2,4,6-trinitrotoluene

IDENTIFICATION NUMBERS

- **CAS:** 118-96-7
- **EC/EINECS:** 204-289-6
- **International Chemical Safety Card (ICSC):** 0967

MORE INFORMATION

- **Molecular Formula:** C7H5N3O6
- **Synonyms:** TNT

⚠ **Black list — Substances particularly hazardous to the environment or health**

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS01
Unstable explosives



GHS06
Acute toxicity (oral, dermal, inhalation)



GHS08
Respiratory sensitisation



GHS09
Hazardous to the aquatic environment

Signal word: Danger

H Phrases

H201 : Explosive; mass explosion hazard

Expl. (Cat. 1.1) : Explosive

H331 : Toxic if inhaled

Acute Tox. (Cat. 3 *) : Acute toxicity

H311 : Toxic in contact with skin

Acute Tox. (Cat. 3 *) : Acute toxicity

H301 : Toxic if swallowed

Acute Tox. (Cat. 3 *) : Acute toxicity

H411 : Toxic to aquatic life with long lasting effects

Aquatic Chronic (Cat. 2) : Hazardous to the aquatic environment

H373 : May cause damage to organs through prolonged or repeated exposure

STOT RE (Cat. 2 *) : Specific target organ toxicity - repeated exposure

Specific health risks

Carcinogens (other sources)

Substances classified as carcinogens or mutagens Category 3 under the Dangerous Preparations Directive criteria (pre-CLP). Substances with limited evidence or indications of carcinogenicity or mutagenicity.

CATEGORY

CP

SOURCE

CP65

According to IARC

Substances classified as carcinogens or mutagens Category 2 under the CLP Regulation (GHS), bearing H351 and/or H341 phrases. These are substances suspected of causing cancer or heritable genetic mutations in humans.

IARC GROUP

Grupo 3

IARC VOLUME

(VOL. 65; 1996)

Biological Exposure Indices (BEI)

Biological limit values (VLB) published by the Spanish National Institute of Safety and Health at Work (INSST). Reference values for assessing the risk of chemical agents by measuring them or their metabolites in biological matrices (blood, urine, exhaled air) of exposed workers.

BIOLOGICAL EXPOSURE INDICES

Biological indicator	BEI	Sampling time	Notes
Metahemoglobina en sangre	1,5% de metahemoglobina en hemoglobina total	Final de la jornada laboral (2)	F, I, S

Occupational Exposure Limits (OEL)

Daily exposure limit values (VLA-ED) published by the Spanish National Institute of Safety and Health at Work (INSST). They represent the average concentration of a chemical agent in the worker's breathing zone, measured or calculated in a time-weighted manner for an 8-hour daily working period. (https://www.insst.es/valores-limites-de-exposicion)

OCCUPATIONAL EXPOSURE LIMITS

State / Form	TWA (ppm)	TWA (mg/m³)	STEL (ppm)	STEL (mg/m³)	Notes
—	—	0.1	—	—	vía dérmica

Restriction/prohibition regulations

Major accident hazards (Seveso)

Hazardous substances listed in Annex I of the Seveso III Directive (Directive 2012/18/EU), transposed in Spain by Royal Decree 840/2015. Their presence in industrial establishments in quantities equal to or above established thresholds triggers obligations to implement major accident risk control measures.

Substances under PACT evaluation

Substances under active regulatory monitoring through ECHA's PACT (Public Activities Coordination Tool). Allows tracking which regulatory authorities are examining a substance and what potential regulatory actions are being considered (restriction, SVHC identification, harmonised classification, etc.).