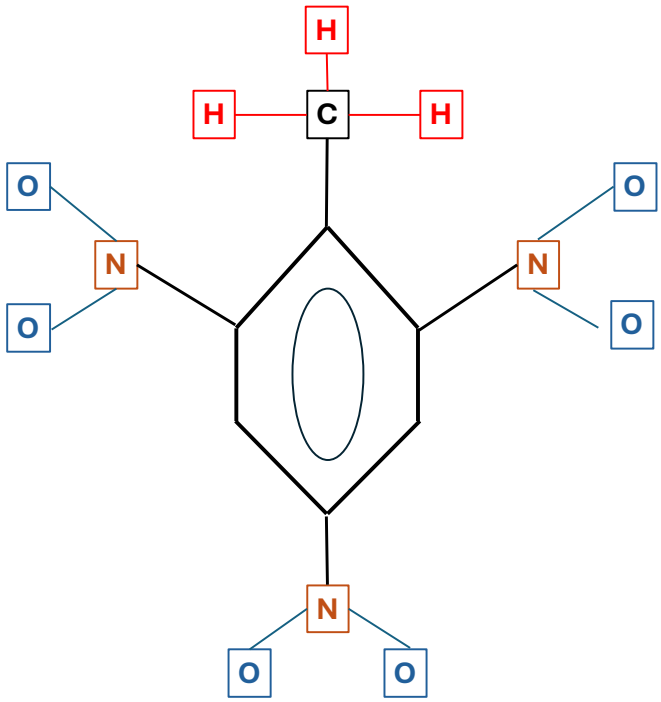
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Trinitrotoluene, 2, 4, 6 trinitrotoluene, TNT, 1-methyl-2, 4, 6 trinitrobenzene, 118-96-7
UN Number	1356
Chemical Formula	$CH_3C_6H_2(NO_2)_3$
Hazards	Explosive solid with dermal and inhalation toxicity hazard
PPE Considerations	SFPC or CPC with flash protection with SCBA based on task assignment
Fire Fighting Considerations	If involved in fire, do not attempt to extinguish. Evacuate area immediately.
Decontamination	Water with surfactant, flooding water for emergency decontamination
Detection and Monitoring	Colormetric, FTIR, mass spectroscopy, PID IP = 10.59 ev
Chemical and Physical Properties	
Physical State	Colorless to pale yellow odorless solid or crushed flakes
Vapor Pressure	.0002 mm/Hg
Boiling Point	4764°F (explodes)
Vapor Density	-
Specific Gravity	1.65
Miscibility	.01%
Flash Point	-
LEL/UEL	-
Autoignition Temp	-
pH	-
Toxicity	
IDLH	500 mg/m^3
PEL/REL/STEL	1.5 mg/kg^3/.5 mg/kg^3/.1 mg/kg^3
LD50	607 mg/kg^3
LC50	-
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Environmental hazard. Toxic by dermal and respiratory routes
Signs/Symptoms of Exposure	Irritation of skin and mucous membranes, liver damage, respiratory s/s, decreased B/P, CNS s/s

Medical Treatment	Fresh air, flush expose skin with water and treat symptomatically
Other Information	
Incompatible with strong oxidizers, ammonia, strong alkalis, combustible material. May explode when heated	
Chemical Structure