



NORTH METAL & CHEMICAL COMPANY

World Class Molybdenum & Tungsten Compounds
Since 1921

TB-PBTC_071708

Technical Bulletin

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.



Phosphonobutane-tricarboxylic acid (PBTC)

Description: PBTC is used as a scale inhibitor, deflocculant, sequestrant and water stabilizer in cooling water systems.

Technical Specifications: (2-Phosphonobutane-1,2,4-tricarboxylic acid)
(CAS No. 37971-36-1)

Physical Form	Clear, colorless to straw colored liquid
Empirical Formula	C ₇ H ₁₁ O ₉ P
Molecular Weight	270.13
Freezing point, °C	-15 °C; 5 °F
Active acid content; % wt.	50.0% ±1.0%
Phosphorous acid content; % wt. (as P ₂ O ₃)	0.3% max. (0.04% typical)
Specific gravity@ 25 °C	1.280 ± 0.02
Weight/gallon @ 25 °C; lbs.	10.67 ± 0.08
Chloride content;	10 ppm max. (1 -5 ppm typical)
Iron content;	5 ppm max. (1-3 typical)
pH (1% solution)	2.0 max.

Applications: PBTC is used as a corrosion inhibitor in boiler feed water and has important applications as a chemical intermediate in insecticides, dry-cleaning soaps, gas absorbents, rubber chemicals and plasticizers

Packaging: Available in 551.16 lb. non-returnable steel drums.

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



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