

Coproducton of 6-aminocapronitrile and hexamethylenediamine

Abstract

5

A process for the coproduction of 6-aminocapronitrile (ACN) and hexamethylenediamine (HMD) by treatment of adiponitrile (ADN) with hydrogen in the presence of a nickel-containing catalyst at temperatures not below room temperature and elevated hydrogen partial pressure in the presence or absence of a solvent comprises, after the conversion based on ADN and/or the selectivity based on ACN has or have dropped below a defined value

- 15 (a) interrupting the treatment of ADN with hydrogen by stopping the feed of ADN and of the solvent, if used,
- (b) treating the catalyst at from 150 to 400°C with hydrogen using a hydrogen pressure within the range from 0.1 to 30 MPa and a treatment time within the range from 2 to 48 h, and
- 20 (c) then continuing the hydrogenation of ADN with the treated catalyst of stage (b).

25

30

35

40

45