

Monsanto

FROM
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DATE : October 28, 1983

CC. W. B. Papageorge

SUBJECT : Non-Flammable Dielectric Fluids -
Growth Opportunity

REFERENCE :

TO : C. J. Brez - B3SA
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With the banning and possible near future phase-out of PCB dielectric fluids, there may be a major opportunity for a new, environmentally safe, fire resistant dielectric fluid having favorable properties similar to PCBs (good properties).

New contemplated PCB rules may dictate the precipitous phase-out of all electrical equipment (particularly transformers and capacitors) now in use that contain PCBs.

Currently, EPA estimates about 750M pounds of PCB dielectric fluids are still in use.

The only new dielectric fluids being marketed for retrofill and new equipment are:

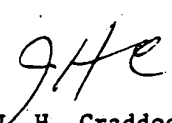
1. Silicone fluids (Dow-Corning, General Electric, major factors).
2. Other chlorinated aromatic hydrocarbons (tri/tetra chlorobenzenes - these have deficiencies in that they form dioxins under fire conditions.)

At one point in time Monsanto had more expertise on non-flammable dielectric fluids than anyone in the world. We also researched alternative non-PCB fluids possibly including silicones. The time may be appropriate to re-evaluate the dielectric fluid market if the chemistry were right to tie flame resistant dielectrics, hydraulics, and heat transfer fluids again.

Your high temperature heat transfer fluid (Therminol 75) might be a lead to replacing very flammable mineral oil dielectric fluids, for example.

I realize the politics and ghosts of PCBs are formidable but I offer the suggestion for your consideration.

I'd be happy to give you an hour or so tutorial on this subject.


J. H. Craddock

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