June 27, 1958

Mr. Phillip Tatman
Portland Cement Research Corporation
5400 West Harrison Street
Skokie, Illinois

Dear Mr. Tatman:

Mr. Schalk has asked me to forward toxicity information on our product Pydraul 625.

I have enclosed a copy of our Pydraul F-9 bulletin and several pages of a circular entitled "Discussion and Interpretation of Pydraul F-9 Toxicity Studies". These are forwarded because of the similarity in composition of Pydraul F-9 and Pydraul 625 and to add background to the comparative data indicated below.

	Pydraul F-9	Pydraul 625
Oral LD_{50} (Rats)	10.6-15.8 g/kg	32.6-36.5 g/kg
Oral MLD (Rabbits)	0.57-0.85 g/kg	4.25-5.0 g/kg

In animal studies designed to indicate skin and eye irritation potential, Pydraul 625 proved to be less irritating than Pydraul F-9. In acute vapor inhalation studies, rats survived 6-hour exposures to atmospheres saturated with vapors of either product.

The above comparisons are significant since Pydraul F-9 has been used since 1949 with no reports of skin irritation or other toxic effects. As pointed out on page 18 of the Pydraul F-9 bulletin, accidental contact of Pydraul F-9 with eye tissues may result in burning and smarting. This has been reported in a number of instances where the fluid has accidentally been splashed or sprayed in the eyes. In no case has there been any permanent damage to sight or eye tissues.

The question of toxicity of decomposition products usually arises in connection with these fluids. The enclosed "Discussion and Interpretation, Etc." points out that the toxicity of Pydraul F-9

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decomposition products when the fluid was dropped on heated surfaces is roughly comparable to that of the decomposition products of petroleum base fluids as far as short term massive exposures are concerned. In addition, similar comparisons may be made with other fire resistant fluids which have been in use for a number of years without any reports of toxic effects.

If I can be of any further assistance or if you have additional questions, please let me know.

Very truly yours,

Elmer P. Wheeler
Assistant Director
Medical Department

EPW:dh
Enclosures 2

cc Mr. Howard I. Armstrong
Mr. Walter E. Schalk
Monsanto Chemical Company
Chicago, Illinois

bcc Mr. Richard Davis-GO

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