Abstract
Process Economics Program Report 7D
CAPROLACTAM UPDATE
(October 2011)

This report is an update of Process Economics Program report 41B Caprolactam and Nylon 6. The capacity and economics for the process of caprolactam production from cyclohexane by nitric oxide hydrogenation have been updated in this report.

The updated process for caprolactam production from cyclohexane by nitric oxide hydrogenation using BASF’s hydroxylammonium ammonium sulfate oximation (HSO) technology is then compared with another process route, DSM’s caprolactam production from phenol by hydroxylamine phosphate oxime (HPO) technology.

The main focus of this report is an evaluation of the techno-economics for these two process routes for the production of caprolactam, with a base case production capacity of 618 million lb/yr, and a discussion of the impact of raw material pricing on product value, and the feasibility of plant construction in the U.S. Gulf Coast region.

The technology review section of the report covers new developments with Beckmann rearrangement.
CAPROLACTAM UPDATE

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