

5-25 Notes Acids and Bases

Acids "sour"

- release H^+ in solution (H^+ ion)
- create low (0-6) pH values
- create H_2 gas reacting with metals
- create CO_2 gas reacting with carbonate
- turn litmus red

Bases (alkaline)

- taste bitter, feel slippery
- turns litmus blue
- high pH values (8-14)
- contain OH^- or CO_3^{2-} or HCO_3^-
- NH_3 (ammonia) is basic

$NaOH$ = sodium hydroxide
 $NaHCO_3$ = sodium bicarbonate
 $CaCO_3$ = calcium carbonate
 $Fe_2(CO_3)_3$ = iron (III) carbonate

Naming Acids

<u>Anion</u>		<u>Acid</u>
ate	→	ic
ite	→	ous
ide	→	hydro-ic

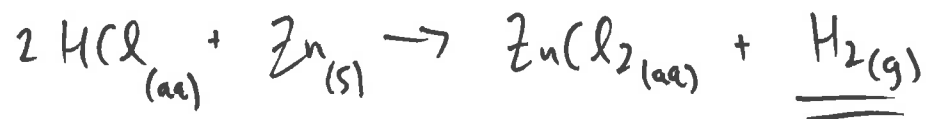
} acid

ex) HCl = hydrochloric acid
 $HClO_3$ = chloric acid
 $HClO_2$ = chlorous acid
 $HClO$ = hypochlorous acid

carbonic acid = H_2CO_3
acetic acid = CH_3COOH
perchloric acid = $HClO_4$
nitrous acid = HNO_2

Reactions

Acid + Metal = single replace



Acid + Base = DR (neutralization)

