



An ISO 9001:2015
Certified Company

Speciality Products Research Group

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Ref. No.: SRG/TDS/TNSTAD/2022

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TECHNICAL DATA SHEET

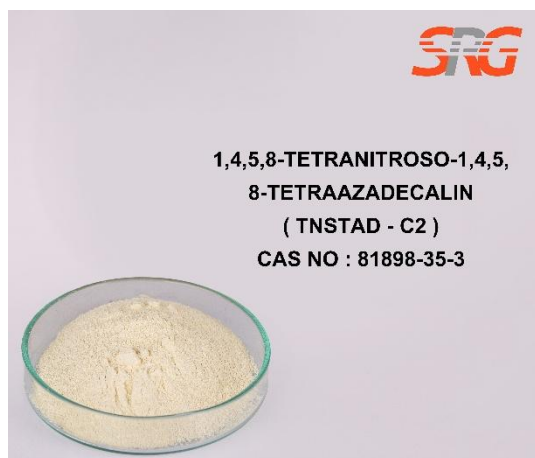
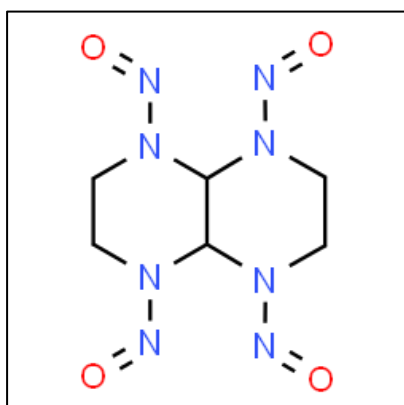
1, 4, 5, 8-TETRANITROSO-1, 4, 5, 8-TETRAAZADECALIN (TNSTAD - C2)

An off-white high energy material which is a potential energetic compound, TNSTAD is used for low flame temperature and high force constant gun propellants having great properties like high nitrogen content, low oxygen balance and generation of large number of low molecular weight fractions upon initiation. Further, it has properties like high impact insensitivity compared to conventional compound used in gun propellant. It finds usage in Fin Stabilized Armor Piercing Discarding Sabot (FSAPDS) and other composite propellant formulations.

Synonyms:	Tetra Nitroso Tetra Azadecalin (TNSTAD)
CAS No.:	81898-35-3
Molecular Formula:	C ₆ H ₁₀ N ₈ O ₄
Avg Mass:	258.19 g/mol
IUPAC Name:	1,4,5,8-Tetranitrosodecahydropyrazino[2,3-b] pyrazine

SPECIFICATIONS FOR TNSTAD - C2

Sr. No.	Characteristics	Specified limits
1.	Appearance	White or slightly yellowish wet crystalline powder
2.	Moisture Content, %	30.0 min
3.	Decomposition Temperature, °C	202 – 210
4.	Insoluble Material in Acetone, %	0.8, max
5.	Ash, %	0.2, max
6.	Particle Size, µm	10.9 max



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8-TETRAAZADECALIN
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For Speciality Products Research Group

Proprietor

