Chemguide - questions

CARBOXYLIC ACIDS: ACID PROPERTIES

1. Ethanoic acid is a weak acid. Explain what that means using the equation:

$$CH_3COOH + H_2O$$
 \longrightarrow $CH_3COO^- + H_3O^+$

2. Ethanoic acid has typical acid reactions including with metals, metal oxides and hydroxides, carbonates and hydrogenearbonates, ammonia and amines.

In each of the following cases, describe the reaction and write the full (NOT ionic) equation for it.

The reaction between dilute ethanoic acid and

- a) sodium hydroxide solution
- b) magnesium ribbon
- c) solid sodium carbonate
- d) solid sodium hydrogencarbonate
- e) calcium oxide
- f) ammonia solution
- g) ethylamine (CH₃CH₂NH₂) solution (In this case, show the fully displayed structural formulae of everything in the equation, and name the product.)