

## Homework - Worksheets

⑨  $SF_6$  sulfur hexafluoride

⑩  $S_2O_3$  disulfur trioxide

# Naming and Writing Formulas for Acids and Bases

## Reminder:

**Acids are aqueous hydrogen compounds that turn blue litmus red.**

**Bases are aqueous solutions of ionic hydroxides that turn red litmus blue.**

## IDENTIFYING ACIDS FROM FORMULA

Most acids can be identified from **starting with H** or ending in **COOH**.

i.e.  $\text{HCl}$ ,  $\text{H}_2\text{SO}_4$ ,  $\text{CH}_3\text{COOH}$

**Note:  $\text{NH}_3$  and  $\text{CH}_4$  are not acids!**



acid

When naming acids, common names (for common acids) or IUPAC names can be used.

## IUPAC (modern) Acid Names

- name the acid as an aqueous hydrogen compound
- Ex. aqueous hydrogen sulfide -  $\text{H}_2\text{S}_{(\text{aq})}$

## Classical Acid Names

- used the suffix **-ic** Ex. sulfuric
- used hydro and the suffix **-ic** Ex. hydrochloric
- used suffix **-ous** Ex. sulfurous
- and others (see inside back cover)

$\text{Li}_2\text{O}$   $\rightarrow$  ionic

$\text{SO}_2$   $\rightarrow$  molecular

## Rules for Naming Acids

1. If anion ends in -ide, the acid is "hydro chloric acid"

Ex. HCl



aqueous hydrogen chloride

2. If anion ends in -ate, the acid is "sulfuric acid"

Ex. H<sub>2</sub>SO<sub>4</sub>



aqueous hydrogen sulfate

3. If anion ends in -ite, the acid is "sulfurous acid"

Ex. H<sub>2</sub>SO<sub>3</sub>



aqueous hydrogen sulfite



aqueous hydrogen cyanide  
hydrocyanic acid



aqueous hydrogen acetate

acetic acid

## BASES

"Ionic hydroxides"



lithium hydroxide



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EXERCISE # 26-33

