The invention refers to the food industry, namely to the process for industrial extraction of sweetening substances from the plant *Stevia Rebaudiana Bertoni*.

Summary of the invention consists in that the sweet mixture of stevia glycosides is obtained in the form of extract, wherein the surplus of calcium, formed as a result of purification by addition of calcium oxide or calcium hydroxide, is removed in the form of hardly soluble phosphates with the help of orthophosphoric acid, at the pH value $8,6\pm0,4$. The proposed process permits to obtain a stevia extract with a high degree of purification from calcium salts.

Claims: 3