



HEDP 60%

1-Hydroxyethylidene-1,1-Diphosphonic Acid

CAS Number: 2809-21-4

Chemical Formula: $C_2H_6O_7P_2$

DESCRIPTION

HEDP 60% is an aqueous organophosphonic acid solution used primarily as a scale and corrosion inhibitor. It exhibits strong chelating ability with metal ions such as calcium, iron, copper, zinc, and aluminium, forming stable complexes that prevent scale formation and dissolve oxidised deposits. HEDP shows excellent chemical stability at high temperatures and under high pH conditions, with good resistance to hydrolysis and chlorine oxidation.

KEY FEATURES

- Strong chelating performance with metal ions
- Excellent scale and corrosion inhibition
- Stable at temperatures up to 200 °C
- Effective under high pH conditions
- Good tolerance to chlorine and oxidising environments
- Strong synergistic performance with other water treatment chemicals

APPLICATIONS

- Scale and corrosion inhibitor in circulating cooling water systems
- Oilfield and low-pressure boiler water treatment
- Industrial water treatment (power, chemical, metallurgy, fertiliser industries)
- Detergent for metal and non-metal cleaning
- Peroxide stabiliser and dye-fixing agent in textile processing
- Chelating agent in non-cyanide electroplating systems



**LIMITED WARRANTY INFORMATION.
PLEASE READ CAREFULLY.**

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This document is subject to revision without notice as new data becomes available.

TECHNICAL SUPPORT
+61294103317
info@chemport.com.au

Level 9 Tower A
821 Pacific Highway
Chatswood NSW 2067
Australia
chemport.com.au

TYPICAL SPECIFICATIONS

Parameter	Specification
Appearance	Clear colourless to pale yellow liquid
Active Acid	≥ 60.0 %
Phosphorous Acid (as PO_3^{3-})	≤ 2.0 %
Phosphoric Acid (as PO_4^{3-})	≤ 0.8 %
Chloride (as Cl^-)	≤ 100 ppm
Sequestrant Value (as CaCO_3 , pH 11–12)	≥ 500 mg/g
pH (1% solution)	≤ 2.0
Density @ 20 °C	≥ 1.440 g/cm ³
Iron (Fe)	≤ 35 ppm
Colour	≤ 80

PACKAGING

Supplied in 200 L HDPE drums, 1000 L IBCs, or ISO tanks, depending on customer requirements.

STORAGE & HANDLING

Store in a cool, dry, and shaded area away from incompatible materials. When stored under recommended conditions, the product has a shelf life of 12 months.

SAFETY

HEDP 60% is acidic. Avoid contact with eyes and skin. In case of contact, rinse immediately with plenty of water. Use appropriate personal protective equipment. Refer to the Safety Data Sheet (SDS) for detailed safety, handling, and regulatory information.