

U. S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME MONSANTO COMPANY		EMERGENCY TELEPHONE NO. (314) 694-1000
ADDRESS (Number, Street, City, State, and ZIP Code) 800 North Lindbergh Boulevard, St. Louis, Missouri 63166		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS Skydrol [®] LD
CHEMICAL FAMILY Aircraft hydraulic fluid	FORMULA	

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
At ambient temperature not hazardous by definitions in 29					
CFR Section 1501.2 which pertains to this data sheet.					

SECTION III PHYSICAL DATA

BOILING POINT ^{at 1} 760mm (with decomp) 290°C	SPECIFIC GRAVITY (H ₂ O=1) 25/25°C	0.999
VAPOR PRESSURE (mm Hg.) 72°F	6 mm	PERCENT VOLATILE BY VOLUME (%) N.A.
VAPOR DENSITY (AIR=1) N.A.		EVAPORATION RATE (=1) N.A.
SOLUBILITY IN WATER Slight		
APPEARANCE AND ODOR Clear purple liquid - Mild pleasant odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) COC >330°F	FLAMMABLE LIMITS	LeI	Uel
EXTINGUISHING MEDIA Dry powder, CO₂, chemical foam, water fog.			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

DSW 267325

Monsanto

Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 894-1000

TOXICITY AND SAFE HANDLING STATEMENT

SKYDROL® LD

In toxicity screening studies the oral LD₅₀ in rats has been found to be approximately 1440 mg/kg. The lethal dose by skin absorption to rabbits was greater than 3100 mg/kg. These dosages allow the classification of the product as "moderately toxic" from the standpoint of accidental ingestion of a single dose. It is not readily absorbed through the skin and animals subjected to saturated vapors for a period of six hours showed no systemic toxicity but did show some evidence of lung irritation.

Animal skin irritation studies show that Skydrol LD causes irritation, producing a score of 3.3 on a scale of 8 when tested by an occlusive patch on rabbits for 24 hours. This is considerably more of an irritating effect than that produced by our other Skydrol fluids.

A 21-day subacute dermal toxicity study was conducted using male albino rabbits. There were no systemic findings but the material when tested this way proved severely irritating to the skin of the albino rabbit.

Human repeated insult patch tests have shown that the material is not a primary irritant or skin sensitizer under the usual criteria for such tests. It did, however, produce changes compatible with the criteria of a fatiguing agent. We have received reports of skin irritation at times from users who treated this compound in the same manner that they did our earlier Skydrol fluids. We have advised more meticulous attention to minimizing skin contact, the frequent use of a waterless skin cleaner, and, occasionally, protective ointment or gloves have been needed.

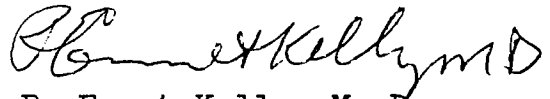
The score obtained in standard eye irritation potential studies was 6.0 out of a possible 110.0 in one hour (somewhat less than obtained with a 10% toilet soap solution). We know from experience with humans, however, that the burning sensation and pain when humans accidentally get the material in the eyes is out of proportion to the low irritation potential score obtained in animals. In the case of such accidental exposure, pain may continue for several hours and irritation may extend up to 48-72 hours. There is no danger of permanent effect to eye tissues, however.

DSW 267326

STLCOPCB4062739

The treatment for eye contact is immediate flushing with water and the application of one of the cortisone-type eye drops. Drops of anesthetic ophthalmic solution may also be placed in the eyes to relieve pain.

We have had no cases of systemic toxicity with Skydrol LD since its introduction. In addition to recommending good housekeeping and personal hygiene practices, we have advised against breathing mists of the material or breathing vapors evolved at elevated temperatures. Such respiratory contact can be avoided by proper mechanical exhaust ventilation.

A handwritten signature in cursive script, reading "R. Emmet Kelly, M.D.", written in dark ink.

R. Emmet Kelly, M. D.
Medical Director

5-23-73

DSW 267327

STLCOPCB4062740