3. CHEMICAL AND PHYSICAL INFORMATION

3.1 CHEMICAL IDENTITY

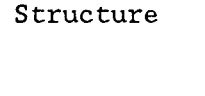
Data pertaining to the chemical identity of 1,2-dichloropropane are listed in Table 3-l.

3.2 PHYSICAL AND CHEMICAL PROPERTIES

The physical and chemical properties of 1,2-dichloropropane are presented in Table 3-2.

3. CHEMICAL AND PHYSICAL INFORMATION

TABLE 3-1. Chemical Identity of 1,2-Dichloropropane

	Value	References
Chemical name	1,2-Dichloropropane	CAS 1988
Synonyms	Propylene dichloride; propylene chloride; 2,3-dichloropropane; 1,2-D	CAS 1988, SANSS 1988; Cohen 1986
Trade name(s)[a]	D-D Mixture; Nemex; Vidden D; D-D; Dow-421; Terr-o-gas; Dowfume NC; Vorlex; EP-201; D-D Pilfume; Terr-o-cide; New Fieldfume; Dorlone	Bennett 1981, 1982, 1983; OHM-TADS 1988; Ali et al. 1986; HSDB 1988; EPA 1979
Chemical formula	$C_3H_6Cl_2$	CAS 1988
Chemical Structure		SANSS 1988
Identification Numbers:		
CAS Registry	78-87-5	CAS 1988
NIOSH RTECS	TX9625000	RTECS 1988
EPA Hazardous Waste	U083	EPA 1982
OHM-TADS	7216876	OHM-TADS 1988
DOT/UN/NA/IMCO Shipping	Propylene dichloride; UN 1279; IMCO 3.2	OHM-TADS 1988
HSDB	1102	HSDB 1988
NCI	C55141	HSDB 1988

[a]Includes names of those products which contain 1,2-dichloropropane in a mixture of compounds.
CAS = Chemical Abstracts Service
NIOSH = National Institute for Occupational Safety and Health
RTECS = Registry of Toxic Effects of Chemical Substances
OHM-TADS = Oil and Hazardous Materials/Technical Assistance Data System
DOT/UN/NA/IMCO = Department of Transportation/ United Nations/ North/America/International Maritime Dangerous Goods Code
HSDB = Hazardous Substances Data Bank by the National Library of Medicine
NCI = National Cancer Institute

TABLE 3-2. Physical and Chemical Properties of 1,2-Dichloropropane

Property	Value	Reference
Molecular weight	112.99	Riddick et al. 1986
Color	Colorless	Hawley 1981
Physical state	Liquid	Riddick et al. 1986
Freezing point	-100.44°C	Riddick et al. 1986
Boiling point	96.37°C	Riddick et al. 1986
Density, 20°C	1.15597	Riddick et al. 1986
Odor	Chloroform-like	Hawley 1981
Odor threshold		
Water	0.010 ppm (w/v)	Amoore and Hautala 1983
Air	0.25 ppm (v/v)	Amoore and Hautala 1983
Solubility		
Water	2,700 mg/L (20°C)	Horvath 1982
Organic solvents	Miscible with most common solvents	Hawley 1981
Partition coefficients		
Log octanol/water	1.99 (estimated)	EPA 1988b
Log K_{oc}	1.67[a]	Chiou et al. 1979
Vapor pressure	49.67 mm Hg (25°C)	Riddick et al. 1986
Henry's Law constant	2.07×10^{-3} atm-m^3/mol (24°C)	Mackay and Yeun 1983
	1.67×10^{-3} atm-m^3/mol (24°C)	Chiou et al. 1980
Autoignition temperature	557°C	Parrish 1983
Flash point, closed cup	16°C	Parrish 1983

TABLE 3-2 (continued)

Property	Value	Reference
Flammability limits	3.4 to 14.5 vol %	Parrish 1983
Conversion factors mg/m^3 to ppm (v/v) in air (20°C)	1 mg/m^3 = 0.21 ppm (v/v)	

[a]Using $K_{oc} = 1.724\ K_{om}$