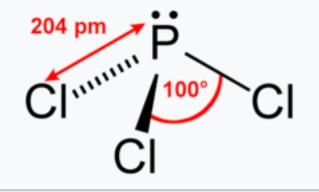
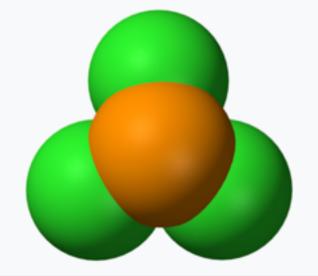


# Safety Slide

**Zhen Liu** 02/13/2019

# **PCI**3









## $CI \xrightarrow{P} CI + 3 Nu \xrightarrow{Nu} Nu \xrightarrow{P} Nu$ eg.: H<sub>2</sub>O $CI \xrightarrow{P} CI + R^{OH} \xrightarrow{R^{CI}} R^{-CI}$

#### -Hazards

Very toxic and corrosive (with a concentration of 600 ppm being lethal in a few minutes); React vigorously with water.

### -Storage

Store in a sealed, cool, dry container, separate from combustible materials Stay away from nucleophilic reagents

## -Handling

PPE (goggles, gloves, lab coat, pants, closed-toe shoes) as always

Keep a supply of dry sand available and ensure there is a Class D extinguisher

Don't heat PCI3 without proper containment for generated HCI and phosphoric acid vapors. Reagent may form phosphine and diphosphine gases by thermal decomposition.

#### -Dispose

Store wastes in tightly sealed containers. Dispose as hazardous waste.