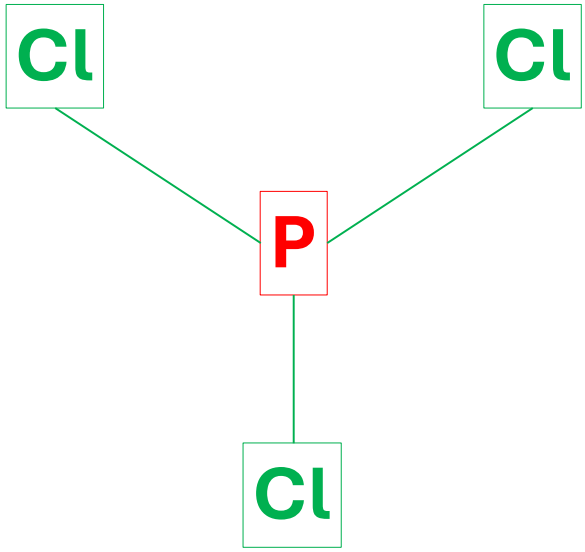
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Phosphorus trichloride, Phosphorus chloride, Trichlorophosphine
UN Number	1809
Chemical Formula	PCl_3
Hazards	Corrosive, toxic
NFPA Hazard Class (H-F-R-Ⓞ)	4 – 0 – 2 – W
PPE Considerations	Vapor protective CPC with SCBA
Fire Fighting Considerations	Extinguishing method appropriate for nearby combustibles
Decontamination	Flushing water with forced air ventilation
Detection and Monitoring	Colorimetric, spectroscopy, PID (IP = 9.91 eV)
Chemical and Physical Properties	
Physical State	Yellow liquid
Vapor Pressure	100-125 mmHg
Boiling Point	169°F
Vapor Density	4.74
Specific Gravity	Reacts with water
Miscibility	Reacts with water
Flash Point	-
LEL/UEL	- / -
Autoignition Temp	-
pH	1
Toxicity	
IDLH	25 ppm
LC50	50 ppm
LD50	18 mg/kg
AEGL1/AEGL 2/AEGL (10 Min)	.34 / 2.5 / 7 ppm
Emergency Response Planning Guide (ERPG) 1/2/3	.5 / 3 / 15 ppm
Protective Action Criteria (PAC) 1/2/3	.34 / 2 / 5.6 ppm
PEL/REL/STEL	.5 /.2 / .5 ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Inhalation, ingestion, and contact hazard
Signs/Symptoms of Exposure	Respiratory/skin/eye irritation, CNS s/s, chemical burns
Medical Treatment	Fresh air, water flush, treat symptomatically

Other Information
Water, air, and light reactive. Reacts with sodium, potassium, aluminum, nitric acid, acetic acid, organic matter, Forms hydrochloric and phosphoric acids when mixed with water.
Chemical Structure