

ABSTRACT

The present invention provides a method for producing ϵ -caprolactam which comprises the step of treating, with water, a reaction product containing 1-aza-2-alkoxy-1-cycloheptene, which is obtained by gas phase Beckmann rearrangement reaction of cyclohexanone oxime using a solid catalyst in the presence of alcohol, to eliminate the 1-aza-2-alkoxy-1-cycloheptene. The resulting ϵ -caprolactam usually has a 1-aza-2-alkoxy-1-cycloheptene content of 100 ppm or less, preferably 25 ppm or less, more preferably 10 ppm or less and, therefore, has low free basicity and good qualities.