

# FINEAMIN 39F

POLYAMINES-BASED FILM-FORMING CORROSION AND SCALE INHIBITOR FOR  
LOW TO MEDIUM PRESSURE STEAM GENERATORS, NSF® FOOD SAFETY CERTIFICATION

## ADVANTAGES

- Anticorrosion protection by surface-active, filming polyamines
- Dispersion and removal of existing corrosion products and deposits
- Formation of a stable, thin and homogeneous magnetite protection layer
- Prevention of calcium carbonate and other mineral salts deposits
- Combination of ecologically harmless biodegradable components, in single drum
- Neutralization of carbon dioxide also in steam and condensate
- Increasing heat transfer leading to reduced energy consumption
- Reduction of blowdown water ratio due to organic salt free components
- Conformity to FDA 173.310 and NSF G6 certification for direct contact of the steam with food products

## MODE OF ACTION

**FINEAMIN 39F** is a mixture of volatile, alkalinizing film-forming polyamines and alkaline dispersing polymers. The surface-active polyamines enhance the formation of a thin, homogeneous magnetite protection layer with a very stable structure. This protection layer prevents the contact of the electrolyte with the metal surface without reducing the heat transfer. **FINEAMIN 39F** protects the whole system, including steam and condensate pipes, due to the high distribution coefficient of the alkalinizing components and the volatile amines. The combination of surface-active polyamines and alkalinizing polymers leads to a very effective protection against the corrosion process and scale deposition. Existing corrosion products and deposits get dispersed and gently removed. Using salt-free **FINEAMIN** products leads to savings in water consumption and due to the improved heat transfer, to reduced energy consumption. The performance of the whole plant is increased and the overall system protection is improved, while the costs of operation decrease significantly. Furthermore, **FINEAMIN 39F** confirms FDA protocol 173.310 and certified by NSF G6 for direct steam contact with the food products.

## ENVIRONMENTAL COMPATIBILITY

**FINEAMIN 39F** has been independently tested and confirmed as ecologically and toxicologically harmless by medical and hygiene institutes. Furthermore, it is almost entirely bio-degradable. For more details see EU safety data sheet.

## APPLICATION AND DOSING

**FINEAMIN 39F** generally gets injected as a diluted solution in a single point of the plant, into the feed water pipe after degasification and after the attemperator spray water extraction pipe. The required dosage is calculated by the service engineer according to the water quality and condition of the plant. The determination of the **FINEAMIN** excess can be done with a test kit or by using a photometric test.

## DELIVERY

**FINEAMIN 39F** is delivered as liquid solution in drums of 30 kg, 60 kg or 210 kg. For major customers, the product is available in standard 1000 kg containers. In closed drums, with an ambient temperature range from -5°C to 45°C, it can be stored for up to 5 years.

## PROPERTIES AND INFORMATION

### PHYSICAL

Form: .....	Liquid	Boiling point/range: .....	nd
Colour: .....	Colourless	Density at 20°C: .....	> 0.88006 g/cm <sup>3</sup>
Odour: .....	Characteristic of amines	pH-value at 20°C: .....	12.5+/-2.5
Odour threshold: .....	nd	Vapour density: .....	nd
Melting point/range: .....	-10°C	Evaporation rate: .....	nd

### ECOLOGICAL

Aquatic toxicity: .....	no relevant information available
Persistence and degradability: .....	more than 90% biodegradable



# THE FINEAMIN PRODUCTS FAMILY

## FOR BOILERS / STEAM GENERATORS CLOSED LOOP COOLING OR HEATING

PRODUCT NAME	ACTIVE INGREDIENTS	TYPICAL USES
FINEAMIN 06	Polyamines & polymers	General boiler treatment, power plants <120 bars, refineries
FINEAMIN 06C	Polyamines & polymers, concentrated	Refineries, industrial processes
FINEAMIN 06 SCAV	Polyamines, polymers, oxygen scavenger	Same as FINEAMIN 06. Used for high oxygen levels in feed water
FINEAMIN SCAV 35	Oxygen scavenger amines	Oxygen reduction < 120bars
FINEAMIN 90	Polyamines	Power plants > 120 bars
FINEAMIN 24	Polymers	Maintain high pH
FINEAMIN 39	Polyamines, polymers	General boiler treatment
FINEAMIN 29	Polyamines, polymers, copper inhibitor	Closed cooling with copper

Available packaging, CP9 pallets: 30kg drum / 28 in pallet - 60kg drum / 8 in pallet - 210kg drum / 4 in pallet - 1'000kg IBC / 1 in pallet

## FOR OPEN COOLING

PRODUCT NAME	ACTIVE INGREDIENTS	TYPICAL USES
FINEAMIN 47	Film-forming amines, polymers	Corrosion and scale inhibitor
FINEAMIN 91	Polycarboxylic acid, phosphonic acid	Corrosion and scale inhibitor
FINEAMIN 92	Polycarboxylic acid, phosphonic acid, zinc	Corrosion and scale inhibitor
FINEAMIN 95T	Environmentally friendly phosphates	Corrosion and scale inhibitor
FINEAMIN 81	Co-polymers	High-stress dispersant
FINEAMIN FINALGA ME	Isothiazoline	Biocide
FINEAMIN FINALGA 25	Quaternary ammonium	Biocide
FINEAMIN Biodispersant BOD		Biocide

Available packaging, CP9 pallets: 30kg drum / 28 in pallet - 60kg drum / 8 in pallet - 210kg drum / 4 in pallet - 1'000kg IBC / 1 in pallet



## HYDROPHOBIC FILM FORMING POLYAMINES

