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## PRODUCT DATA

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### AES-2211F BOILER WATER OXYGEN SCAVENGER

#### DESCRIPTION AND USE

AES-2211F is a catalyzed highly concentrated sulfite solution designed to react almost instantaneously with oxygen present in the boiler feedwater. By acting as an oxygen scavenger, the product is used to control corrosion and pitting caused by the presence of this dissolved gas. The formulation ingredients comply with FDA regulations published in CFR 1 21 part 173.310 entitled "Boiler Water Additives".

#### CHEMICAL FEEDING AND CONTROL

AES-2211F must be fed continuously to the deaerating heater or feedwater storage tank and may be fed neat directly from the shipping container or mixed in a chemical feed tank. The product cannot be mixed with most common chemicals used for treatment or the catalyst will be deactivated. Stainless steel or plastic is recommended for the chemical feed system. Copper, copper alloys, and aluminum metallurgy in the chemical feed system must be avoided.

AES-2211F is normally controlled by a sulfite test on the boiler water. Control ranges can vary widely depending upon both makeup water characteristics and system operating conditions and will be specified by the technical representative servicing the facility.

#### TYPICAL PROPERTIES

Appearance: Pale liquid  
Odor: Pungent, characteristic  
Specific Gravity: 1.20-1.28  
Flash Point: None  
pH (undiluted): 5.5 - 6.5  
Freeze Point: 0°C (32°F)  
(All values approximate)

#### SAFETY AND HANDLING

Do not take internally. Do not induce vomiting. If ingested, drink at least two glasses of water and get medical attention. Contact with eyes causes severe irritation or burns. If eyes are contacted, immediately flush with clear water for 15 minutes and get medical attention. For skin contact, wash with soap and water. For additional information, the Material Safety Data Sheet is available on request.

#### PACKAGING

AES-2211F is packaged in 200 and 25 liter (nominal volume) plastic drums.

# AES TREATMENT PROGRAMS & SERVICES

## Cooling Water Treatment Programs

Corrosion Inhibitors  
Antiscalants & Antifoulants  
Biocides  
Antifoams

## Boiler Water Treatment Programs

Oxygen Scavengers  
Corrosion Inhibitors ( Pre-Boiler, Boiler and After  
Boiler)  
Deposit Inhibitors ( Sludge Conditioners)  
Antifoams  
Alkalinity Builders

## Potable Water Treatment Programs

Corrosion Inhibitors  
Deposit/ Scale Inhibitors  
Disinfectants

## Fuel Treatment (Solid & Liquid)

Deposit/ Corrosion Inhibitors  
Combustion Catalysts

## Coagulants & Flocculants

Organic & Inorganic

## Odor Control Programs

Masking Agents  
Reactive Odor Control  
Enzymes

## Hard Surface Cleaners

General Purpose Cleaners  
Descalers  
Neutralizers

## Brewery & Bottling Plants

Pasteurizers  
Bottle Washers  
Conveyer Chain Lubricants

## Metal Treatment Chemicals

Cutting Lubricants  
Degreasers  
Passivators  
Phosphatizing Chemicals  
Electroplating Chemicals

## R.O. Water Treatment

Scale Inhibitors  
Membrane Cleaning Chemicals  
ANSI/ NSF Approved Antiscalants

## Thermal Desalination Treatment

Scale and Corrosion Inhibitors  
Antifoams  
Descalers

## Steam & Condensate Programs

Corrosion Control  
USDA/ FDA Approved Additives

## Raw Water & Wastewater Programs

Coagulants      Odor control  
Flocculants      Enzymes  
Disinfectants    Bacterial Spores  
Antifoams      Emulsion Breakers

## Process Treatment Programs

Specialty Chemical Additives

## Commercial Laundry Chemicals

Built Detergents  
Emulsifiers  
Fabric Softeners  
Peroxide Bleach  
Chlorine Bleach  
Scoring Agents

## Services

Technical & Engineering Consultations  
Analytical Services  
Ion Exchange Resins Evaluation  
Reverse Osmosis Cleaning

## Equipment Supply

Water & Wastewater Treatment Plants  
Filters, Pumps  
Tanks  
Chemical Feed Systems  
PH Controllers  
Blow down Controllers  
Automatic Control Systems  
SCADA

Manufactured in the Kingdom of Saudi Arabia by :

The logo for AES, featuring the letters 'AES' in a bold, italicized, red font with a white outline.

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