**COMMON WATER REACTIVE CHEMICALS**

**Chemical Name Reaction with Water**

Acetic anhydride May boil explosively

Acetyl chloride Violently decomposes to HCl and acetic acid

Aluminum bromide Violent hydrolysis

Aluminum chloride Violent decomposition forming HCl gas

Boron tribromide Violent or explosive reaction when water added

Butyl lithium Ignites on contact with water

Calcium carbide Gives off explosive acetylene gas

Calcium hydride Hydrogen gas liberated

Chlorosulfonic acid Highly exothermic violent reaction

Chlorotrimethyl Silane Violent reaction

Dichlorodimethyl Silane Violent reaction

Lithium aluminum hydride Releases and ignites hydrogen gas

Lithium hydride Violent decomposition

Lithium metal Powder reacts explosively with water

Methyltrichlosilane Violent reaction forming HCl

Oxalyl chloride Violent reaction forming HCl

Phosphorous pentachloride Violent reaction

Phosphorous pentoxide Violent exothermic reaction

Phosphorous tribromide Reacts violently with limited amounts of warm H2O

Phosphorous trichloride Violent reaction releasing Flammable diphosphane

Phosphoryl chloride Slow reaction which may become violent

Potassium amide Violent reaction which may cause ignition

Potassium hydride Releases hydrogen gas

Potassium metal Forms KOH and hydrogen gas

Silicon tetrachloride Violent reaction producing silicic acid

Sodium amide Generates NaOH and NH3 (flammable)

Sodium azide Violent reaction with strongly heated azide

Sodium hydride Reacts explosively with water

Sodium hydrosulfite Heating and spontaneous ignition with 10% H2O

Sodium metal Generates flammable hydrogen gas

Tetrachloro silane Violent reaction

Thionyl chloride Violent reaction which forms HCl and SO2

Titanium tetrachloride Violent reaction that produces HCL gas

Trichloro silane Releases toxic and corrosive fumes

Triethyl aluminum Explodes violently in water

Triisobutyl aluminum Violent reaction with water

Zirconium Tetrachloride Violent reaction with water