

## ESTER LAB

June 1-4, 2010

Number each test tube as follows:

- |     |              |                       |                   |
|-----|--------------|-----------------------|-------------------|
| 1.  | Methanol +   | Acetic acid ---- >    | Methyl acetate    |
| 2.  | Ethanol +    | Acetic acid ---- >    | Ethyl acetate     |
| 3.  | 1-Butanol +  | Acetic acid ---- >    | Butyl acetate     |
| 4.  | 1-Pentanol + | Acetic acid ---- >    | Pentyl acetate    |
|     |              |                       |                   |
| 5.  | Methanol +   | Salicylic acid ---- > | Methyl salicylate |
| 6.  | Ethanol +    | Salicylic acid ---- > | Ethyl salicylate  |
| 7.  | 1-Butanol +  | Salicylic acid ---- > | Butyl salicylate  |
| 8.  | 1-Pentanol + | Salicylic acid ---- > | Pentyl salicylate |
|     |              |                       |                   |
| 9.  | Methanol +   | Propionic acid ---- > | Methyl propionate |
| 10. | Ethanol +    | Propionic acid ---- > | Ethyl propionate  |
| 11. | 1-Butanol +  | Propionic acid ---- > | Butyl propionate  |
| 12. | 1-Pentanol + | Propionic acid ---- > | Pentyl propionate |

### SYNONYMS:

|             |                |  |
|-------------|----------------|--|
| Methanol    | is also called | Methyl alcohol                                   |
| Ethanol     | is also called | Ethyl alcohol                                    |
| 1-Butanol   | is also called | n-Butyl alcohol or n-Butanol                     |
| 1-Pentanol  | is also called | n-Pentyl or Amyl or n-Amyl alcohol or n-Pentanol |
| Acetic acid | is also called | Ethanoic acid                                    |

(NOTE: we are actually using a 1:1 mixture of acetic acid + acetic anhydride)

|                |                |                       |
|----------------|----------------|-----------------------|
| Salicylic acid | is also called | 2-Hydroxybenzoic acid |
| Propionic acid | is also called | Propanoic acid        |