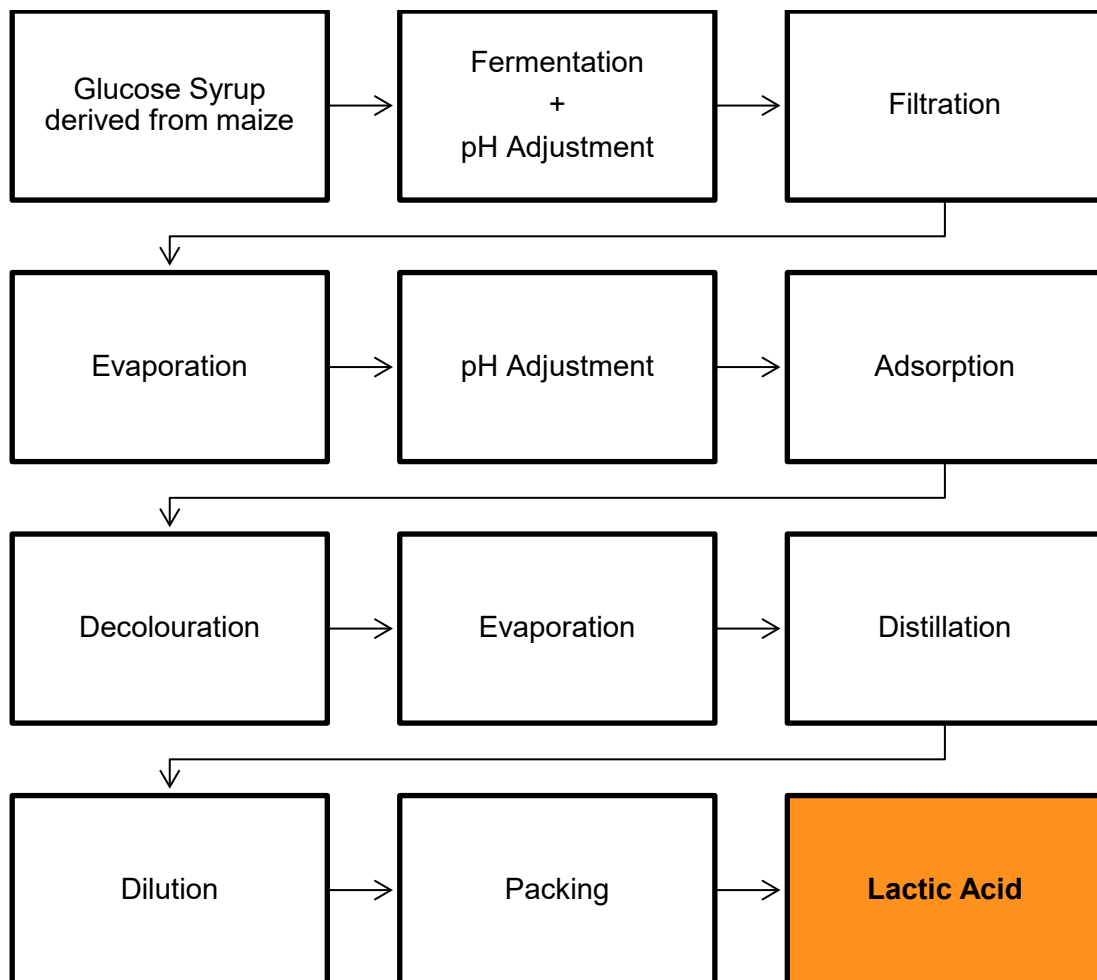


Production Flow Chart Lactic Acid



Fermentation Process

Jungbunzlauer L(+)-lactic acid is manufactured by the natural process of fermentation of glucose syrup derived from maize by enzymatic conversion, using a bacterial strain. Since fermentation requires a specific pH, the fermentation step includes pH adjustment. No other solvents than water nor catalysts are used during the complete process.

Downstream Process

After completion of the fermentation, the broth is filtered to separate the buffered lactic acid from biomass and concentrated by evaporation of water. After a second pH adjustment step, the lactic acid is purified by adsorption and decolourized with activated carbon. Thereafter, the lactic acid concentration is further increased by evaporation of water. The final purification step is a distillation which leads to a high purity concentrated lactic acid. Pure concentrated lactic acid solution is then diluted with water to the targeted concentrations.