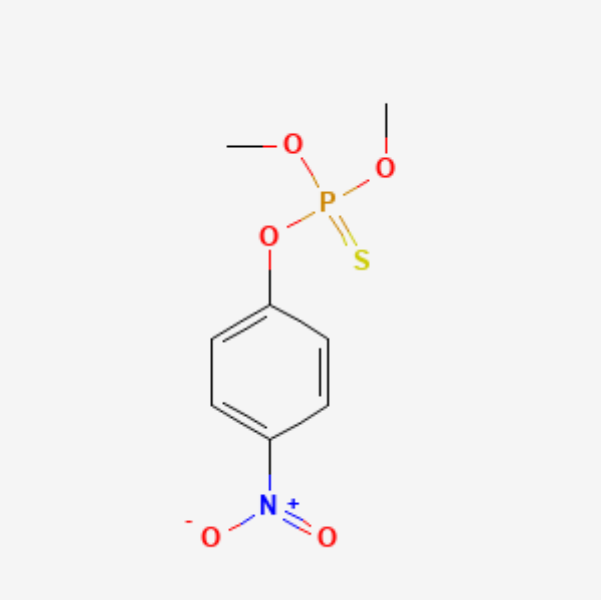
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Methyl Parathion, O,O-Dimethyl-O-(p-nitrophenyl) phosphorothioate, phosphorothioic acid, Azophos, Parathion Methyl
UN Number	2783 (solid), 3018 (liquid)
Chemical Formula	$(CH_3O)_2P(S)OC_5H_4NO_2$
Hazards	Toxic
PPE Considerations	SFPC, Splash Protective Garment, multi-threat ensemble with SCBA
Fire Fighting Considerations	Water, CO_2, dry chemical. Control runoff. Consider non-extinguishment / non-intervention if involved in fire.
Decontamination	Soap and water
Detection and Monitoring	Colormetric, chemical/physical reactive assessment
Chemical and Physical Properties	
Physical State	White-tan crystal solid or powder with a pesticide-like odor
Vapor Pressure	~.00001 mmHg
Boiling Point	~289°F
Vapor Density	~9.1
Specific Gravity	~1.5
Miscibility	Soluble in water
Flash Point	N/A, but may be dissolved in solvents that have flash point
LEL/UEL	N/A, but may be dissolved in solvents that have LEL/UEL
Autoignition Temp	-
pH	-
Toxicity	
IDLH	~25 ppm
PEL/REL/STEL	.02 mg/m^3 /.2 mg/m^3 /-
LD50	50 mg/kg
LC50	-
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Toxic by all routes.

Signs/Symptoms of Exposure	Salivation, vomiting, abdominal pain, CNS, blurred vision, fasciculations, miosis, cardiac (**SLUDGEM/DUMBBELLS)**
Medical Treatment	Fresh air and treat symptomatically, flush areas of contact with water, organophosphate toxidrome protocol
Other Information	
Strong oxidizers, water. Explosive risk if heated.	
Chemical Structure	



https://pubchem.ncbi.nlm.nih.gov/compound/Methyl-parathion