

# Reactivity of Hazardous Materials

**These properties help determine how reactive a substance is with air or other materials.**

## **Air Reactivity...**

how likely a substance is to ignite or release energy when exposed to air  
*Substances with high air reactivity may be dangerous when exposed to air.*

## **Catalysts and Inhibitors...**

- Catalysts are substances that increase the rate of a chemical reaction.
- Inhibitors slow down the rate of reaction.  
*Inhibitors may be added to highly reactive substances to make them more stable.*

## **Oxidation Ability...**

how readily a substance gives off oxygen  
*Oxidizers easily give off large amounts of oxygen.  
Released oxygen increases the rate at which nearby combustible materials burn.*

## **Polymerization...**

an often violent chemical reaction in which large molecules are formed  
from many small molecules

## **Water Reactivity...**

how readily a substance reacts with water  
*Some materials react explosively on exposure to water.*