



An ISO 9001:2015
Certified Company

Speciality Products Research Group

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Ref. No.: SRG/TDS/TO/2025

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TECHNICAL DATA SHEET

1,4-dihydro-1,2,4-triazol-5-one (TO)

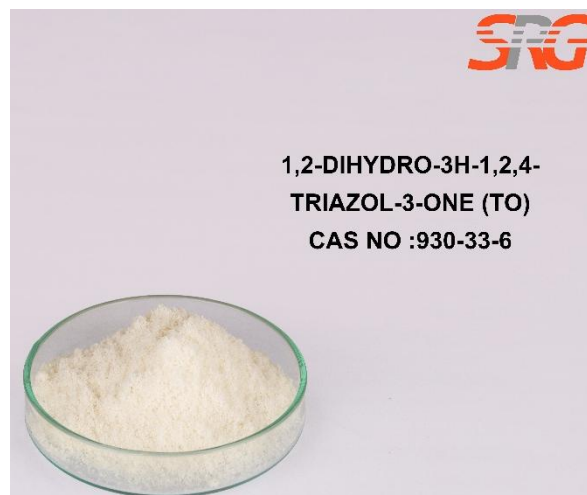
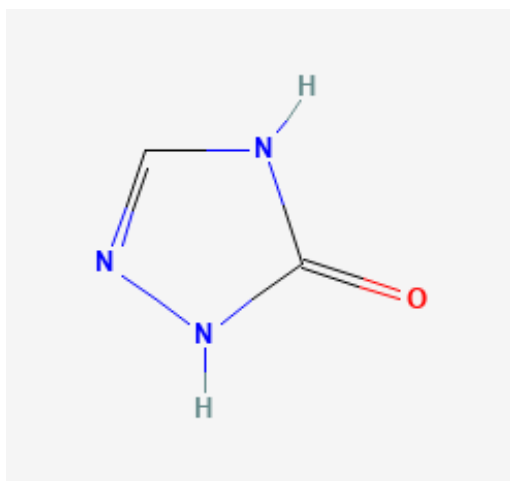
1,4-dihydro-1,2,4-triazol-5-one, commonly nitrated to become 5-nitro-2,4-dihydro-3H-1,2,4-triazol-3-one (NTO), is a high-performance, insensitive military explosive used as a safer alternative to RDX and TNT. NTO is a key component in melt-cast, low-vulnerability ammunition (LOVA), such as IMX-101, designed to withstand fires and impacts.

Synonyms:	Triazolone
CAS No.:	930-33-6
Molecular Formula:	C ₂ H ₃ N ₃ O
Avg Mass:	85.06 g/mol
IUPAC Name:	1,4-dihydro-1,2,4-triazol-5-one

SPECIFICATIONS FOR

1,4-dihydro-1,2,4-triazol-5-one (TO)

Sr No:	Characteristics	Specified Limits
1	Appearance	Off-white to light brown powder
2	Moisture, %	0.5 max
3	Purity by HPLC, %	98.0 min
4	Melting Point ° C	173 – 175



For Speciality Products Research Group

Proprietor

