

Abstract

Provided is a method of reactivating a used titania catalyst for hydrogenation treatment, capable of improving the catalytic activity of the used titania catalyst for hydrogenation treatment that is obtained by supporting a catalyst component on a titania support and exhibits reduced catalytic activity after having been used for hydrogenation treatment of a hydrocarbon oil, to a level comparable to that of a newly prepared fresh titania catalyst before use. The method of reactivating a used titania catalyst for hydrogenation treatment, the used titania catalyst for hydrogenation treatment being obtained by supporting a catalyst component on a titania support and exhibiting reduced catalytic activity after having been used for hydrogenation treatment of a hydrocarbon oil, includes: a coke removal step of removing a carbonaceous component on a surface of the used catalyst by heating the catalyst in an oxygen-containing gas atmosphere; an impregnation step of impregnating the carbonaceous component-removed catalyst obtained by the coke removal step with a saccharide-containing solution; and a drying step of drying the saccharide-impregnated catalyst obtained by the impregnation step, to obtain a catalyst in which a saccharide is supported.