

METHOD FOR PRODUCING ISOSORBIDE DIMETHACRYLATE

Abstract

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A process for preparing isosorbide di(meth)acrylate by transesterifying alkyl (meth)acrylate with isosorbide, comprising the steps of:

- 10 (i) reacting alkyl (meth)acrylate with isosorbide in the presence of a catalyst comprising titanium(IV) or zirconium(IV) and a stabilizer in the presence of an azeotroping agent which forms an azeotrope with the alcohol bound in the alkyl (meth)acrylate,
- 15 (ii) continuously distilling off the azeotrope of azeotroping agent and alcohol, wherein steps (i) and (ii) are conducted simultaneously until the isosorbide has been essentially fully converted,
- 20 (iii) adding water to the product mixture which comprises isosorbide (meth)acrylate and is obtained in steps (i) and (ii) and removing the hydrolyzate of the catalyst comprising titanium(IV) or zirconium(IV),
- (iv) distilling unconverted alkyl (meth)acrylate and azeotroping agent out of the product mixture,
- 25 (v) distilling off water from the product mixture,
- wherein step (iv) can also be conducted before step (iii) and steps (iv) and (v) can also be conducted in one distillation step.

30 No figure