



Abstract

METHOD OF REMOVING CATALYST FROM
ETHYLENE- α -OLEFIN COPOLYMER

After a copolymer of ethylene and an alpha-olefin of at least 3 carbon atoms (e.g. propylene) and optionally also a non-conjugated diene has been prepared with the use of a vanadium catalyst and an organoaluminum (e.g. alkyl) compound, the residual catalyst is removed from the polymerisation reaction mixture in a hydrocarbon solvent (e.g. hexane) by

(a) when the catalyst also includes a halogenated ester compound, mixing the reaction mixture with stirring into an aqueous solution of an alkaline compound (e.g. hydroxide of Li, Na or K) in an amount to give an aqueous phase pH of at least 10; or

(b) the halogenated ester compound being optional, oxidising the reaction mixture with an oxidising agent (preferably O_2), e.g. to convert the vanadium to pentavalent V, in an aqueous alkaline solution as in (a).

The organic phase is then separated and washed with water and the polymer is recovered therefrom.

The catalyst residue is thus reduced to very low levels, so that the copolymer is not affected thereby.