Abstract
Process Economics Program Report 37B
ACETIC ACID AND ACETIC ANHYDRIDE
(November 1994)

This Report presents preliminary process designs and estimated economics for the manufacture of acetic acid and acetic anhydride by carbonylation technology. The three processes evaluated in this report include Monsanto’s low pressure carbonylation of methanol process (BP Chemical acquired licensing rights to this process in 1985), Eastman’s process for carbonylation of methyl acetate to produce acetic anhydride (methanol added to the reaction mixture results in the coproduction of acetic acid in this process), and a process based on BP Chemical patents that coproduces acetic acid and acetic anhydride via carbonylation of methyl acetate in the presence of water. Both the Eastman and BP Chemical processes are back-integrated into the manufacture of the methyl acetate feedstock from methanol and acetic acid.

We have included a discussion of other commercialized acetic acid and acetic anhydride processes as well as potential new processes. A list of the world’s acetic acid and acetic anhydride producers along with their estimated plant capacities and a description of the major acetic acid and acetic anhydride markets are also included in this Report. This Report will be useful to producers of acetic acid and acetic anhydride, as well as to producers of methanol and downstream products such as vinyl acetate monomer.
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