

a 2004 0066

The invention refers to the wine industry, namely to a process for neutralization of ferrocyanide slurry formed at the wine deferrization.

The process consists in that the initial ferrocyanide slurry, preliminarily treated with 15...20% HCl aqueous solution, in the mass ratio of 0,2...0,3, with the view of bringing the formed system to an optimal pH of 1,5...2,0 and destabilizing the microcolloidal state thereof, is filtered or centrifuged, resulting in an acid solution free of ferrocyanide ions and a precipitate, which is treated with powdered unslaked lime, in the mass ratio of 0,05...0,15 and with 25...30% aqueous solution of potassium hydrocarbonate, in a mass ratio of 0,8...1,2, resulting in a microdisperse colloidal system, which is matured at the temperature of 85...90°C when bubbling it with steam. The obtained mixture is centrifuged. The formed solution, with the capacity of complexation of  $10^2 \dots 10^3$  mgFe<sup>III</sup>/L, may be utilized for deferrization of wines, and the alkaline precipitate is washed with water counterflow for removal of ferrocyanide traces, it is treated with the acid solution resulted from the first treatment, forming a nontoxic precipitate, which may be used in agriculture for treatment of different soils. The formed eluate, after washing of the alkaline precipitate, is reutilized for preparation of the potassium hydrocarbonate solution.

The result consists in the neutralization of ferrocyanide slurry with recovery of potassium ferrocyanide ( $K_4[Fe^{II}(CN)_6] \cdot 3H_2O$ ) in the form of concentrated aqueous solution.

Claims: 3