

December 13, 1963

Mr. P. O. Stephenson, Secretary
Safety and Fire Protection Committee
Manufacturing Chemists' Association
1925 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Mr. Stephenson:

Mr. MacCutcheon has asked me to reply to your letter of November 20th inquiring about information on safety in the manufacture of 2,4,5-trichlorophenol which might be passed on to Mr. Drew of Cambridge Research Incorporated.

As you can probably appreciate, I am not in any position to discuss processes for the manufacture of 2,4,5-trichlorophenol. We are aware, however, and the literature teaches us that certain processes under certain conditions can yield extremely toxic substances as by-products in certain 2,4,5-trichlorophenol processes. The identity of some of these is known and others are highly toxic by-product might be associated with one particular process, others may well appear as a result of other processes. As an example, I might refer you to the following reference which describes one highly toxic and dangerous by-product of a process. The article is entitled, "A Technique for Testing Anesthetic Potency in Rabbits, Applied to the Potent Anesthetic, 2,3,7,8-Tetrachlorodibenzo-p-Dioxin" by E. Linn Jensen, M.D. and Helen Briscoe, Ph.D. This article was published in Investigative Dermatology, Vol. 39, p. 511-518 (1962). Also, the article by Kufmann entitled, "New Experiences with Highly Toxic Chloro Hydrocarbon" published in the Archives of Experimental Pathology and Pharmacology, Vol. 232, No. 1, 1957, pages 223-239, and the one by Bauer, Schulte and Spiegelberg, published in the Archives für Gesamtpathologie und Experimentelle Medizin, 18, 539-555 (1961) all point out the serious nature and the hazards associated with certain impurities which may be produced in the manufacture of trichlorophenol under certain conditions. I might add that trichlorophenol itself is very low in toxicity, both upon the skin and upon ingestion.

In my opinion, the most serious hazard associated with the production of 2,4,5-trichlorophenol stems from the side

MM069799

DOW 747098

Dr. V. O. Schmitt

- 8 -

December 19, 1953

Enclosed which are your letter. Please be, if possible, the possibility of planning the completion, but I doubt if there are any other Dr. Schmitt is concerned about.

You are free to pass this information on to him as you see fit.

Sincerely yours,

V. E. Lewis
Electronical Research Laboratory
1701 DuPont

VEM/cj

cc: S. H. Robertson
H. R. Dwyer
V. E. Lewis (1)
227.4-12-23
227.4-12-20 -

DOW 747099