

COPPERHEAD CHEMICAL COMPANY®

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Product Information Bulletin for:

TRIMETHYLOLETHANE TRINITRATE (TMETN) (METRIOL TRINITRATE)

Trimethylolethane Trinitrate (TMETN), also called Metriol Trinitrate (MTN), is a nitrate ester used in propellants and explosives. It is commonly stabilized with ethyl centralite and 2NDPA.

Physical Properties

Physical State	Oily liquid	Detonation Velocity	7050 m/s
Color	Colorless	Heat of Explosion	1122 cal/g
Chemical Formula	C ₅ H ₉ N ₃ O ₉	Heat of Combustion	2642 cal/g
Molecular Weight	255.15	Viscosity @ 20°C	156 cP
Specific Gravity @ 20°C	1.47	Soluble In	Acetone, ethyl ether, methanol, styrene, toluene, xylene
Freezing Point	-3°C	Solubility in Water @ 25°C	<0.015g/100g H ₂ O
Oxygen Balance as CO ₂	-35%		

Sensitivity and Stability

Impact	47 cm, 20" (PA apparatus)
Friction	Explodes, steel or fiber shoe
Explosion Temperature (5 Sec.)	235°C
Decomposition Temperature	182°C

Typical Specifications

Purity	98% minimum
Acidity/Alkalinity	0.002% maximum
Moisture	0.20% maximum
KI Stability (82.2°C)	10 minutes minimum

Shipping Information

Designation	Composition	DOT Classification	Approved Packaging
RXL 624	TMETN (Stabilized)	Substances, Explosive, n.o.s., Class 1.1D, UN0475, PGII	5-gallon or 30-gallon inner packaging with a 1A2 outer packaging. - Packaging as described in the USDOT Special Permit Authorization DOT-SP 2709.

Contact Us:

Phone: (570) 386-6123 Web: www.copperheadchemical.com Contact us regarding special requirements.

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FOR YOUR PROTECTION:

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