May 19, 1970

Alexander M. Earle, M. D.
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Dear Dr. Earle:

I want to apologize for this tardy reply to your letter of March 24 in which you ask about our products Therminol FRO and Therminol 66. I have enclosed a toxicity and safe handling statement covering the Therminols in general. Although Therminol FRO is not included in this list, it is covered by the statement. I have also enclosed a copy of a letter concerning an environmental problem that has arisen with the higher Aroclors, particularly 1254 and 1260. Therminol FRO is not compounded with these Aroclors but uses Aroclor 1242 which has not been indited as an environmental contaminant. I have additionally send you our technical bulletins covering the physical characteristics of FRO fluids and Therminol 66.

In reference to Therminol 66, we have a summary of the toxicity work done on this product and it is as follows:

1. Acute oral toxicity in rats--Therminol 66 wae fed to white rats up to a dose level of 29,460 mg/kg with no fatal results. These data indicate the compound is relatively harmless by this route of administration.

2. Acute oral toxicity in rabbits--White rabbits were fed concentrations greater than 19,640 mg/kg and less than 29,460 mg/kg for lethal results by oral ingestion. All concentrations over 4,900 mg/kg produced moderately severe

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2. (Continued)

malaise lasting one to two days. The lethal results produced diarrhea followed by collapse shortly before death. There were no significant blood changes although gross examination did show edema, emphysema and congestion in the lungs with occasional bloody urine observed.

3. Subacute feeding studies--White rats were fed 6,680 mg/kg of body weight per day for four months. The consumption of food during this period was normal but the weight gain was subnormal. However, histopathological examination revealed no significant lesions.

4. Therminol 66 was tested full strength as well as plasticized in vinyl film according to the Schwartz technique on 203 individual humans. The results indicate the material is neither a skin irritant or skin sensitizer.

As you will note from these data Therminol 66 is not a very toxic substance by any route of administration. We have had very little trouble with the Therminol fluids of any kind with our own manufacturing personnel and those of our customers.

Sincerely,

Jack T. Garrett
Manager, Industrial Hygiene

JTG:ju

Enclosures

b.c. J. R. Fallon
D. E. Roush