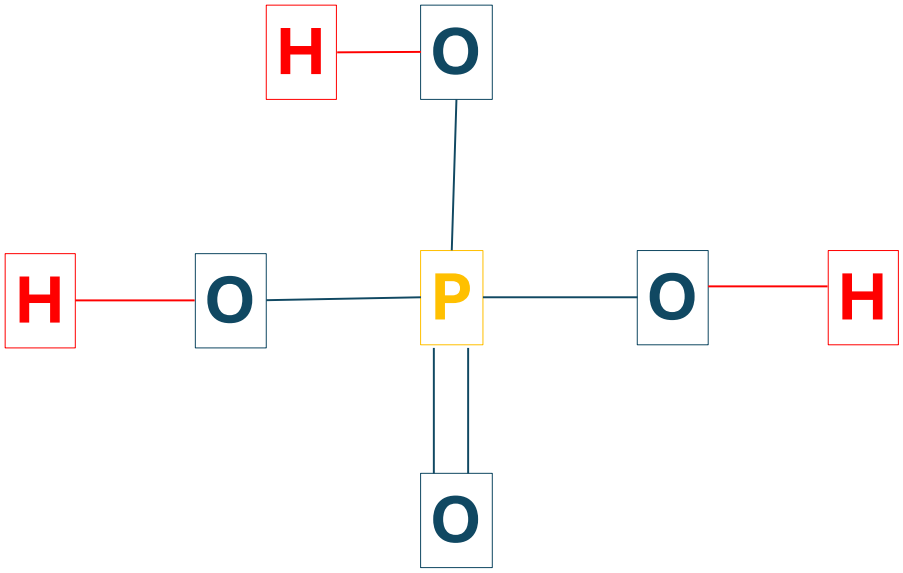
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Phosphoric Acid, Orthophosphoric acid, White phosphoric acid, 7664-38-2
UN Number	1805 (liquid/solution) 3453 (solid)
Chemical Formula	H_3PO_4
Hazards	Corrosive to skin, respiratory irritation
PPE Considerations	CPC with SCBA, .11mm Nitrile gloves
Fire Fighting Considerations	Choose extinguishing agent for adjacent combustible materials
Decontamination	Blot, Hybrid, Soap/Water, Water, Neutralization for equipment/surfaces
Detection and Monitoring	Colormetric, electrochemical sensor, spectroscopy,
Chemical and Physical Properties	
Physical State	Thick, colorless, odorless solid frequently shipped in aqueous solution. If in solution, clear solution.
Vapor Pressure	.03 mm/Hg
Boiling Point	415°F
Vapor Density	3.4
Specific Gravity	1.87 (pure), 1.33 (50% solution)
Miscibility	Miscible
Flash Point	-
LEL/UEL	- / -
Autoignition Temp	-
pH	-
Toxicity	
IDLH	1000 mg/m^3
PEL/REL/STEL	1 mg/m^3 **/** - **/** 3 mg/m^3
LD50	850 mg/kg (1 hour)
LC50	1530 mg/kg
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Skin irritant, eye irritation, CNS depressant
Signs/Symptoms of Exposure	Eye irritation and skin irritation, chest tightness, CNS depression, respiratory irritation
Medical Treatment	Fresh air, decontamination of external contact areas with water for 15 minutes, and treat symptomatically

Other Information
Incompatible with strong caustics, most metals. Forms hydrogen gas on contact with most metals. Do not mix with solutions containing bleach or ammonia
Chemical Structure