

COPPERHEAD CHEMICAL COMPANY®

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Product Information Bulletin for:

NITROGLYCERIN (GLYCERYL TRINITRATE)

Nitroglycerin (NG) is a nitrate ester used in propellants and other applications. NG is stabilized and desensitized to meet DOT shipping requirements. Common stabilizers for NG are ethyl centralite and 2NDPA. Typical desensitizers include acetone, ethyl acetate, triacetin, diethylene glycol, and methylene chloride.

Physical Properties

Physical State	Oily liquid	Detonation Velocity	7600 m/s
Color	Colorless	Heat of Explosion	1600 cal/g
Chemical Formula	$O_2NOCH(CH_2ONO_2)_2$	Heat of Combustion	1616 cal/g
Molecular Weight	227.09	Viscosity @ 20°C	36 cP
Specific Gravity @ 25°C	1.5931	Vapor Pressure @ 20°C	0.00033 mm Hg
Freezing Point	13.2°C	Soluble In	Most organic solvents
Oxygen Balance as CO ₂	+3.5%	Solubility in Water @ 20°C	0.18g/100g H ₂ O

Sensitivity and Stability

Impact	8 to 10 cm (2 kg weight)
Friction	100% steel shoe
Explosion Temperature (5 Sec.)	222°C
Decomposition Temperature	145°C

Typical Specifications

Nitrogen	18.4% minimum
Moisture	0.5% maximum
Acidity/Alkalinity	0.002% maximum
KI Stability (82.2°C)	10 minutes minimum
DiNG Content	Meets customer requirements

Please contact us regarding special requirements.

Shipping Information

Designation	Composition	DOT Classification	Standard Packages
RXL 677	50/50 NG / Ethyl Acetate	Substances, Explosive, n.o.s., Class 1.1D, UN0475, PGII	5 gallon inner packaging with a 1A2 outer packaging
RXL 688	75/25 NG / Triacetin		
RXL 689	70/30 NG / Methylene Chloride		
X-D-35	50/50 NG / Methylene Chloride		
X-E-3	75/25 NG / Diethylene Glycol	Substances, Explosive, n.o.s., Class 1.3C, UN0477, PG II	Packages authorized under DOT-SP2709
X-E-5	60/40 NG / Acetone		

If you are looking for a responsive, reliable, and cost effective manufacturer, contact us via telephone at (570) 386-6123 or via e-mail at sales@copperheadchemical.com. For additional information and handling instructions, refer to the Safety Data Sheet.

Rev. Jun 2019

FOR YOUR PROTECTION:

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