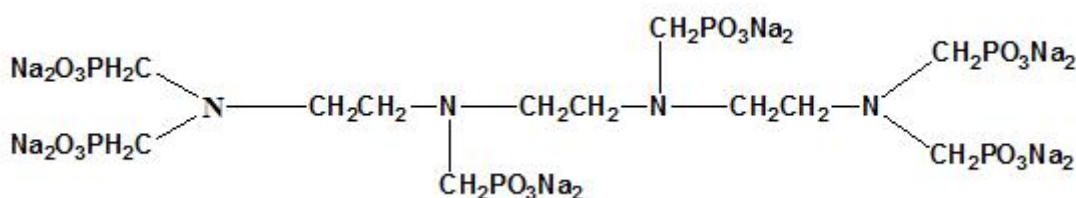


Sodium Salt of Triethylene-tetramine Hexmethanephonic Acid (TETHMP•Na₁₂)



Molecular Formula	C ₁₂ H ₂₄ O ₁₈ N ₄ P ₆ Na ₁₂	Molecular Weight	974
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Structural Formula



Product Features

TETHMP • Na₁₂ has strong properties of scale and corrosion inhibition and high thermal stability, which decomposition temperature of dry product is 223 ~ 245 °C. TETHMP•Na₁₂ is easy to be degraded and safe to use.

TETHMP•Na₁₂ is a strong complexing agent with high dissociation degree in water, and can form a stable complex with Ca²⁺、Mg²⁺ and other metal ions. TETHMP•Na₁₂ can dissociate into twelve pairs of positive and negative ions in aqueous solution, chelate with two or more metal ions to form two or more complex of stereo macromolecule structure, loosely dispersed in water to destruct the normal crystalline of scale and prevent scale formation. TETHMP can effectively control the precipitation of carbonates, sulfates, phosphates, hydroxyl phosphates and ferric hydroxide and prevent the hard scale formation. In addition, TETHMP • Na₁₂ can form stable adduct with active oxygen compound (e.g. H₂O₂, etc.) to keep stability of active oxygen.

Technical Specification

Parameter	Standard
Appearance	Amber transparent liquid
Solid content, %	50.0 min
Active content (as acid), %	25.0 min
Active content (as salt), %	35.0 min
Total phosphonic acid (as PO_4^{3-}), %	20.0 min
PH (1% water solution)	10.0-11.0

Applications & Usage

TETHMP•Na12 can be used as scale inhibitor , efficient chelating agents, excellent barium sulfate scale inhibitor , which is widely used in cooling water treatment, peroxide bleaching stabilizer, detergent additives , municipal industrial clean water , geothermal water treatment and oilfield scale inhibitor.

As water quality stabilizer, it can be used to prevent scale in industrial circulating cooling water, dyeing water, low-pressure boiler feed water. TETHMP•Na12 also can be used as precious metal extraction agent, metal ions equispaced agent in electroplating industry, scale inhibitor of metal surface phosphate treatment system, cleaning agent of metal surface.

Package & Storage

TETHMP•Na12 Liquid			
25L Drum	200L Drum	1000L IBC	ISO Tank
			
Storage for 10 months in shady room and dry place.			

Alternative Name / Synonyms

- TETHMP•Na12
- Sodium Salt of Triethylene-tetramine Hexmethanephonic Acid