Monsanto

FROM (NAME & LOCATION) R. H. Munch - TIJ

DATE : June 12, 1975

SUBJECT : AROCLOR 1016, CAR 8620, 5/21/75 to G.E.

REFERENCE :

TO : FILE

cc: J. G. Bryant TIJ
L. T. Johnson 1650
R. Kuster 1740
W. R. Richard T3A
P. L. Slayton 1650
D. Wood B2SD

Dr. R. Stenger called me to tell me that his people were concerned that Aroclor 1016, Lot KE05-728, shipped to them 5/21/75 in MONX 8620, was not identical to their standard sample as measured by differential infrared absorption comparison although it did meet all formal specifications.

I secured reserve samples from the tank car at the time of shipment, the storage tank from which it was taken as well as the standard they were using, Lot KE03-713 shipped to them in the same car on 3/24/75. G.E. sent us a sample from the car after its arrival in Hudson Falls.

These were investigated by the G.E. differential technique using 0.098 mm cells and by standard methods using a 1.14 mm cell. One sample was spiked with 0.049% Cenco Hynac oil. The conclusion was that all the unspiked samples were alike within experimental error. Calculations based on the absorbance of the spiked sample indicated that the maximum aliphatic hydrocarbon content of these samples could be no more than 0.005%.

The fact that the four samples named above plus a fifth one picked at random were all identical by differential infrared absorption indicates that our product is uniform as judged by this test.

I pointed out that if they used the material they would add 0.3% Unox 4206, an aliphatic material. Stenger then volunteered that they had made surprisingly good capacitors using chlorinated aliphatic fluids.

Stenger also said that his people had run a power factor stability test in which they measured the power factor as usual at 100°C then allowed the sample to stand in the cell for 24 hours and remeasured. He reported the following:

Time	Power Factor	
	Standard KE03-713	KE05-728
0	0.15%	4.5%
24 hrs.	0.37	.97

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He said they wanted to reject the car because of the aliphatic hydrocarbon content and because the power factor was not stable even though the change with time was a decrease.

I explain that it is almost universal that a sample left in a cell and remeasured after 24 hours will decrease in power factor unless a dirty cell is used. One frequent cause for this that we have demonstrated is loss of water while the sample is kept at 100°C.

We Porocel treated a sample of the sample returned by G.E. and found that the treated material gave a dissipation factor of 0.0003.

In view of these facts, I told Dr. Stenger that I could see no technical reason for them to return the car.

R. H. Munch

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