

The invention is directed to a process for the further processing of iron sulphate heptahydrate to iron sulphate monohydrate. The process comprises the steps: a) forming an aqueous solution or suspension of iron sulphate heptahydrate in a container (mixture I), b) conveying mixture I into a first pressurized vessel and heating mixture I to a temperature T_1 , which is above the boiling temperature of mixture I at atmospheric pressure, where a pressure P_1 is formed and where iron sulphate monohydrate forms as solid and a solution II, c) separating off the iron sulphate monohydrate solid from solution II, d) conveying the separated-oil iron sulphate monohydrate solid with adhering solution II into a limber pressurized vessel with a pressure P_3 , where P_3 is lower than the pressure which prevails in step c), and where the temperature of the incoming solid with adhering solution II is above the boiling temperature a solution II at the pressure P_3 and where a temperature T_3 corresponding to the pressure P_3 is formed in the further pressurized vessel. Optionally the iron remaining in the solution II is furthermore recovered by reacting solution II in an oxidation reactor with air or oxygen and optionally additives, and iron oxide and/or iron hydroxide being formed in solid form.