

1-Hydroxy Ethylidene-1,1-Diphosphonic Acid

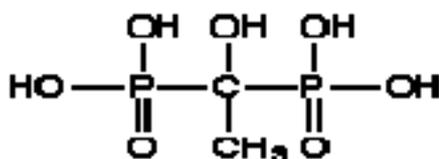
HEDP

[CAS No.] 2809-21-4

Molecular Formula: C₂H₈O₇P₂

Molecular weight: 206

Structural Formula:



Properties:

This product is an organophosphoric acid corrosion inhibitor, It can chelate with Fe, Cu, and Zn ions to form stable chelating compounds, thus it can dissolve the oxidized materials on these metals' surfaces. HEDP shows excellent antiscaling corrosion inhibition effects under temperature 250°C. It has good stability under high pH value, is hard to be hydrolyzed, and hard to be decomposed under ordinary light and heat conditions. Its properties of acid/alkali and chlorine oxidation resistance are better than that of other organophosphoric acids (salt). HEDP can react with metal ions in water system to form hexa-element chelating complex, especially with calcium ion to form capsule polymer chelating complex. Therefore, this product has good antiscaling and visible threshold effects. When built together with other water treatment chemicals, it shows good synergistic effective performance.

It is assured that users of our products will themselves determine the suitability of these products for their own particular purpose, and it is stressed that the information given herein are suggestions for user's guidance only, and are not intended as recommendations, neither are any of the statements made to be construed as recommendations for the infringement of any patent.

Specification:

items	index
Appearance	Colorless or light yellow transparent liquid
Active component (HEDP) % ≥	50.0 60.0
Phosphorous acid (as PO ₃ ³⁻) % ≤	2.0 2.0
Phosphoric acid (as PO ₄ ³⁻) % ≤	0.8 0.8
Chloride (as Cl) ⁻ % ≤	1.0 1.0
pH value (1% water solution) ≤	2 2
Density (20°C) g/cm ³	1.34 1.40
Ca Chelating value mg/g ≥	450 500
Fe ion ppm ≤	10 10

Usage: This product is widely used in circulating cool water system, oil field water pipelines and boilers for antiscaling corrosion inhibition in fields such as electric power, chemical industry, metallurgy, fertilizer, etc.. In light weave industry, this product is used as detergent for metal and nonmetal. In dyeing industry, this product is used as peroxide stabilizer and dye-fixing agent; In non-cyanide electroplating, this product is used as chelating agent. The dosage of 1-10mg/L is preferred as antiscaling corrosion inhibitor, 10-50mg/L as corrosion inhibitor, and 1000-2000mg/L as detergent. Usually, this product is used together with antiscaling dispersant of polycarboxylic acid type.

Package and Storage: 30kg in plastic barrel, or 250L in plastic barrel for export, 200kg or 250kg per barrel, or confirmed by clients. Storage for ten months in room shady and dry place.

Safety Protection: Acidity, Avoid contact with eye and skin, once contacted, flush with water.