ZAOZHUANG KAIRUI WATER TREATMENT CO., LTD.

2-Phosphonobutane -1,2,4-Tricarboxylic Acid, Sodium salt (PBTC.Na4)





CAS No.	40372-66-5	EINECS No.	254-894-4
Molecular Formula	C7H7O9P.Na4	Molecular Weight	358

Structural Formula

$$\begin{array}{c} \text{CH}_2\text{--COONa} \\ | \\ \text{NaHPO}_3\text{---C-COONa} \\ | \\ \text{CH}_2 \\ | \\ \text{CH}_2\text{---COONa} \end{array}$$

Product Features

PBTC.Na₄ is tetrasodium salt of 2-phosphonobutane-1, 2, 4-tricarboxylic acid (PBTC). PBTC.Na₄ is a highly effective scale inhibitor for calcium carbonate and calciumphosphate. PBTC.Na₄ scale inhibition property under high temperature is far better than that of organophosph-ines..

Technical Specification

Items	Index		
Appearance	Colorless to yellowish transparent liquid	White crystal powder	
Active content (PBTC), %	30.0min	64.0 min	
Active content (PBTC•Na ₄), %	40.0min	85 min	
Fe, mg/L	-	20 max	
Density (20°C), g/cm³	1.35min	-	
pH (1% water solution)	9.0-12.0	4.0-6.0	



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Applications & Usage

PBTC.Na₄ is mainly used in the field of cooling & process water treatment and cleaning formulations. PBTC.Na₄ can be used without adding acid, such as at any pH.

PBTC.Na₄ is usually used together with zinc salt, copolymer, organophosphine, imidazole and other Water Treatment Chemicals.

PBTC.Na₄ powder is recommended as dry mix ingredient in chlorine bleach cleaning formulations and in dish wash formulations. PBTC.Na₄ powder also functions as a retardant in cement.

Scale & Corrosion Inhibition Performance

CaCO ₃ inhibition	CaSO₄ inhibition	CaF ₂ inhibition	Iron control	Sequestration
Very Good	Excellent	Very Good	Very Good	Very Good
Calcium tolerance	Iron Control	Sequestration	Steel corrosion inhibition	
Good	Yes	Excellent	Very Good	

Package & Storage



Hazard & Safety Precaution

