



NORTH METAL & CHEMICAL COMPANY

World Class Molybdenum & Tungsten Compounds

Since 1921

Technical Bulletin

Amino Tri(methylene phosphonic acid)-ATMP

About us.....

- Founded in York, PA in 1921, NM&C remains a financially stable, family owned producer of World Class Molybdenum & Tungsten compounds serving the Metal Finishing, Agriculture, Water Treatment, Pigment, and Antifreeze markets worldwide.
- NM&C maintains over \$2 million inventory of finished goods and ore concentrates to guarantee our customers a stable and secure source of molybdate in the event of a crisis or shortage.
- All orders for one drum to truckload quantities are shipped the next business day or as requested.
- NM&C molybdates are American Made and backed by full 'Cradle-to-Grave' product liability.
- NM&C is unrivaled in customer service and technical support.
- Strict Quality Assurance programs and ISO 9002 practices assure products of the highest quality and consistency.



Description: ATMP is freely miscible with water, alcohol and organic solvents. Very stable over wide pH and temperature ranges.

Technical Specifications: (Amino Tri(methylene phosphonic acid))
(CAS No. 6419-19-8)

Form	Clear, colorless to pale yellow liquid
Empirical Formula	C ₃ H ₁₂ NO ₉ P ₃
Molecular Weight	299.1
Phosphorous acid (as PO ³)	4.5% max; typically <2.78%
Specific gravity @ 20° C	1.28-1.38 g/cm ³ ; typically 1.33
Density; (lbs./gal) @ 25° C	11.1 ± 0.1
Percent ATMP; active content % wt	49-51; typically >50.0%
Color (APHA)	< 125; typically <90
Percent volatile, % wt.	Approx. 48
pH (1% active solution) @ 25° C	2.0 max; typically <1.9
Iron (Fe) content; ppm	35 ppm max; typically 5 ppm
Crystallization point; °C	Approx. -12°C (10° F)

APPLICATIONS: ATMP is used as scale and corrosion inhibitor, deflocculant, sequestrant, water stabilizer in cooling and boiler water treatment systems.

PACKAGING: Available in 551.16 lb. non-returnable poly drums.

SHELF LIFE: At least one year when properly stored in unopened container.

SAFETY: ATMP is corrosive to the skin and eyes. Inhalation of vapors may irritate the respiratory tract. Refer to MSDS for additional precautions.



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