

METHOD FOR MANUFACTURING METHYLMERCAPTOPROPIONALDEHYDE AND METHIONINE USING RENEWABLE RAW MATERIALS

ABSTRACT

The present invention relates to a method for manufacturing methylmercaptopropionaldehyde (MMP) including at least the following steps: (a) dehydrating glycerol to acrolein from an aqueous solution of glycerol in the presence of an acid catalyst; (b) purifying the aqueous flux from step (a) to obtain a flux of acrolein containing at least 15 wt % of water relative to the acrolein; (c) causing a reaction of the acrolein flux obtained in step (b) with methylmercaptan in the presence of a catalyst; (d) optionally purifying the product obtained in step (c). The method of the invention can also include a reaction of the product obtained in step (c) or (d) with hydrocyanic acid, or sodium cyanide during a step (e) followed by a subsequent transformation to produce methionine or methionine hydroxyanalogue, which can then optionally be purified. The additional use of methylmercaptan and/or hydrocyanic acid derived from biomass as raw materials in the method according to the invention makes it possible to obtain MMP, methionine or methionine hydroxyanalogue made up of 100 % organic carbon from renewable sources.

No Suitable Figure