

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health
Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY (As used on Label and List)	NOTE: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
CHEMICAL FORMULA	

SECTION I — MANUFACTURE INFORMATION

MANUFACTURE'S NAME	TELEPHONE NUMBER
	EMERGENCY TELEPHONE NUMBER
ADDRESS (Number, street, City, State, ZIP Code)	
SIGNATURE OF PREPARER (<i>optional</i>)	DATE PREPARED (<i>required</i>)

SECTION II — HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (Specific chemical identity; common name(s))	% of mixture (<i>optional</i>)	OSHA Permissible exposure limit (PEL)	ACGIH Threshold Limit Value (TLV)	Other limits recommended

THIS MATERIAL IS FOR RESEARCH AND DEVELOPMENT PURPOSES ONLY

SECTION III — PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT		SPECIFIC GRAVITY (H ₂ O = 1)	
VAPOR PRESSURE (mmHg)		MELTING POINT	
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (BUTYL ACETATE = 1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR			

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT <i>(method used)</i>		FLAMMABLE LIMITS (% by volume)	LOWER EXPLOSION LIMIT	UPPER EXPLOSION LIMIT
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

SECTION V — REACTIVITY DATA

STABILITY <i>(check one)</i>	STABLE		CONDITIONS TO AVOID	
	UNSTABLE			
INCOMPATIBILITY <i>(materials to avoid)</i>				
HAZARDOUS DECOMPOSITION OR BYPRODUCTS				
HAZARDOUS POLYMERIZATION CONCERN? <i>(check one)</i>	YES		CONDITIONS TO AVOID	
	NO			

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SECTION VI — HEALTH HAZARD DATA

ROUTE(S) OF ENTRY <i>(check all that apply)</i>	INHALATION		SKIN		INGESTION	
CARCINOGENICITY	National Toxicology Program		IARC MONOGRAPH <i>(if applicable)</i>		OSHA REGULATED	
HEALTH HAZARDS <i>(Acute and Chronic)</i>						
SIGNS AND SYMPTOMS OF EXPOSURE						
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE						
EMERGENCY AND FIRST AID PROCEDURES						

SECTION VII — PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE OF MATERIAL RELEASE OR SPILL
WASTE DISPOSAL METHOD
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
OTHER PRECAUTIONS

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SECTION VIII — CONTROL MEASURES

ENGINEERING CONTROLS	LOCAL EXHAUST	SPECIAL
	MECHANICAL (<i>general</i>)	OTHER
PROTECTIVE GLOVES <i>(specify type)</i>		
EYE PROTECTION		
RESPIRATOR PROTECTION <i>(specify type)</i>		
OTHER PROTECTIVE CLOTHING OR EQUIPMENT		
WORK/HYGIENIC PRACTICES		