

VerdiPhos D50

DTPMP 50% | PRODUCT DATA SHEET

Chemical name	Diethylenetriaminepenta(methylene phosphonic acid)
Common name	DTPMPA / DETPMP
CAS No.	15827-60-8
Molecular formula	$C_9H_{28}N_3O_{15}P_5$
Molecular weight	573 g/mol
Physical form	Brown transparent to amber aqueous liquid

PRODUCT DESCRIPTION

VerdiPhos D50 is a 50% aqueous grade of DTPMP, a powerful phosphonate sequestrant and threshold inhibitor with strong performance against mineral-scale formation, including difficult sulfate scales.

TYPICAL TECHNICAL SPECIFICATIONS

Parameter	Unit	Specification
Active acid (DTPMPA)	%	48.0–52.0
Phosphorous acid (as PO_3^{3-})	%	3.0 max
Chloride (as Cl^-)	%	12.0–17.0
pH (1% aqueous solution)	—	2.0 max
Density at 20°C	g/cm ³	1.35–1.45
Iron (Fe)	ppm	35 max
Solubility	—	Soluble in water

Key applications	Cooling-water and recirculating-water treatment • Industrial and municipal cleaning-water systems • Oilfield scale control • Peroxide bleach stabilization • Detergent and institutional-cleaner formulations • Paint, pigment, paper, textile and leather auxiliaries
Storage & handling	Store tightly closed in a cool, dry, well-ventilated area. Protect from contamination and incompatible materials. Handle with suitable PPE and corrosion-resistant equipment.

Specification note: Values are presented as typical technical specifications for the stated grade and should be confirmed against the current Certificate of Analysis (COA) for the supplied batch. Product performance depends on formulation, water chemistry and process conditions.



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