Monsanto

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION): W. C. Engman, Krummrich

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SUBJECT: THERMINOL SYSTEM CHANGE-OUT PROBLEMS

REFERENCE:

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TO: Mr. D. E. Roush
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In the Spring of last year, all of the Therminol systems at WGK were changed out from Aroclor to T-66 or T-55. In many of these units, we followed the recommendations of Marketing and we drained the Aroclor as best we could. We refilled with the substitute fluid without cleaning the system.

About two weeks ago, we discovered the vent line plugged on our heating unit in Dept. 248. Amount of pressure buildup was unknown but substantial. Apparent cause was breakdown of Aroclor forming HCl. The HCl reacted with the steel system forming ferrous chloride. The ferrous chloride sublimed plugging the vent.

In Dept. 239, which was given a T-66 rinse, we found the vent nearly plugged. Other systems are being checked.

We have analyzed the T-66 in all of our heating systems for Aroclor. Results are:

Dept.	Aroclor 1248	
245	8.1%	(T-66 changed out once)
248	12.5%	
273	4.2%	
255	<0.5%	(system solvent washed)
239	being analyzed	4 %
270	23.4%	Units transferred to Edwin Cooper
275	8.9%	
258	26.4%	

Based on our experience, I strongly recommend that any Therminol system, customer or Monsanto, be thoroughly washed and cleaned when changing from Aroclor to another fluid. Not only is there a potential safety hazard but there is also a continued potential for PCB pollution losses.

MONS 099098

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