

# TETRANITROCARBAZOLE (TNC)

*Leading worldwide specialist in the field of high explosives, EURENCO offers its customers a complete range of high explosives and compositions like TNC, owing to high-tech manufacturing capabilities.*



## PRODUCT

- Trade name: TNC
- Chemical name: 1, 3, 6, 8 (9H) tetranitrocarbazole
- Chemical formula:  $C_{12}H_5N_5O_8$
- CAS number: 4543 – 33 - 3
- EINECS number: 224 – 898 - 0

## CHARACTERISTICS

- Appearance: yellow solid product
- Molecular weight: 347
- Melting point: 290 – 295 °C
- Enthalpy of formation: +54.4 kJ/kg
- Explosion heat: 3000 kJ/kg
- Auto-ignition:  $\geq 200$  °C
- Solubility in toluene
- Insolubility in water and alcohol
- Transport classification: 1.3C

## USES

TNC is used in ignition compositions and / or as catalyst for airbags' combustion (automotive safety).

## SPECIFICATIONS

- Volatile materials: < 0.2 %
- Nitrogen rate: > 15.5 %
- Total acidity ( $H_2SO_4$ ): < 0.2 %
- Melting point: 296 °C
- Insolubility in acetone: < 0.15 %
- Particle size > 300  $\mu m$ : 0 %
- Compliant with MIL T-13723A