Monsanto

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PYDRAUL F-9

TOXICITY AND SAFE HANDLING INFORMATION

Extensive animal experimental work has been done on Pydraul F-9. In the case of oral feedings, it was found that the minimum lethal dose for rats was 10.6 to 15.8 grams per kilogram of body weight. In rabbits, the oral MLD was 0.57 to 0.85 grams; in both cases the undiluted material was introduced into the animal stomach by means of a rubber tube catheter.

Pydraul F-9 was patch tested full strength according to the method of Schwartz and Peck, which is the standard test for industrial chemicals. Two hundred and five volunteers were tested and there was no evidence of primary skin irritation or sensitization.

The material was tested for its vapor phase toxicity by exposing animals to saturated atmosphere concentrations in suitable chambers. This part of the investigation involved not only the vapors of Pydraul F-9 itself but also experiments where the fluid was dropped on Inconel surfaces heated to 1050°F and 1250°F. In all cases the toxicity was roughly comparable to that of petroleum-based hydraulic fluids as far as short-term massive exposures are concerned.

When splashed or sprayed into the eyes, Pydraul F-9 causes burning and smarting; however, there have been no reports of lasting damage. In treating eye irritation following introduction of Pydraul copious and prolonged washing is recommended. To relieve the irritation, physicians have used 1% pontocaine solution as well as ophthalmic cortisone acetate solution.

Regarding the effect of Pydraul F-9 on workers, we have not experienced any injuries during its manufacture. We advise in safe handling that following prolonged or repeated skin contact, the material be washed off and that the material be kept out of the eyes. If prolonged contact with the decomposition products at elevated temperatures should occur, respiratory protection is necessary. For short periods such as would occur in turning off a machine following a breakdown, no such protection is necessary.

R. Emmet Kelly, M.D.
Medical Director

May 3, 1968