

Acetic acid, more correctly called ethanoic acid, is a weak acid which will dissolve limescale, which is mostly CaCO₃. Acetic acid CH₃COOH is a weak acid with one ionizable proton which will react with carbonates to produce a solution calcium acetate and CO₂ gas.



Since all acids (citric acid and sulfamic acid too) react with carbonates to produce CO₂, 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.