

# Properties of Hazardous Materials [2]

## Flammable Limits...

define the “flammable range” of a substance. Since vapors need the right amount of oxygen to burn, vapors will not burn if there is too much or too little of the vapor in the air.

- ⚠ lower flammable limit (LFL): the smallest concentration of vapor necessary for the substance to burn
- ⚠ upper flammable limit (UFL): the highest concentration of vapor that will burn

## Specific Gravity...

how heavy a substance is compared to water

- ⚠ A substance with a specific gravity greater than 1.0 will sink in water.
- ⚠ A substance with a specific gravity lower than 1.0 will float.

## Vapor Density...

how heavy a vapor is compared to air

- ⚠ A substance with a vapor density greater than 1.0 is heavier than air and will sink to the ground.

## Water Solubility...

how easily a substance dissolves in water

- ⚠ Flammable substances that dissolve in water may require special fire extinguishing methods.

## Concentration...

how much of an active ingredient is contained in a given solution, in percent by weight or percent by volume

## pH...

measures how basic or acidic a substance is on a scale from 1 to 14.

- ⚠ low pH = acidic
- ⚠ high pH = basic
- ⚠ pH of 7 is neutral

## Viscosity...

how thick a liquid is

- ⚠ Many liquids become less viscous when they are heated.