

LIBERTY MUTUAL BUILDING, ONE SOUTH WACKER DRIVE,
CHICAGO 6, ILLINOIS ★ FINANCIAL 6-4400

July 23, 1964

Mr. Jack T. Garrett, Manager
Industrial Hygiene
Medical Department
Monsanto Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63166

Dear Mr. Garrett:

During a recent visit to the Johnson Motor Division - Outboard Marine Corporation, Waukegan, Illinois, Mr. R. L. Mitchell, Safety Director, asked if I would see if I could find out potential health hazards and your recommended precautions for using your Pydraul A-200 under their particular circumstances.

They use Pydraul A-200 in the hydraulic systems of their large aluminum alloy die casting department. What is of particular concern to Mr. Mitchell are the occasions when a line ruptures or a joint leaks and the hydraulic fluid is sprayed onto the hot equipment or even into the molten aluminum pots. While not a daily occurrence at every machine, this may occur several times a week in the department.

When this hydraulic fluid goes into the molten metal pots which are held near 1400 ° F, dense white clouds of acrid smoke are given off. What is the smoke most likely to be composed of and what precautions, if any, would you advise workers in the immediate area to take to protect themselves? If the hydraulic fluid is sprayed onto the skin and clothes when such ruptures occur, are there any precautions necessary or advisable?

We partially soaked a small piece of cotton cloth with Pydraul A-200 and ignited the dry portion. The flame went out when it burned to the portion wet with the hydraulic fluid. Material furnished Mr. Mitchell indicated Pydraul A-200 had an auto ignition point of 1200° F but no fire occurred when a small

amount of the fluid was deliberately poured into the 1400° F metal pot. Ignited with a match the smoke flashed and the liquid on the surface of the pot then continued to burn.

Your Mr. Guion in St. Louis and Mr. Schumacker and Mr. Hempel here in Chicago are familiar with Johnson Motor's use of Pydraul A-200 if you wish further information before answering. Johnson Motors is not dissatisfied with the Pydraul A-200. Rather, they appear to consider it one of the best fluids they have used. They are simply interested in whether they need to do anything additional to give adequate protection to their employees.

Sincerely yours,

Richard H. Davis
Industrial Hygieniest
Loss Prevention Department

RHD/de

cc: Mr. R. L. Mitchell, Safety Director
Johnson Motors Division