February 14, 1969

Mr. D. A. Greschaw
Industrial Hygienist
Ford Motor Company
3001 Miller Road
Dearborn, Michigan 48121

Dear Mr. Greschaw:

In answer to your letter of February 7 directed to Mr. Elmer P. Wheeler, I have enclosed a copy of your questionnaire filled out to the extent of our data.

In addition, I have enclosed a copy of our resume of the toxicity of Pydraul 312. This is a representative material in the Pydraul series and gives an example of the hazards of these materials.

If you are interested in any specific Pydrauls, please inform us.

Sincerely,

Jack T. Garrett
Manager, Industrial Hygiene

JTG:cjs

Enclosures

MONS 090964

Ford Motor Company

Reply to:
3001 Miller Road
Dearborn, Michigan 48121

THE AMERICAN ROAD
DEARBORN, MICHIGAN
February 7, 1969

Mr. E. P. Wheeler, Manager
Environmental Health
Monsanto Chemical Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63166

Dear Mr. Wheeler:

We are submitting the enclosed Chemical Safety Data Questionnaire for the series of Pydraul Hydraulic Fluids which we understand are manufactured by the Monsanto Chemical Company. We would appreciate having this form completed by your personnel, with particular attention to composition and information on studies of decomposition products in the event of abnormal temperatures, with precautions advised.

This request is for hazard evaluation purposes only and information forwarded will be held in confidence if so requested.

Sincerely yours,

FORD MOTOR COMPANY

D. A. Greschaw
Industrial Hygienist

Enclosure

MONS 090965

Please return completed form to:

Ford Motor Company
Central Medical Services Building
Industrial Hygiene
3001 Miller Road
Dearborn, Michigan 48121

CHEMICAL SAFETY DATA QUESTIONNAIRE

MATERIAL Pydraul 312
Manufactured by Monsanto Co., questionnaire completed by J. Garrett

1. Toxicity (please list as none, slight, moderate, extreme, or unknown)
   Ingestion Slight (Oral LD_{50} in Rats 6500 mg/kg)
   Inhalation Moderate (See attached report)
   Absorption None

2. Irritation (please list as none, slight, moderate, extreme, or unknown)
   Eyes Slight (in humans the resulting pain is out of proportion to the
   Skin Slight degree of irritation)
   Respiratory tract Moderate

3. Skin sensitizer: Yes ____; No X

4. Estimated threshold limit value Not established (suggest 1 mg) cu meter)

5. Precautions for normal conditions of use: Avoid repeated and prolonged contact with the skin. Avoid inhalation of vapors if fluid is used at elevated temperatures

6. Recommended protective equipment None should be required during normal handling at ambient temperatures

7. Warning properties (odor, irritation to eyes, nose or throat):
   Mild chlorinated hydrocarbon distinctive odor. High concentration irritating to eyes, nose, and throat

8. First aid and medical procedure for excessive exposures:
   External Wash with soap & water - Avoid prolonged & repeated skin e:
   Internal Induce emesis - Refer to physician for symptomatic treatme:

9. Is material flammable? Fire resista explosive? ____
   If answer is yes to either question, what is:
   Flash point 365°F (Open cup)
   Ignition temperature Auto ignition temp 780°F
   Explosive limits --
   Specific gravity 1.104 to 1.120
   Boiling point ____
   Vapor pressure mm Hg at 25°C ____
   Vapor density >1
   If the flash point changes during evaporation, give data: ____
   Does the material decompose violently when exposed to air? water? heat? strong oxidizers No

MONS 090966

What products might be formed in the event of fire or abnormal temperatures?
HCL, CO, CO_2, soot, aldehydes, phenolics

suitable extinguishing agents: Foam, fog or CO_2

Corrosive action on automotive materials such as: metals; plastics; rubber; lacquers; enamels; fabrics: Not corrosive to metals, may have solvent action on some synthetic materials

10. List the components by chemical names and the approximate percentage of each:
a) _____ d) _____
b) _____ e) _____
c) _____ f) _____
Phosphate ester base fluid containing chlorinated hydrocarbons

11. Give procedure in case of breakage or leakage: Clean up as with any petroleum lubricating oil or hydraulic fluid

12. Transportation and storage requirements: No special requirements

All data requested on this form is for hazard evaluation purposes only and will be held in confidence as proprietary rights if requested.

Ford Motor Company
Industrial Hygiene Unit
Industrial Safety Section

MONS 090967