Monsanto

FROM (NAME & LOCATION): B2SH Cumming Paton

DATE: November 17, 1971

cc J. J. Roder/D. E. Roush

SUBJECT: Future of FR Fluids

REFERENCE:

TO → B2SL T. L. GOSSAGE
B2NK W. B. PAPAGEORGE

Thermal FR

I attach a memo from John Haggart on the future of Santotherm FR fluids in new non-food systems. I think it is essential that we give an unambiguous answer one way or the other. I think it is also important that we get our higher management to agree with the decision and that we will stick with it. My thoughts follow.

Right

We do not intend to supply any new heat transfer system with Santotherm FR in any part of the world.

Why do I take this stand?

1. Our posture to be creditable and responsible must be the same world-wide.

2. We have turned down sufficient new systems in the past 2-3 months to create severe OEM and customer backlash if we are found to be making exceptions anywhere.

3. MCS or Aroclor 1016 is not an acceptable long-term replacement for Aroclor 1242 in FR-1. Although it might not have such persistence as Aroclor 1242, leakage into products heated by these fluids would still be a real and uncontrollable problem. Already in USA and Canada customers are writing us and other suppliers asking if the products they buy contain PCBs. They don't qualify PCB by phases like "non-biodegradable" or "lower than penta chlorobiphenyl" etc. They state simply "PCB". This development will force more and more heat transfer systems away from PCBs even if we were still to offer them.

4. Bayer may consider heat transfer a controllable situation but until a few months ago Bayer did not publicly consider PCBs a problem in any application. The fact is that two of the most sensational allegations concerning PCBs apply to heat transfer: rice in Japan and fish meal in USA. One hates to knock one's competitors but if Bayer wants to stick to that I think they're on thin ice.

5. OEMs play a large part in designing heat transfer systems and in fluid selection. If they find Monsanto still offering FR fluid it will be awfully tempting for them to design for it and them come up with umpteen excuses why they can't settle for anything else.

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6. You will have read in W. Richard's monthly research report that Anniston is using "Therminol" OM-16 which is a chlorinated terphenyl with FR-3 characteristics in the chlorinated terphenyl plant to replace FR-1. We do not envisage promoting this product outside Monsanto as a fluid until we are 200% certain the chlorinated terphenyls won't go the same way as PCBs. At this stage I wouldn't bet on it. (This is confidential.)

John's memo specifically referred to a cement works. There is a new cement plant in the USA that has been designed for Therminol 55 and will be filled in January.

Cumming Paton

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Attachment