DATA SHEET FOR TOXICOLOGICAL AND SAFE HANDLING INFORMATION

(Please Complete Applicable Sections)

1. Product name, number, synonym: Pydraul 312
2. Manufacturer's name: Monsanto Company
3. Manufacturer's address: 800 N. Lindbergh Boulevard, St. Louis, Mo 63166
4. Procedure in Case of Breakage or Leakage: Clean up as with any petroleum lubricating oil or hydraulic fluid.
5. Transportation and Storage Requirements: No special requirements
6. First Aid Treatment:
   a. Skin contact: No serious immediate effect. Wash with soap and water to avoid prolonged and repeated skin exposure.
   b. Eye contact: Flush for at least 15 minutes with water. Get medical attention. Physicians have used pontocaine solution and ophthalmic cortisone eyedrops to relieve smarting and irritation.
   c. Inhalation: Low degree of hazard due to low volatility at normal temperature.
   d. Antidote in case of swallowing: Induce emesis and refer to physician for symptomatic treatment.
7. Physiological Properties:
   a. Acute oral toxicity: Oral LD_{50} in rats approximately 6500 mg/kg
   b. Local effects upon eyes: In animals, mild irritation. In humans causes mild irritation or inflammation but with pain out of proportion ~~to degree of irritation.~~
   c. Local effects upon skin: Classed as mild skin irritant. Solvent action may remove natural fats and oils from surfact of skin
   d. Estimate of acute hazard by inhalation (volatile materials): Low vapor pressure results in low degree of acute hazard. Laboratory animals survived 6 hours exposure ~~in atmosphere saturated with vapors.~~
   e. Warning Properties (Odor, irritation to eyes, nose, or throat): Mild chlorinated hydrocarbon distinctive odor. High concentration irritating to eyes, nose and throat.
   f. Estimated threshold limit value (if not on current list by American Conference of Governmental Industrial Hygienists): ~~Not established. Suggest 1 mg/cu meter.~~
8. Chemical and Physical Properties:
   a. Specific gravity (water=1) 1.104 to 1.120
   b. Vapor density (air = 1)
   c. Vapor pressure mm Hg at 25°C.
   d. PH

MONS 071278

e. Corrosive action on aircraft materials such as: aluminum; magnesium; plexiglass; rubber; lacquers; enamels; fabrics: Not corrosive; may have solvent action on some synthetic materials.

f. Does the material decompose violently when exposed to air? Water? Heat? Strong oxidizers? No.

g. For mixtures give the percentage composition of ingredients:

Compound	Percent
CONFIDENTIAL - phosphate ester chlorinated biphenyl and a selected high viscosity petroleum fraction of low volatility.	

Note: For example, generalizations such as petroleum hydrocarbons, alcohols, ketones, chlorinated hydrocarbons, etc. are not adequate for toxicological evaluation. Proper chemical names must be known.

h. Does the material generate heat through polymerization or condensation? No

9. 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.

10. Recommended Protective Equipment: None should be required during normal handling at ambient temperatures

11. a. Flash point °F: Closed cup XXX ; Open cup 365° F; If F.P. changes during evaporation, give data: Fire resistant

b. Explosive limits (% vol. air): Lower ---- ; Upper -------

c. Susceptibility to Spontaneous Heating: Yes ; No X

d. Fire point °F 560° F Fire resistant; Auto ignition temperature °F 790°F

e. Vapor density > 1

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

g. Suitable extinguishing agents: foam, fog, or CO_2

12. Information Furnished By: R. Emmet Kelly, M.D.
Title: Medical Director
Company: Monsanto Company
Address: 800 North Lindbergh Blvd. St. Louis, Missouri 63166
Date: May 24, 1968

NOTE: Information in regard to a material's composition will be treated as confidential and used for the purpose of protecting the health and safety of Boeing employees and the safeguarding of its property. It will also be used for the purpose of complying with local, state and federal ordinances, laws and codes and requirements of our prime contracts with the Government and subcontracts under Government contracts.

The completed form should be mailed to Industrial Hygiene, The Boeing Company, Seattle, Washington 98124. Disregard if previously accomplished.