

What are the disadvantages of ethanoic acid, citric acid and sulfamic acid as a descaler?

Answer: Ethanoic (acetic) acid is a weak electrolyte; it should be diluted with water to react with limescale. Also, diluted ethanoic acid reacts not fast enough with limescale at the room temperature, but it can cause the corrosion of metal parts (pipes, containers etc.). Citric acid is a solid substance; it should be dissolved in water before the descaling. It reacts with the limescale and forms a poorly soluble salt – calcium citrate, that's the main disadvantage of citric acid as a descaler. Sulfamic acid has medium solubility in water, and at temperatures higher than 50 °C it decomposes to sulfuric acid, which is highly corrosive and forms insoluble calcium sulfate.