Monsanto

J. R. Savage - B2SL

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Monochlorobiphenyl for Dow

J. K. Grant - 1740
R. M. Kountz - F4WA
A. E. Leisy - 1740
C. Paton - B2SC
W. R. Richard - T3A

TO D. Cova - T3C

It appears possible that we may be able to surmount the legal obstacles to sale of monochlorobiphenyl so we need to study certain technical aspects. Dow is looking for a supply beginning in 1974 of 10-12M Lbs. with the potential ultimately rising to the neighborhood of 25M Lbs. Their desired product composition is as follows:

Biphenyl	< .2%
Orthochlorobiphenyl	>80%
Metachlorobiphenyl	< 2%
Dichlors and higher	< .2%

The ortho and meta contents specified do not appear to be any great problem; however, we do have problems with the biphenyl content and dichlor biphenyl content specified as well as our production capacity.

The first and last problems are interrelated. The capacity bottleneck is due to the large biphenyl stripping requirement. It seems to me that to achieve the volumes requested we would have to considerably debottleneck our biphenyl stripping capability. One good way to do this might be to install a biphenyl stripper, possibly a chain fed system, upstream of the existing column. We could then continuously feed the 1109 crude to the stripper while accumulating stripped crude in a large still pot or bottoms receiver. The resulting product would become a batch feed for the existing column where a final biphenyl stripping and product takeover was accomplished. Let me have your thoughts on what sort of column would be needed for this stripping duty.

I think the .2% dichlor and higher spec is also more severe than we have previously accomplished with the existing column. Do you think the present column is capable of this separation or if not, how much more column might we need. If many more plates are needed, perhaps a new column could be justified and the existing column used for biphenyl stripping duty.

None of the above requirements is considered a must at this time, nor should any laboratory work be begun. We simply want to do some preliminary thinking as to what our capabilities might be so that we can relay these capabilities back to Dow.

J. R. Savage

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