

Technical Data Sheet (TDS)

ASA-B 470



Chemical Product

Product Name: ASA-B 470

Use: Scale Inhibitor for Boiler

Introduction

ASA-B 470 combines the strengths of inorganic phosphates, phosphonates, and dispersant polymers to provide comprehensive scale and deposit control in both low and medium-pressure steam boiler systems. Inorganic phosphates function as precipitating agents, reacting with hardness ions (primarily calcium and magnesium) to form soft, non-adherent sludge that can be removed via blowdown. Phosphonates act as threshold inhibitors and crystal modifiers, preventing the nucleation and growth of scale-forming crystals like calcium carbonate and calcium sulfate. High-performance polymers (e.g., polyacrylates or sulfonated copolymers) serve as dispersing agents, keeping sludge and fine particulate matter in suspension to avoid deposition on boiler surfaces.

Advantages:

- Effectively controls calcium carbonate, calcium sulfate, magnesium hydroxide, and iron-based deposits
- Prevents insulating scale formation on heat transfer surfaces
- Minimizes tube fouling, overheating risks, and unplanned shutdowns
- Combines precipitation, inhibition, and dispersion mechanisms for robust system coverage
- Converts hard scale-forming ions into soft sludge
- Compatible with common boiler materials including mild steel, copper alloys, and stainless steel
- Stable at high temperatures and under varying pH conditions

Dosages:

The dosage varies on the amount of the steam rate and operating conditions. The ASA-B 470 is injected continuously to boiler drums such that orthophosphate residual concentration be maintained between 5-15 ppm in boiler.

Typical Properties

➤ Appearance	:	Bright Yellow Liquid
➤ Specific Gravity	:	1.00-1.05
➤ Solubility	:	soluble in all proportions of water.
➤ pH 10%	:	> 10

PACKAGING

ASA-B 470 is supplied in P.E drums of 200 kg capacity.

Storage

Keep cool, dry ventilated storage and clean containers.

Shelf Life

Two years in closed drums stored under cover and protected from extremes of temperature.

Performance monitoring

The performance of ASA-B 470 can be continuously monitored by scale rate.

Address: Unit 1 South ,No 358, North Mofateh Ave, Tehran, Iran.

 Tel: (+98)21 88 75 08 68

 URL: www.ASACChem.ir

 E-Mail: info@ASACChem.ir