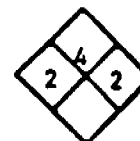




SHELL CHEMICAL COMPANY
SHELL DEVELOPMENT COMPANY
SHELL PIPE LINE CORPORATION



MATERIAL SAFETY DATA SHEET

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use or dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I	
MANUFACTURER'S NAME Shell Chemical Company	EMERGENCY TELEPHONE NO. (713) 473-9461
ADDRESS (Number, Street, City, State, and ZIP Code) P.O. Box 2463, Houston, Texas 77001	
CHEMICAL NAME AND SYNONYMS Vinyl Chloride, Chloroethylene, Chloroethane	TRADE NAME Vinyl Chloride Monomer (VCM)
CHEMICAL FAMILY Vinyl Halide	FORMULA

SECTION II HAZARDOUS INGREDIENTS*						
COMPOSITION	%	SPECIES	LD ₅₀		LC ₅₀	
			ORAL	DERMAL	CONCENTRATION	HOURS
Vinyl Chloride	100					
Vinyl chloride has anaesthetic properties at high concentrations (80,000-120,000 ppm). Cardiac arrhythmias have been found in dogs at these levels. Liver changes have been reported in rabbits at 200 ppm, but not in rats, guinea pigs or dogs. Studies on exposed workers over a 17 year period at a mean air concentration of 160 ppm failed to reveal any overt condition attributable to VCM. One Italian report in 1970 indicated tumor development in rats at 30,000 ppm.						

SECTION III PHYSICAL DATA			
BOILING POINT (°F)	7	SPECIFIC GRAVITY (H ₂ O=1) 20° C.	0.91
VAPOR PRESSURE (mmHg) @ 68° F.	2580	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	2.15	EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	Slight		
APPEARANCE AND ODOR	Colorless, sweet smelling gas		

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	-108° F., T.O.C.	FLAMMABLE LIMITS	
		at ordinary temperature	
EXTINGUISHING MEDIA	CO ₂ , dry chemicals	Lel	Uel
		3.6	33.0
SPECIAL FIRE FIGHTING PROCEDURES	Do not use water except as a spray or fog.		
	Wear self contained breathing apparatus.		
UNUSUAL FIRE AND EXPLOSION HAZARDS	Handle as an extremely flammable liquid and gas. Material is under pressure.		

THRESHOLD LIMIT VALUE	OSHA - 500 ppm (ceiling); ACGIH - 200 ppm (TWA); Shell - 50 ppm (TWA)
EFFECTS OF OVEREXPOSURE	See over. Also prolonged contact with skin results in freezing.
EMERGENCY AND FIRST AID PROCEDURES	
Remove victim to area free of vinyl chloride vapors. Give artificial respiration if necessary. Remove contaminated clothing to prevent freezing. Remove from eyes with large amounts of water.	

SECTION VI REACTIVITY DATA			
STABILITY	UNSTABLE	X	CONDITIONS TO AVOID Avoid sunlight and/or heat and exclude all oxygen
	STABLE		
INCOMPATIBILITY (Materials to avoid)		air, oxygen	
HAZARDOUS DECOMPOSITION PRODUCTS		H Cl, CO and phosgene on combustion	
HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID air, sunlight and/or heat
	WILL NOT OCCUR		

SECTION VII SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Remove all sources of ignition. Remove all personnel not wearing protection equipment shown in Sect. VIII. Use forced ventilation from explosion-proof equipment. Allow to evaporate.
WASTE DISPOSAL METHOD	Do not permit material to enter sewers. Use controlled evaporation. Guard against fire and explosion hazards.

SECTION VIII SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) Air pack or organic canister mask as required.		
VENTILATION	LOCAL EXHAUST	highly recommended
	MECHANICAL (General)	Highly recommended - use explosion-proof equipment
PROTECTIVE GLOVES	Rubber	EYE PROTECTION Chemical goggles and/or face shields
OTHER PROTECTIVE EQUIPMENT To prevent all contact with body as required.		

SECTION IX SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Prevent any leakage. Provide sufficient ventilation to prevent high concentrations. Keep away from all sources of ignition. Handle as an extremely flammable material which is stored under pressure.

D. M. Sheets, Supervisor
 Regulatory Affairs - Chemical Products
 Shell Chemical Company
D. M. Sheets
 Date July 1973

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ASI 000021279

MSDS-645-3