Monsanto INDUSTRIAL CHEMICALS COMPANY

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MONOCHLOROBIPHENYL
FOR DOW

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TO J. R. Savage
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It would be possible to provide Dow with the separate isomers rather than one combined material. I believe we could produce o-monochlorobiphenyl containing on the order of 1/2 to 1% meta plus para isomers and p-monochlorobiphenyl containing 1/2 to 1% ortho. This para fraction would also contain considerable meta isomers (about 16%).

Our present combined material will contain 0.3-0.4% dichlorobiphenyls and very likely trichlorobiphenyls in the ppm range. A separate ortho fraction should contain dichlorobiphenyls down in the ppm range, and probably more highly chlorinated polychlorobiphenyls would be nondetectable. This may be an advantage for both Monsanto and Dow. The para fraction would then be higher in polychlorobiphenyls than the present combined fraction. However, since Dow will very likely be using both crystallization and distillation to separate meta and para isomers in the phenylphenol they will produce, higher levels of polychlorobiphenyls could be tolerated in this starting material (para and meta-chlorobiphenyl).

It would cost more to make such a separation, but it could be done in the 30-tray column in the Aroclor department. I believe the only additional capital expenditure that might be required would be for storage and receivers.

D. R. Cova

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