Appendix G

Monsanto INDUSTRIAL CHEMICALS CO.

FROM (NAME & LOCATION) D. R. Cova - T3C

DATE April 26, 1973

CC J. F. Quinn

SUBJECT MONOCHLOROBIPHENYL FOR DOW

REFERENCE

TO Don Wasson
F4WC

Following is the information you requested on estimated fractionation requirements and balances for making monochlorobiphenyl. First, to meet Dow specifications we would require the following cut sizes and reflux ratios in the WGK 30-tray column:

Forecut (recycle to chlorination)	193#
Transition cut (recycle to next still batch)	41#
Monochlorobiphenyl	100#
Residue (to convert to higher Aroclors)	100#
Total	434#

From 0 to 32% of charge distilled, R/D = 5/1
From 32% to 54% distilled, R/D = 15/1
From 54% to 77% (end of distillation), R/D = 8/1

Now, for the more lenient specifications (biphenyl <.2%, ortho >80.%, meta <4.%, dichloros <1.%), we have the following cut sizes and reflux ratios in the 30-tray column:

Forecut (recycle to chlorination)	154#
Transition cut (recycle to next still batch)	33#
Monochlorobiphenyl	100#
Residue (to convert to higher Aroclors)	60#
Total	347#

From 0% to 32% distilled, R/D = 5/1
From 32% to 54% distilled, R/D = 15/1
From 54% to 78% distilled, R/D = 8/1
From 78% to 83% (end of distillation), R/D = 16/1

D. R. Cova

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