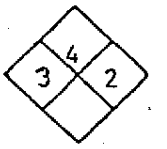
FORM NO LSB-005-4-MAY 1969

SHELL OIL COMPANY
SHELL CHEMICAL COMPANY
SHELL DEVELOPMENT COMPANY
SHELL PIPE LINE CORPORATION

RATING



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	EMERGENCY TELEPHONE NO.
Shell Chemical Company	(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, Chloroethene	TRADE NAME: Vinyl Chloride Monomer (VCM)
CHEMICAL FAMILY: Vinyl Halide	FORMULA

SECTION II HAZARDOUS INGREDIENTS

COMPOSITION	%
Vinyl Chloride	100

Extended exposure of rats to known concentrations of VCM vapor ranging from 30,000-250 ppm has resulted in cancers of a variety of organs, including a rare cancer of the liver. No cancers or other effects have been reported in animal exposed to 50 ppm. After years of exposure to unreported concentrations of VCM and other chemicals associated with PVC production, some workers have developed degeneration of the ends of the finger bones. A larger than normal percentage have shown some degree of liver abnormality. A few have developed the same rare form of liver cancer found in the rat studies. Where the human exposure levels are known (160 ppm average over 17 years), no clinical illness or overt condition attributable to VCM was found. Some blood test values appeared to be altered, however. Detailed reports of the toxicological studies are available for examination in the Plant Safety Office. In view of the above, VCM must be accorded the precautions appropriate for a cancer-suspect agent.

SECTION III PHYSICAL DATA

BOILING POINT (°F)	7	SPECIFIC GRAVITY (H_2O=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. Odor threshold about 250 ppm, but olfactory fatigue occurs, so odor cannot be relied upon to provide warning of hazardous levels.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
-108° F., T.O.C.	at ordinary temperature	3.6	33.0

EXTINGUISHING MEDIA CO_2, dry chemicals

SPECIAL FIRE FIGHTING PROCEDURES Do not use water except as a spray or fog. Wear self contained breathing apparatus.

SCC 1-1120

UNUSUAL FIRE AND EXPLOSION HAZARDS Handle as an extremely flammable liquid and gas. Material is under pressure.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: OSHA - 50 ppm (ceiling) Reference 29 CFR §1910.93 q

EFFECTS OF OVEREXPOSURE: See Section II Also, exposure to very high concentrations may cause asphyxiation, persistent irregular heartbeat, unconsciousness, nausea, or dizziness. Liquid on body or clothing may cause freezing or lead to above symptoms via overexposure from inhalation or systemic absorption.

EMERGENCY AND FIRST AID PROCEDURES: Remove victim to area free of vinyl chloride vapors. Give artificial respiration if necessary. Remove contaminated clothing Remove from eyes with large amounts of water. Notify supervisor immediately of spills or leaks.

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: FLAMMABLE. 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 slowly.

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 supplied air respirator as required.

VENTILATION	LOCAL EXHAUST: Highly recommended (Use explosion proof equipment)	
	MECHANICAL (General)	OTHER

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.

AVOID BREATHING VAPOR

SCC 1-1121

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

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