JIYUAN QINGYUAN WATER TREATMENT CO., LTD

ADD: ZHICHENG TOWN, JIYUAN CITY, HENAN PROVINCE, CHINA

Tel: +86-391-608 2211 Fax: +86-391-608 6299

Product Information:

Chemical Name	1-Hydroxyethylidene -1,1-diphosphonic Acid
Abbreviation	HEDP
Molecular Formula	$C_2H_8O_7P_2$
Molecular Weight	206
CAS Number	2809-21-4
Application Notes	HEDP can chelate with Fe, Cu, Al, Zn etc. metal ions and form stable chelating compounds and dissolve the oxidized materials on metals' surfaces. It is soluble with water, shows excellent scale and corrosion inhibition effects under temperature 200°C and has good chemical stability under high pH value, hard to be hydrolyzed , and hard to be decomposed under ordinary light and heat conditions. Its acid/alkali and chlorine oxidation tolerance are better than that of other organophosphorus 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. The crystal powder of HEDP with high content, suitable for usage in winter and freezing districts. Because of its high purity, it can be used as cleaning agent in electronic fields and as additives in daily chemicals.
Recommended Uses	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.. In light woven industry, HEDP is used as detergent for metal and nonmetal. In dyeing industry, HEDP is used as peroxide stabilizer and dye-fixing agent; In non-cyanide electroplating, HEDP is used as chelating agent.

Product Specification

Items	Index
Appearance	Clear colorless to pale yellow liquid, free from foreign matter
Active Acid (%)	60.0 min
Phosphorous acid as PO_3^{3-} (%)	1.5 max
Phosphoric acid as PO_4^{3-} (%)	0.4 max
Chloride as Cl^- (ppm w/w)	100 max
Sequestrant value ($CaCO_3$) mg/g as product at pH 11-12	500 min
pH (1% solution)	2.0 max
Density at 20°C, g/cm^3	1.440 min
Iron content (Fe ppm)	15.0 max
Colour	20 max

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Advantages and Certificate:

Certified by NSF STANDARD 60.

Package and Storage:

HEDP liquid: Normally in 200L HDPE drum, 1000L IBC and ISO TANK.

Storage for 12 months in room shady and dry place.

Safety Protection:

Acidity, avoid contact with eye and skin, once contacted, flush with plenty water.