September 2, 1958

Mr. Charles J. DeSimone
Senior Industrial Hygienist
Special Health Services
Pratt & Whitney Aircraft
East Hartford 8, Connecticut

Dear Mr. DeSimone:

Thank you for your letter of August 26 requesting toxicity information on Pydraul AC.

In animal toxicity screening studies with this product, the oral lethal dose in rats is approximately 40 grams per kilogram and in rabbits, 3.5 to 4.5 grams per kilogram. The greater sensitivity of rabbits is typical of this type of fluid. This lethal dose is of such an order, however, that in either case the fluid may be considered only "slightly toxic" to man from the standpoint of accidental ingestion of single doses.

The fluid may be absorbed through the unbroken skin of rabbits in quantities resulting in death, but again the minimum lethal dose (4.0 to 5.0 grams per kilogram) is such that accidental massive skin exposures to man do not present a hazard. Rats survived a 6-hour exposure to an atmosphere saturated with vapors of the fluid.

Skin and eye irritation studies with rabbits developed numerical scores which classify the fluid as a mild irritant. The studies with animals, however, do not indicate the moderately severe pain which man experiences if there is accidental contact with eye tissues. In the instances where there has been accidental splashing in the eyes, reports indicate "burning" or pain out of proportion to the amount of temporary injury to eye tissues. Neither in the case of animal studies nor in the instances of human eye exposures has there been any permanent damage to eye tissues. If there is accidental contact with the eyes, we recommend copious and prolonged washing of the eyes with water. To relieve irritations physicians have used 1% pontocaine solution as well as ophthalmic cortisone acetate medication.

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Pydraul AC may exert a solvent action on the skin and we therefore recommend that excessive, prolonged and repeated skin contact be avoided to prevent defatting of the skin.

Except for the injury to eyes indicated above, we know of no toxicity problem which has arisen with Pydraul AC. A copy of our Pydraul AC bulletin is enclosed for your information.

If I can be of any further assistance, please let me know.

Very truly yours,

Elmer P. Wheeler
Assistant Director
Medical Department

EPW:dh
Enclosure 1

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