CC Mr. R. P. Sullivan - New York
Mr. M. C. Plummer - Robts Bldg.

February 20, 1957

Mr. C. D. Popperman
Director of Safety
Crucible Steel Company
Sanderson Halcomb Works
Syracuse, New York

Dear Mr. Popperman:

Mr. R. P. Sullivan of our New York Office has requested that I send you toxicity data on our product, Pydraul 150.

The toxicity report on this fluid indicates that it was practically innocuous when fed orally to rats. 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 is apparently not readily absorbed by the skin of rabbits and caused no serious effects since animals survived a dose up to 9.5 grams per kilogram of body weight. With this dosage we normally find that animals display discomfort and loss of appetite due to being restrained and the large body surface area covered by the test material.

The numerical scores for irritation to the skin and eyes are less than we experience with a 10 per cent aqueous soap solution when tested under similar conditions. We know from experience in humans, however, that the animal test does not indicate the pain which humans experience if there is accidental splashing in the eyes.

We have had reports of severe smarting and pain when this has occurred with workers. In all cases reported, however, they responded to the use of an ointment or solution containing an anesthetic such as 1 per cent pontocaine and there have been no reports of damage to any eye tissues. Of course, in case of accidental eye contact, there should be immediate flushing with copious quantities of water as with any foreign body or industrial chemical. This is not to imply that if such flushing is not possible that there will be serious eye injury, but only to emphasize the usual first aid procedure for such an occurrence.

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In regard to vapor inhalation, it appears that six-hour exposures to heavy atmospheric concentrations are not lethal. Several of us in the Medical Department and our Research Department recently had occasion to inhale a mist of Pydraul 150 atomized with the equipment common in medical offices for nasal and throat sprays. Although our exposure was not prolonged, it was acute and our subjective response was as mild as that experienced with a petroleum or mineral oil fluid of similar viscosity.

If you have any further questions, please let me know.

Very truly yours,

R. Emmet Kelly, M.D.
Medical Director

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