



MATERIAL SAFETY DATA SHEETS

662

2,4,6-Trinitrotoluene

1. CHEMICAL IDENTITY

Chemical Name : 2,4,6-Trinitrotoluene

Chemical Classification: Explosive

Trade Name :

Synonyms: TNT, Trinitrotoluol, sym-Trinitrotoluene, 1-Methyl-2,4,6-trinitrobenzene, Benzene, 2-methyl-1,3,5-trinitro

Formula : C₇H₅N₃O₆

CAS No: 118-96-7

UN No: 1356

Regulated Identification

Shipping Name :

Hazchem Code : 1W

Codes / Label : Class 4.1, Explosive

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
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1	2,4,6-Trinitrotoluene	118-96-7	3
2			4

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: 240

Physical State: Solid

Appearance: Colorless to pale-yellow solid or crushed flakes

Melting Pt °C: 80.1

Vapour Pressure @ 35°C mmHg: 8.02X10⁻⁶ mm Hg at 25 deg C

Odour: Odourless

Vapour Density(Air =1): 7.85

Solubility in water at 30°C g/100ml: 115 mg/L at 23 deg C

Others: Slightly soluble in ethanol; soluble in ethyl ether; very soluble in benzene, toluene, pyridine.

Specific Gravity (Water =1): 1.654 at 20 deg C/4 deg C

pH :

3. FIRE / EXPLOSION HAZARD DATA

Flammability :

LEL:

Flash Point °C in OC: Explodes

TDG Flammability:

UEL:

Flash Point °C in CC:

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : When heated to decomp, emits highly toxic fumes of oxides of nitrogen.

Hazardous Polymerization :

Combustible Liquid:

Explosive Material:

Corrosive Material

Flammable Material:

Oxidiser :

Others:

Pyrophoric Material:

Organic Peroxide :

4. REACTIVITY DATA

Chemical Stability : Reactive at high temperature or pressure. Moderate hazard. Will detonate under strong shock.

Incompatibility with other material : Strong oxidizers, ammonia, strong alkalis, combustible materials, heat. Rapid heating will result in detonation.

Reactivity : Sensitive to heat and shock. Reacts with reducing agents.

Hazardous :

Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, Ingestion, Skin and Eyes

Effects of Exposure / Symptoms:

Inhalation : Dyspnea and tachypnea may occur. Ingestion : Nausea and vomiting may occur. Skin : Central cyanosis unresponsive to oxygen therapy is classic. Eye : May cause burns. See inhalation.

Emergency Treatment :

Inhalation: Leave the contaminated area; take deep breaths of fresh air. If symptoms develop, call a physician

Skin: Flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, call a physician

Eyes: First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center.

Ingestion: Do not induce vomiting. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and call a hospital

LD50 (oral-rat) mg/kg:

STEL:

LC50 (rat) mg/kg:

Odour Threshold:

Permissible Exposure Limit: 1.5 mg/m³, skin

TLV (ACGIH) :

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	2	4	4	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Workers should be supplied with protective clothing that is laundered at regular intervals. Wear appropriate eye protection and protective clothing to prevent skin and eye contact.

Handling : All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage : Store at only in permanent magazine. This high explosive should be kept well away from initiator explosives, protected from physical damage, separated from oxidizing materials, combustibles and sources of heat.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media :

Special Procedure :

Unusual Hazards :

EXPOSURE: First Aid Measures:

Inhalation: Leave the contaminated area; take deep breaths of fresh air. If symptoms develop,

call a physician

Skin: Flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, call a physician

Eyes: First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center.

Ingestion: Do not induce vomiting. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and call a hospital

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : Keep sparks, flames, and other sources of ignition away. Keep material wet. Wet spilled material before picking it up. Do not attempt to sweep up dry material.

Waste Disposal Method:

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

10. DISCLAIMER

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