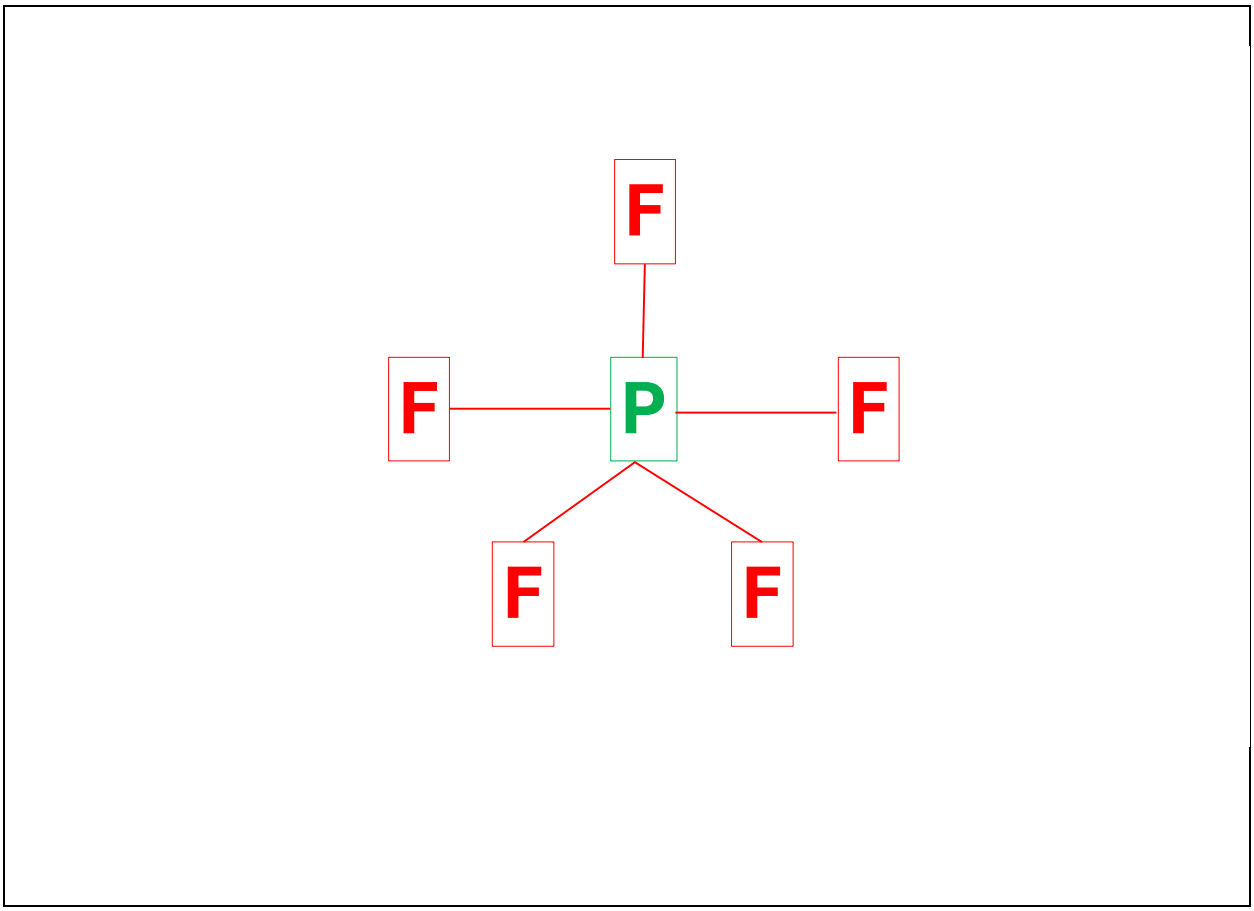
**Chemical of the Week – Part 2**

| Hazard Profile | |
|---|---|
| Chemical Name and Pseudonyms | Phosphorous Pentafluoride, Pentafluorophosphorane, 7647-19-0 |
| UN Number | 2198 |
| Chemical Formula | $PF_5$ |
| Hazards | Toxic, compressed gas that is corrosive in the presence of water |
| PPE Considerations | CPC with SCBA |
| Fire Fighting Considerations | Cool container if exposed to fire, avoid contact with water if container is venting |
| Decontamination | Forced air or flooding amounts of water |
| Detection and Monitoring | Colormetric, PID IP = 11.6-12+ ev, spectroscopy |
| **Chemical and Physical Properties** | |
| Physical State | Colorless compressed gas with pungent odor |
| Vapor Pressure | - |
| Boiling Point | -120°F |
| Vapor Density | ~4.3 |
| Specific Gravity | - |
| Miscibility | Not miscible, forms HF when mixed with water |
| Flash Point | -* |
| LEL/UEL | - |
| Autoignition Temp | - |
| pH | - |
| **Toxicity** | |
| IDLH | 250 $mg/m^3$ |
| AEGL1/AEGL 2/AEGL 3 – 10 Min | -/-/- ppm |
| Protective Action Criteria (PAC) 1/2/3 | 2/22/130 ppm |
| PEL/REL/STEL | 2.5 (vacated)/ /.05 ppm |
| LD50 | 400 ppm (mouse) |
| LC50 | 450 ppm |
| Radioactive (Yes/No) | No |
| **Medical** | |
| Toxicological Considerations | Strong acid when exposed to moisture. |
| Signs/Symptoms of Exposure | Respiratory s/s, irritation/burning of skin/eyes/respiratory tract |
| Medical Treatment | Fresh air, water flush, treat symptomatically |
| **Other Information** | |
| Incompatible/reacts with strong oxidizers, bases, water, heat, air | |
| **Chemical Structure** | |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