MONOCHLOROBIPHENYL NOTES

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A. E. LEISY
V. BRAWLEY
B. ENGMAN
W. KRULL

1. What is the product?

Geigy has received the following from Dayton:

- 18% Bi ϕ
- 82% mono { 80% ortho, 2% m- + p-
- < 1% dichloro
- C.P. was 22°C

This would probably be acceptable to Geigy, but they would prefer a lower C.P.

Q. Thompson, based on D. Cox's distillation @ JFQ, proposes the following product:

Bi ϕ	18-22%
o-	50-70%
m-	0-5%
p-	12-23%
di-	<1.0%

C.P. would be 12-16°C.

This is an approx. eutectic between Bi ϕ, o-, and p-

How can we set this spec when our test material had a C.P. 22°C?

Savage agrees with Thompson's proposal. Firm specs. have not been set.

Crystallizing point information:

Bi ϕ -	68.8°C
o-	32°C
m-	89°C
p-	77°C

2. What work will be done to determine the chlorination variables of temperature + catalyst?

NONE - Savage sees this handled as an amendment to the current SMP, with Research supplying the background data which Savage thinks is available from Anniston PR + D work.

Oh! B.S.

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Also lime concentration needs to be defined.

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3. Can 1142 be used for slurrying lime and as the barometric leg sealant in the Lt. Ends receiver?

YES, but don't use anything that is lighter (more di-s). Essentially all of the 1142 will stay in the still pot.

4. How will end of product cut be determined?

By volume, or C.P.

Can it also be made by head temperature?
(Will have to look at data again for answer.)

5. To make much monochlorobiphenyl the chlorinators have to be debottlenecked, using the current sales forecast. What capacity should be planned for?

Savage: 1.8 M #/yr. A new forecast is being put out and the numbers are lower. If the chlorinators still need debottlenecking it should be done now.

Who will determine if debottlenecking is needed?

6. What will be done with the HCl generated?

Current plans are to sewer it because it will contain more Bi ϕ than the present off-gas . . . the high line would plug.

Can't never VC B'n!! est. 6#/day mono

15.1 #HCl/cwt mono x 20,000 cwts/yr. x $0.0135/#HCl = $4000/yr.

This HCl credit would be lost plus any HCl generated by other Aroclors produced at the same time as monochlorobiphenyl.

7. How will the chlorinators be debottlenecked?

Need more Cl_2 for MCS-1016; more Bi ϕ flow for mono-.
(See attached list of alternate cases.)

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Price tags will be put on the alternatives.

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8. How will the chlorinator work be paid for?

If this work causes costs over the 10% overrun limit, then a plant project will be written to cover it. CED will do design work and operation will be as a part of CEA 2417.

9. When will the tentative process be written?

EDC 6/1/71 A brief version is available now and is attached.

RM McCutchan

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