

18 Carboxylic acids – Part 1 — Answers

Answers

Work through these after trying the questions yourself.

18.1 The carboxyl group, $-\text{COOH}$.

18.2 Oxidise it with acidified potassium dichromate(VI) under reflux (so it is fully oxidised to the acid).

18.3 (a) a salt and hydrogen \ (b) a salt and water.

18.4 $2\text{CH}_3\text{COOH} + \text{Na}_2\text{CO}_3 \rightarrow 2\text{CH}_3\text{COONa} + \text{H}_2\text{O} + \text{CO}_2$.

18.5 Add the acid to a carbonate; it fizzes, giving off carbon dioxide (which turns lime-water milky).

18.6 Being *weak* only means the acid is partly dissociated, not that it is unreactive. It still releases H^+ ions, which react with the carbonate to give carbon dioxide; as those ions are used up, more acid molecules dissociate, so the reaction continues.