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Monochlorobiphenyl - Dow
Preliminary Cost Estimates

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Introduction

Preliminary production cost estimates of Monochlorobiphenyl (MCBP) for Dow were prepared (Ref. 1) for a range of volumes from 10 to 25M lb/yr. These costs were based on production [illegible] MCS-1016 [illegible] tion with a 12M lb/yr MSC-1016 production.

Additional cost estimates have been requested based on a sales forecast for MCS-1016 of 28M lbs in 1974 decreasing to 8M in 1978 and MCBP requirements increasing from 10-12M in 1974 to 17M in 1978. (See Table 1)

Summary

The new estimate of needs for these two products makes possible a revision of the original cost estimates which were based on adding a second batch still to supply long range requirements. With the lower total production requirements, future needs through 1978 can probably be met by debottlenecking the existing facility.

Following are the assumptions made regarding the debottlenecking required:

1. With minor modifications costing $50M the existing capacity (boilup in column) can be increased by 15%. This would probably provide production capacity for MCS 1016 and the lower quality MCBP through 1978.

2. With replacement of the condensing system and removal of the blanking on the column trays a 40% increase in production capacity can be achieved. This would provide capacity for MCS 1016 and the Dow quality MCBP needs through 1978. Approximate capital cost would be $150M.

3. Similar increases in production capacity of MCS-1016 are assumed from these debottlenecking operations.

Based on these premises the production cost for the two quality MCBP products in 1974 through 1978 are presented in Table 1. Production cost estimates are detailed in Table 2. The major assumption in the production cost estimates is that all of the high boiler fraction can be used in making chlorinated biphenyl product and that they will yield product of suitable quality. These assumptions should be confirmed before the production cost estimates are used in negotiations.

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1. Although tight in the years 1974 and 1978, the debottlenecking approach will probably provide capacity through 1978 for MCBP and MCS 1016 needs.

2. Subject to the full use of and indicated credit for the hair boiler fraction the bulk manufacturing cost of Dow quality MCBP would range from 14.3 to 15.6 ¢/lb. The lower quality MCBP bulk manufacturing cost would range from 13¾ to 14.1 ¢/lb.

3. The figures in Table 1 assume all MCS 1016 requirements are made at Bracket #2 capacity operation rates. Thus any cost associated with unused production capacity are included in the MCBP cost. Bracket #2 operation at below capacity operating rate was used for the MCBP cost estimates.

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Attachments
Reference 1: Memo D. L. Wasson to J. R. Savage; May 4, 1973; "Monochlorobiphenyl for Dow - Preliminary Cost Estimates"