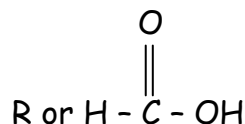


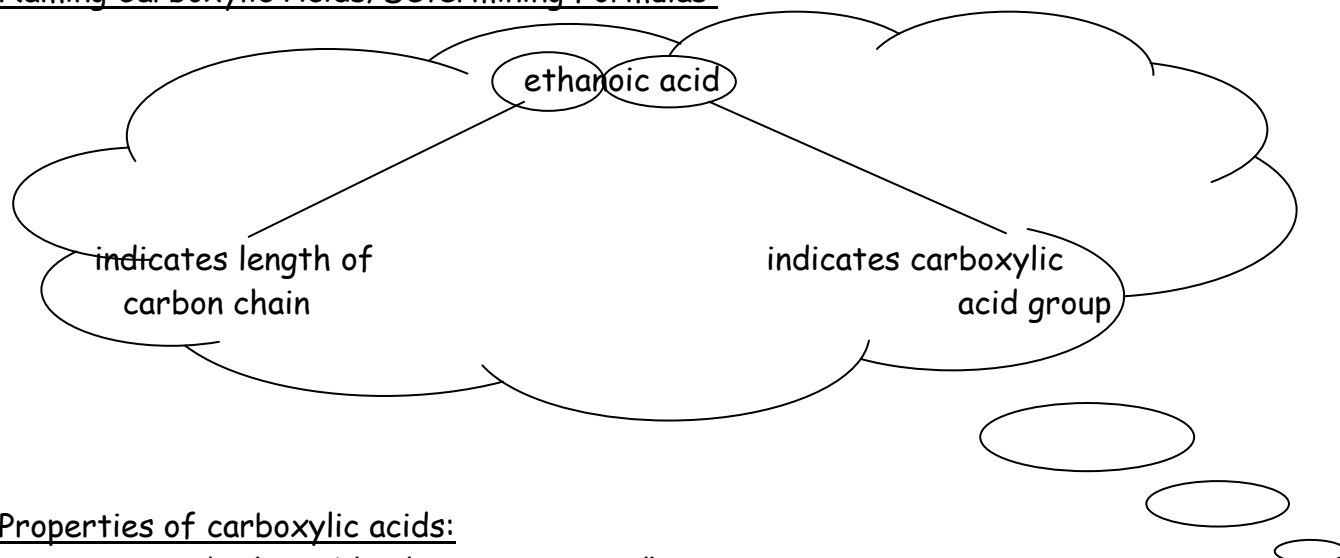
Carboxylic Acids

Carboxylic acids take the general form of:



The functional group of carboxylic acids is the carboxyl group, written as $-\text{COOH}$. This functional group is a combination of two other functional groups that you are already familiar with: the carbonyl($-\text{C}=\text{O}$) group in aldehydes and ketones, and the hydroxyl($-\text{OH}$) group in alcohols.

Naming Carboxylic Acids/Determining Formulas:



Properties of carboxylic acids:

- are acidic (turn blue litmus paper red)
- the carboxyl group (both OH and double bond O) cause these molecules to be polar
- smaller carboxylic molecules are soluble in water, larger carboxylic acid molecules are insoluble
- polar carboxyl groups also account for the high melting points of acids, compared with the melting points of similar hydrocarbons
- number of carboxyl groups per molecule affects the melting point of a carboxylic acid

HMRK: pg. 220 #1-4, 5 (good for studying)