## a 2005 0050

The invention relates to the chemical industry, in particular to processes for obtaining mixtures composed of alkyl esters of higher acids and diesel fuel, which may be used as biodiesel fuel for the internal combustion engines. The process, according to the invention, includes the transesterification of vegetable fats with lower alcohols in the presence of potassium hydroxide, separation of the mixture and purification thereof. For the intensification of processes for separation and preliminary purification of the alkyl esters from glycerol, potassium hydroxide and other impurities to the reactive mixture is added diesel fuel in the quantity of 20...30% from the mass of the initial fats. For the complete neutralization of the catalyst residues in the fuel there may be used acid salts, for example, disubstituted ammonium phosphate in the quantity of 1, 0...1, 5% from the esters mass.

Claims: 2