April 8, 1957

Mr. James O. Lofstrom
Standard Oil Company
30 Rockefeller Plaza
New York 20, New York

Dear Mr. Lofstrom:

I have been asked to forward to you toxicity data on our fluids, Pydraul F-9, Pydraul 150, Pydraul 600, and Pydraul AC.

Pydraul F-9

There has been considerable toxicity research on Pydraul F-9. Attached is a discussion and interpretation of the toxicity studies. The results are also summarized in a briefer fashion on page 18 of the attached Pydraul F-9 Technical Bulletin.

Pydraul 150

The toxicity report on Pydraul 150 indicates that it is practically innocuous when fed orally to rats since the animals survived single doses of 28.5 grams per kilogram with loss of appetite and severe diarrhea as the only toxic effects. The fluid apparently is not absorbed through the unbroken skin of rabbits since this species survived doses up to 9.5 grams per kilogram of body weight. In rabbit skin and eye irritation studies, Pydraul 150 was no more irritating than a 10% soap solution tested similarly. As indicated with Pydraul F-9 above, however, Pydraul 150 will cause severe pain if there is accidental splashing in the eyes of humans. Rats survived a 6-hour exposure to an atmosphere saturated with Pydraul 150 vapors.

Pydraul 600

The oral lethal dose for rats is approximately 30.5 grams per kilogram. When applied undiluted to the unbroken skin of rabbits the lethal dose was from 3.9 to 5.2 grams per kilogram. Animal skin and eye irritation studies indicated that Pydraul 600 is not a skin irritant. We know from experience with humans that accidental splashing in the eyes does cause severe pain but no permanent injury. Rats survived a 6-hour exposure to an atmosphere saturated with the vapors of Pydraul 600.

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Pydraul AC

The oral lethal dose in rats is approximately 40 grams per kilogram and the minimum lethal dose by skin absorption (in rabbits) is 4.0 to 5.0 grams per kilogram. Rabbit skin and eye irritation studies indicate that Pydraul AC is not a serious irritant. Accidental contact with the eyes in the case of humans will result in irritation but no permanent damage. Rats survived a 6-hour exposure to an atmosphere saturated with vapors of Pydraul AC.

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

Sincerely yours,

Elmer P. Wheeler
Assistant Director
Medical Department

EPW:dh
Enclosures
cc Mr. M. G. Plummer