Polyamino Polyether Methylene Phosphonic Acid (PAPEMP)





CAS No.	130668-24-5		
Molecular Formula	C ₄ H ₁₃ NO ₇ P ₂	Molecular Weight	about 600

Structural Formula

$$(HO)_{2}P - CH_{2} CH_{3} CH_{3} CH_{2} - P(OH)_{2}$$

$$(HO)_{2}P - CH_{2} CH_{2} - CH_{2} - (OCH_{2}CH)_{2} - CH_{2} - P(OH)_{2}$$

$$(HO)_{2}P - CH_{2} CH_{2} - CH_{2$$

Product Features

PAPEMP is a new variety of water treatment agent. PAPEMP is a macromolecular organic phosphonic acid and can chelate with Cu, Ca, Mg and form as soluble chelation. PAPEMP has high chelation and dispersion capacity, high value of calcium tolerance, and good scale inhibition effects. PAPEMP can be used with AA/AMPS and other polymers, as scale and corrosion inhibitor in circulating cool water system, family detergent, thermal power plant and oilfield refill water system in situations of high hardness, high alkali and high pH value. PAPEMP has superb scale inhibition ability to calcium carbonate, calcium sulfate and calcium phosphate. PAPEMP can efficiently inhibit the formation of silica scale, stabilize metal ions such as Zn, Mn and Fe.

PAPEMP can be used as scale inhibitor for reverse osmosis system and multistep flash vaporization system in which high salt concentration, high turbidity and high temperature are usually encountered (such as high temperature and high turbidity in coal vaporization system), accessory agent for woven & dyeing (for example, yellow turnback inhibition agent), as alternatives of EDTA, DTPA and NTA. PAPEMP can work with HPAA and ATMP together.



ZAOZHUANG KAIRUI WATER TREATMENT CO., LTD.

Technical Specification

Parameter	Standard	
Appearance	Amber transparent liquid	
Active content, %	40.0 min	
Phosphoric acid (as PO ₄ ³ -), %	1.0 max	
Density (20℃), g/cm³	1.15-1.25	
pH (1% water solution)	2.0 max	

Package & Storage



Hazard & Safety Precaution



Alternative Name / Synonyms

- Polyamino Polyether Methylene Phosphonic Acid
- PAPE
- PBTC