

Acetic acid, more correctly called ethanoic acid, is a weak acid which will dissolve limescale, which is mostly  $\text{CaCO}_3$ . Acetic acid  $\text{CH}_3\text{COOH}$  is a weak acid with one ionizable proton which will react with carbonates to produce a solution calcium acetate and  $\text{CO}_2$  gas.



Since all acids react with carbonates to produce  $\text{CO}_2$ , the best acids to use are those which are least toxic. Acetic acid is found in vinegar which is used to flavor the food we eat. Acetic acid, as vinegar, is a common choice for removing limescale because of its cheap cost and ready availability.

So advantages:

- cheap
- not toxic
- edible
- ready availability

Disadvantages:

- weak acid
- evaporates from the aqueous solution