MONSANTO CHEMICAL COMPANY

Washington, D. C.

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Pydraul 150

I have discussed the calculation of parts per million with Mickey Alpert of BuShips today. They use a method referred to in the Industrial Hygene and Toxicology Magazine titled "Patty." Reference is page 132, Vol. 1. This is the simplest method and they claim it gives the same answer as the longer approach. Parts per million concentration is obtained by dividing the partial pressure of the material by the total barometric pressure and multiplying by 1 million. In the case of Aroclor 1242 they divided the partial pressure of .001 mm Hg by 760 mm Hg and multiplied by 1 million and obtained approximately 1.3 parts per million. This is how they feel Trion makes reference to .2 parts per million being equivalent to 15 to 20% saturated vapor.

In the case of Pydraul 150 Alpert feels that the parts per million would be equal to 1.3 multiplied by the mole fraction of Aroclor 1242. If this is true, we are nearer to being acceptable to the Navy but their toxicity limit of .2 parts per million would be approximately 50% of the saturated vapor pressure at 80° F. The information they want is as Dr. Kelly pointed out in his memo of June 7. Should their mono ethanol amine air scrubbing system help at all, we might be in good shape.

C. Robert Sido

S/s

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