

Nalco® 7223 High-Purity Dispersant for Nuclear PWRs

Optimize Performance. Minimize Downtime. Maximize Savings.

Nalco 7223 is a high-purity polymer-based dispersant engineered for the steam generator feed water and condensate systems of pressurized-water-reactor (PWR) nuclear plants. Polymer dispersants are proven to reduce iron-oxide deposition and the associated impacts on performance and maintenance.

Key Benefits

- Reduces iron-oxide deposits and under-deposit corrosion
- Defers or eliminates the need for sludge lancing and chemical cleaning
- Protects steam generator assets from stress-corrosion cracking and potential primary to secondary tube leaks
- Improves heat-transfer and thermal efficiency for increased MW output



PRODUCTIVITY

Increase MW production through improved thermal efficiency and pump losses



ASSET
PROTECTION

Protect steam generator assets from corrosion stress cracking, tube plugging and failures to help prevent unplanned outages



COSTS

Reduce cleaning and sludge lancing

eROISM
by Ecolab

ANNUAL SAVINGS



ASSET PROTECTION

Reduced forced outages from steam generator tube failures, fouled level controllers and valve regulators

\$500,000

Reduced equipment repairs and cleanings due to excessive iron inventories

\$200,000



PRODUCTIVITY

Reduced heat rate due to boiler cleanliness

\$200,000



TOTAL VALUE DELIVERED

\$900,000

Typical Specifications

Test Item	Specification
Physical appearance	Colorless to light-amber, clear liquid
Polymer solids, %	9.60 – 10.40
Neat pH @ 25 °C	8.0 – 9.0
Brookfield viscosity @ 25 °C, cP	90 – 180
Isopropanol, ppm	≤ 999
Acrylic acid, ppm	≤ 499
Specific gravity @ 25 °C	1.050 – 1.071
Chloride, ppm	< 10
Fluoride, ppm	≤ 10
Sodium, ppm	≤ 20
Sulfur, ppm	≤ 10
Phosphorus, ppm	≤ 10
Potassium, ppm	≤ 10
Silica, ppm	≤ 10
Copper, ppm	< 2
Iron, ppm	≤ 5
Lead, ppm	≤ 1
Boron, ppm	≤ 10
Bismuth, ppm	≤ 1
Arsenic, ppm	≤ 10
Aluminum, ppm	≤ 10
Mercury, ppm	≤ 10



Technical Highlights

- High-molecular-weight polymer dispersant
- Proven effectiveness in steam cycles up to 1000 psig
- Compatible with stainless steel, HDPE, PP, PVC and more
- Stable up to ~ 500 °F
- Meets stringent purity specifications
- Certified 2-year shelf life

Field-Proven Results

- Lower friction factor and pump losses
- Higher net electrical output
- Improved heat-transfer coefficients
- Reduced steam-pressure losses and valve wear
- Reduced deposition in steam generators

Package Codes

Code	Container	Volume
7223.33	Stainless-Steel PortaFeed Jr.	200 gal
7223.32	Stainless-Steel MetalCraft	180 gal
7223.61	Poly IBC	275 gal
7223.11	Pail	5 gal

Contact your Ecolab representative

► call: 1 800 824 3027 | visit: [ecolab.com](https://www.ecolab.com)