Petrochemical
- Pulp & Paper processing
- Fertilizer

PACKAGING

- 30kg drums
- 210kg drums
- 1,000kg IBC containers

HANDLING & SAFETY

ZI-TECHASIA maintains a database of safety data sheets (SDS) on all our products. These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel.

