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U.S. DEPARTMENT OF LABOR

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81091-259

MATERIAL SAFETY DATA SHEET

1- S.D. File
1- R.M. Cutchan

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 Mixture			TRADE NAME AND SYNONYMS Therminol FR-0		
CHEMICAL FAMILY Chlorinated Aromatic			FORMULA Mixture		
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 FLUX COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
SECTION III PHYSICAL DATA					
BOILING POINT (°F.)	760 mm	520-615	SPECIFIC GRAVITY (H ₂ O=1)	(25/15.5°C)	1.410
VAPOR PRESSURE (mm Hg.)	at 200°F	1.35	PERCENT VOLATILE BY VOLUME (%)		N.A.
VAPOR DENSITY (AIR=1)	Not Avail		EVAPORATION RATE (BuAc = 1)		<1
SOLUBILITY IN WATER	at 20°C negligible				
APPEARANCE AND ODOR	colorless oil		aromatic odor		
SECTION IV FIRE AND EXPLOSION HAZARD DATA					
FLASH POINT (Method used)	None	FLAMMABLE LIMITS		Lel	Uel
				N.A.	N.A.
EXTINGUISHING MEDIA	N.A.				
SPECIAL FIRE FIGHTING PROCEDURES Respiratory protection when fighting fires where exposure to vapors or gases is possible.					
UNUSUAL FIRE AND EXPLOSION HAZARDS Highly toxic gases (chlorides & chlorine) can be evolved in fires of this product.					

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THRESHOLD LIMIT VALUE	Not available.
EFFECTS OF OVEREXPOSURE Skin irritation in the form of chloracne, systematic intoxication leads to nausea, vomiting, loss of weight, edema and abdominal pain	
EMERGENCY AND FIRST AID PROCEDURES Remove from exposure. Remove contaminated clothing. Wash contacted area with large amounts of water and soap. Refer to physician.	

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS CO, CO ₂ , smoke, soot, chlorides and chlorine.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Absorb on clay, sawdust or other absorbant material. Place in drums. Bury in approved chemical landfill in accordance with local and state regulations.
WASTE DISPOSAL METHOD Burn in an approved incinerator in accordance with local and state regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Bureau of Mines approved respirator for organic vapors.		
VENTILATION	LOCAL EXHAUST Yes - for vapors	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES rubber	EYE PROTECTION chemical goggles	
OTHER PROTECTIVE EQUIPMENT		

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid skin and eye contact. Avoid inhalation of vapors
OTHER PRECAUTIONS

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While the information and recommendations set forth herein are believed to be accurate as of the date hereof, MONSANTO COMPANY MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.