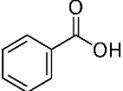


## Carboxylic acid

<b>Name</b>	<b>Acetic acid</b>	<b>Benzoic acid</b>
<b>Mol. Formula</b>	$C_2H_4O_2$	$C_7H_6O_2$
<b>Mol. Structure</b>	$H_3C-COOH$	
<b>Physical state</b>	Liquid	Solid
<b>Solubility</b>	Soluble (Miscible) in water and Acidize	Soluble (Miscible) in NaOH and Acidize
<b>Strong Acidize</b> 1ml or 0.5 g of Acid+ $Na_2CO_3$	Strong	Weak
<b>Bromophenol blue</b>	Yellow pH=3	Yellow pH=3
<b>Conc. <math>H_2SO_4</math></b>	The smell of acetic acid increases	-----
<b>Esterification</b> 1-1ml of carboxylic acid +Ethanol + Conc . $H_2SO_4$ + $\Delta$ 2-Add to backer contain 10 ml water + $Na_2CO_3$	The smell of acetic acid increases	-----

## Esterification-Page 39

