Monsanto

FROM (NAME & LOCATION) C. Paton - General Offices

DATE April 18, 1969

SUBJECT PLASTICIZER SALES CALL REPORT

REFERENCE

TO : FILE

cc: M. W. Farrar - JFQ
P. K. Maier - Cincinnati
W. F. Waychoff
E. Wheeler - EMREE
E. C. Wilde - Akron
J. D. Wright - JURIC
J. R. Darby - JFQ

VISIT TO: NCR
Dayton, Ohio

DATE: March 27, 1969

FOR NCR: H. Lauer - Manager
Thacker - R&D
Fitzpatrick - Purchasing

FOR MONSANTO: P. K. Maier
E. C. Wilde
C. Paton

DETAILS:

Pete Maier in setting up this visit had indicated we wanted to discuss (i) recent publicity on Aroclors as pollutants and (ii) research efforts to find an Aroclor 1262 replacement.

The meeting began by referring to previous publicity on Aroclors being indentified in birds (Jensen & Widmark's worker of two-three years ago). At that time, a Dr. Thacker (not a medical doctor) of NCR had contacted E. Wheeler. Lauer did not know what had been said between those two but it had evidently allayed NCR's fears. We presented a copy of the SFO Chronicle article and gave Monsanto's position on the article. NCR said it seemed provocative and some jumping to conclusions were apparent. They agreed that nothing would be gained by Monsanto's entering into a public controversy with the reporter on some of his statements. NCR were very grateful that we brought this to their attention. They want to be kept informed of future developments. Lauer said that NCR would take no action unless a second article appeared specifically

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naming their paper as a source of pollution. Such an article could play into the hands of 3-M's Action paper.

We then got down to a discussion of the technical needs of the dye solvent.

There are two needs:

(i) Aroclor 1242 replacement in existing products.

(ii) Solvents for specialty requirements.

NCR are always anxious to find replacements for Aroclor 1242 to get a lower cost, second source of supply and lower odor.

In the U. S., NCR are now locked into a resin system for both the dye-encapsulated coating and the receiving paper coating. In the U. S., they have switched from Attapulgus clay. The resins now used are PVAcMA (GAF) - EMA from PP&R is an alternative - and a phenolic resin.

In Japan, NCR will use an absorbent clay.

In the U. K., Wiggins Teape are still "leary" of a resin and they will probably stay on clay as they can get the Japanese material cheaper than NCR can in the U. S.

As dye, NCR is getting locked in on CVL due to the shortage of p-phenyl phenol.

Lauer was receptive to the idea of supplying screening tests and a sample of CVL for Monsanto pre-screen candidates to replace Aroclor 1242.

The two main screening tests are:

1. Solubility in CVL
   Must be over 1-1/2%
   Prefer over 3%

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6% CVL in Aroclor 1242 is soluble for several weeks. The solubility must be "stable" for months or even years. NCR in their tests prepare a super-saturated solution and leave it standing. In seven weeks, it levels off at the critical solubility level.

2. The solvent effects the speed of reaction and intensity of color produced with the resin on the receiving paper. This is a fast test and NCR would test this themselves.

One additional drawback of Aroclor 1242 with resin systems is that it contributes to print trade. This was not the case when Attapulgus clay was used.

Of replacements for Aroclor tested, the following were nearest:

a. Mono isopropyl biphenyl
The drawbacks were: price, non-availability and the solubility was not quite good enough although it doesn't contribute to print fade like Aroclor 1242.

b. HB-40
The print is too dull with HB-40 and mono isopropyl biphenyl is better than HB-40 in this regard.

c. Santicizer 141
This is labelled "interesting" and five gallons were ordered for further tests.

TCP is being evaluated in a specialty grade of paper. We brought up Santicizer 192. Although we are aware this has been killed, NCR's world-wide usage of Aroclor 1242 in 1968 was 8.3 M pounds. If Santicizer 192 does the job, I am sure we would reconsider manufacture. We raised the point of the poor copies obtained with NCR paper compared to the good copies now obtainable with ultra-thin, no smudge carbon papers. Lauer agreed on this but it seems that one answer lies in coating lighter papers.

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We gave NCR a list representative of all our plasticizers. NCR are willing to test about twenty-five representative candidates.

NCR's Japanese plant will start up in April. Thacker will leave for Japan April 13. He stated that Kanegafuchi's price was very low. (M&K report it is around 14.5 cents/pound.)

Attention P&M
We do not want any mention made of our contract being extended to cover Japan at this stage. MCW and I discussed this after the call.

Lauer did not seem too happy that we had not told them of a source in Japan prior to M&K's plant coming on stream. The Japanese plant will start up on U. S. export material. Mitsui had brought Kanegafuchi to NCR's attention. Mitsubishi and Mitsui are licensees of NCR in Japan.

NCR have not finally decided on their plant location in E.E.C. We quoted for Geissen in Germany. The alternative sites are in Holland and Belgium. Quotes were requested.

Action

1. (P&M)
   Follow up on obtaining sample of CVL and screening tests from NCR per Lauer's suggestion.

2. (Product Group)
   Inform M&K of Thacker's Japanese trip - done.

3. (Product Group)
   Submit quotations on Aroclor 1242 for Holland/Belgium.

4. (P&M)
   Submit sample of Santicizer 192.

5. (P&M)
   Can you clarify position with PP&R on resins used. Is PVAc/MMA used in dye-coating and a phenolic in receiving paper. Do we supply any MMA and phenolic.

Cumming Paton

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B.P.S. - MVP/JRD/WFW

Santicizer 1714	75/25	Aroclor 1254/HB-40	No Good
Santicizer 1715	75/25	Aroclor 1248/HB-40	Interesting
Santicizer 1716	75/15/10	Aroclor 1254/HB-40/DEP	No Good

Can we make alkyl diphenyls?

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