

PRODUCTION METHOD OF METHYL METHACRYLATE

ABSTRACT

A process for production of methyl methacrylate, comprising the following steps: a thermal decomposition step for thermally decomposing a hydrocarbon having 3 or more carbon atoms to yield a decomposition gas having the total content of propyne and propadiene of 2% by weight or higher; a separation step for separating a mixed solution rich in propyne and propadiene from the decomposition gas; a propyne purification step for subjecting the mixed solution to extractive distillation to separate the mixed solution into purified propyne and crude propadiene composed mainly of propadiene; an isomerization step for subjecting the crude propadiene to isomerization in the presence of an isomerization catalyst to yield crude propyne composed mainly of propyne; and a carbonylation step for reacting the purified propyne obtained in the propyne purification step with carbon monoxide and methanol in the presence of a catalyst having a metal belonging to Group 8 in the periodic table to produce methyl methacrylate.

Fig. 1