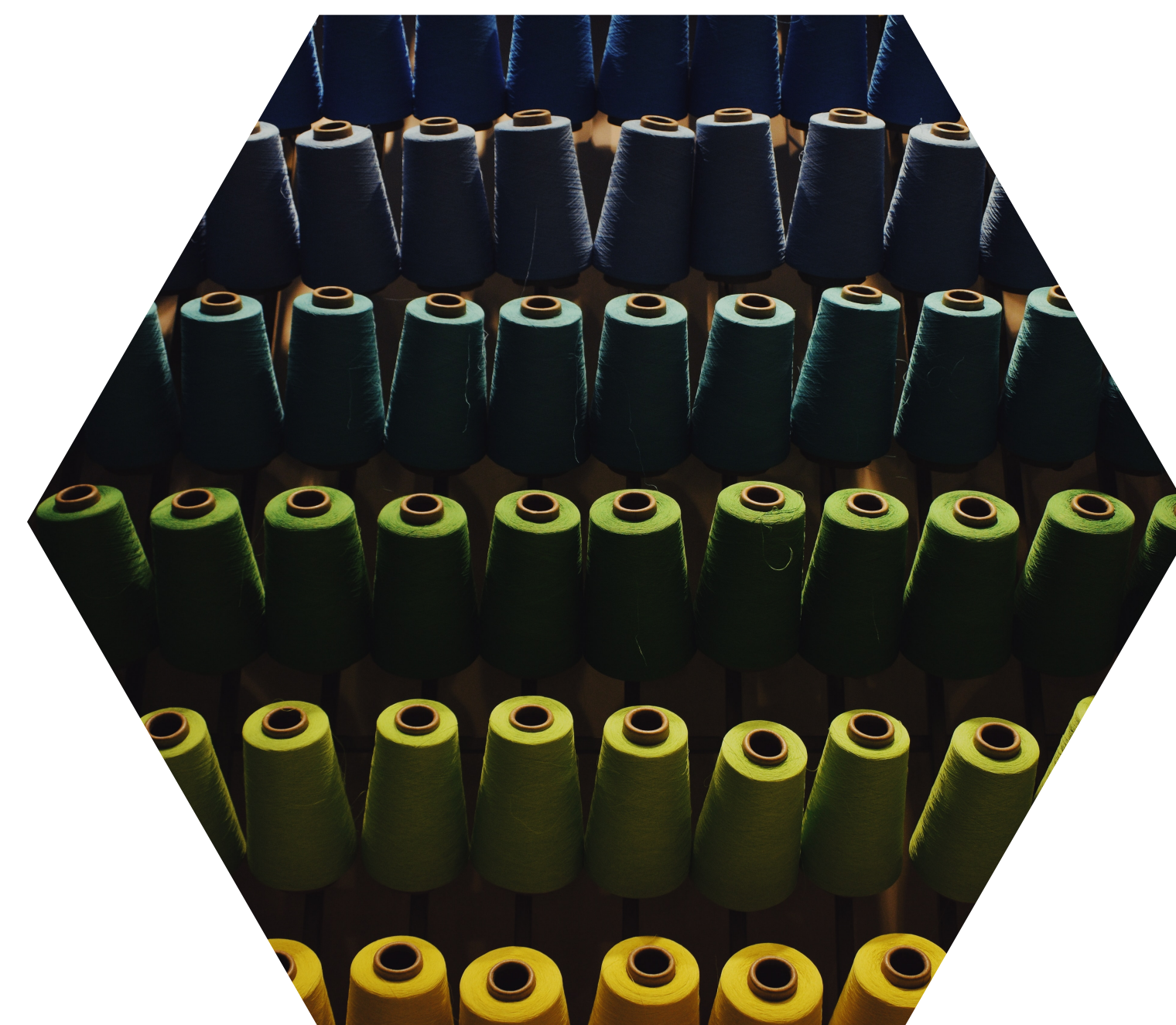




1-Hydroxyethylidene-1,1-diphosphonic acid

HEDP 60 (ZEELCHEM™ 101)

Etidronic acid HEDP CAS 2809-21-4, also called 1-Hydroxyethylidene-1, 1-diphosphonic acid, is an organophosphoric acid corrosion inhibitor. It can chelate with Fe, Cu, and Zn ions to form stable chelating compounds. It can dissolve the oxidized materials on these metals' surfaces. HEDP shows excellent scale and corrosion inhibition effects under temperature 250°C. HEDP has good chemical stability under high pH value, hard to be hydrolysed, and hard to be decomposed under ordinary light and heat conditions. Its acid/alkali and chlorine oxidation tolerance are better than that of other organophosphoric acids (salt). HEDP can react with metal ions in water system to form hexa-element chelating complex, with calcium ion in particular. Therefore, HEDP has good antiscale and visible threshold effects. When built together with other water treatment chemicals, it shows good synergistic effects.



Specifications:

Appearance: Colorless to pale yellow aqueous solution
Active content (HEDP)%: 60.0
Phosphorous acid (as PO₃³⁻)%: 1.0 max
Phosphoric acid (as PO₄³⁻)%: 0.6 max
Chloride (as Cl⁻) ppm: 100.0 max
pH (1% solution): 2.0 max
Density g/cm³: 1.43-1.47
Fe, mg/L: 10.0 max
Colour APHA (Hazen): 30.0 max
Ca sequestration (mg CaCO₃/g): 530.0 min

CAS No: 2809-21-4
Molecular weight: 206.02
Formula: C₂H₈O₇P₂

To find out more, please visit
www.zeelproductonline.co.in

Application of HEDP:

HEDP is used as scale and corrosion inhibition in circulating cool water system, oil field and low pressure boilers in fields such as electric power, chemical industry, metallurgy, fertilizer, etc..

- 1) In light woven industry, HEDP is used as detergent for metal and nonmetal.
- 2) In dyeing industry, HEDP is used as peroxide stabilizer and dye-fixing agent;
- 3) In non-cyanide electroplating, HEDP is used as chelating agent. The dosage of 110mg/L is preferred as scale inhibitor, 10-50mg/L as corrosion inhibitor, and 1000-2000mg/L as detergent.
- 4) HEDP is usually used together with polycarboxylic acid.
- 5) HEDP is listed as an ingredient of several cosmetic formulations where it is used for suppressing radical formation, emulsion stabiliser and viscosity control.
- 6) ZEELCHEM™ 101 is widely used in industrial water treatment, textile auxiliaries, sugar mill anti-scalants, thermal and geo-thermal antiscalants, oil-field chemicals, reverse osmosis anti-scalants, detergents, industrial and institutional cleaners, soaps and personal care products etc.

Packing:

Liquid: 250 kg per drum, 65.0 Kg Carboy

Storage & Transport:

Stored in cool and airy place; away from fire and heat; handle with care; no breakage, avoid leakage.



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