

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

Form Approved
OMB NO. 44-R13

MATERIAL SAFETY DATA SHEET

PLAINTIFF'S EXHIBIT

BIR-832

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

SECTION I

MANUFACTURER'S NAME MALLINCKRODT, INC.		EMERGENCY TELEPHONE NO. (606) 987-7000
ADDRESS (Number, Street, City, State, and ZIP Code) P.O. Box M, Paris, Ky. 40361		
CHEMICAL NAME AND SYNONYMS Heptane		TRADE NAME AND SYNONYMS Dipropyl methane
CHEMICAL FAMILY Organic Compound	FORMULA CH₃(CH₂)₅CH₃	

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)

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	208°F	SPECIFIC GRAVITY (H ₂ O=1)	0.68
VAPOR PRESSURE (mm Hg.) at 22.3°F	40 mm.	PERCENT, VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	3.45	EVAPORATION RATE (Water =1)	1
SOLUBILITY IN WATER	insoluble		
APPEARANCE AND ODOR Colorless liquid			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	25°F	FLAMMABLE LIMITS	Lel 1.2	Uel 6.7
EXTINGUISHING MEDIA Alcohol foam, carbon dioxide, dry chemical				
SPECIAL FIRE FIGHTING PROCEDURES Do not use water. Heptane is lighter than water and will float, may spread the fire.				
UNUSUAL FIRE AND EXPLOSION HAZARDS Vapors are heavier than air. They may travel a long distance to point of ignition and flash back.				

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
500 ppm

EFFECTS OF OVEREXPOSURE

~~Remove from atmosphere. Use artificial respiration if person is unconscious.~~
Get medical attention.

EMERGENCY AND FIRST AID PROCEDURES

~~Use artificial respiration if person is unconscious. Get medical attention.~~

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

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 paper towel. Let evaporate in a hood in an iron pan. Allow fumes to clear the hood vents and burn the paper.~~

WASTE DISPOSAL METHOD

~~Mix with lower flammable organic solvent and spray into the ignition chamber of an incinerator with afterburner.~~

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Gas mask with organic vapor cannister.

VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES

EYE PROTECTION

~~Rubber~~
OTHER PROTECTIVE EQUIPMENT
~~Lab coat~~

Splash proof goggles.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

~~Outside storage is preferred. Inside storage should be in a standard room for flammable solvent.~~

OTHER PRECAUTIONS