

A B S T R A C TTHIS SHEET HAS BEEN
REPLACED

- Process for the preparation of ϵ -caprolactam
- 5 starting from 5-formylvalerate acid, ester or amide
(aldehyde compound) in which a reaction in the presence of
ammonia and hydrogen and a subsequent cyclization of the
reaction products thus formed (ϵ -caprolactam-precursors)
to ϵ -caprolactam is performed in the presence of water,
10 wherein that the following steps are performed
- (a) contacting the 5-formylvalerate acid, ester or amide
with ammonia and water under non-hydrogenation
conditions,
 - (b) contacting the resulting mixture of step (a) with
15 hydrogen in the presence of ammonia under
hydrogenation conditions, in which the water content
is higher than 10 wt.%,
 - (c) heating the resulting mixture of step (b) at a
temperature between 200 and 350°C in order to convert
20 the reaction products of step (b) to ϵ -caprolactam.

This Sheet Has Been Replaced

