3. CHEMICAL AND PHYSICAL INFORMATION

3.1 CHEMICAL IDENTITY

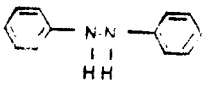
Data pertaining to the chemical identity of 1,2-diphenylhydrazine listed in Table 3-1.

3.2 PHYSICAL AND CHEMICAL PROPERTIES

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

3. CHEMICAL AND PHYSICAL INFORMATION

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

	Value	Reference
Chemical name	1,2-Diphenylhydrazine	CAS 1988
Synonyms	Hydrazobenzene N,N'-diphenylhydrazine sym-diphenylhydrazine	CAS 1988; SANSS 1988
Trade names	No data	
Chemical formula	$C_{12}H_{12}N_2$	CAS 1988
Chemical structure		SANSS 1988
Identification numbers:		
CAS Registry	122-66-7	CAS 1988
NIOSH RTECS	MW2625000	HSDB 1988
EPA Hazardous Waste	U109	HSDB 1988
OHM-TADS	8100209	HSDB 1988
DOT/UN/NA/IMCO Shipping	No data	
HSDB	2882	HSDB 1988
NCI	C01854	HSDB 1988

CAS = Chemical Abstracts Services; DOT/UN/NA/IMCO = Department of Transportation/United Nations/North America/International Maritime Dangerous Goods Code; EPA = Environmental Protection Agency; HSDB = Hazardous Substance Data Bank; NCI = National Cancer Institute; 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.

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

Property	Value	Reference
Molecular weight	184.24	
Color	White	Ahuja et al. 1988
Physical state	Crystalline solid	Dean 1985
Melting point	123-126°C	Aldrich Catalog 1988
Boiling point	309°C	PCGEMS Estimation
Specific gravity, 16/4°C	1.158	Dean 1985
Odor	No data	
Odor threshold	No data	
Solubility:		
Water at 20°C	66.9 mg/L (calculated using equation 40)	Neely and Blau 1985
Organic solvents	Very soluble in alcohol; slightly soluble in benzene	Dean 1985
Partition coefficients:		
Log octanol/water	2.94 (experimental)	Hansch and Leo 1985
Log K_{oc}	2.73 (calculated using equation 4-10)	Lyman et al. 1982
Vapor pressure at 25°C	2.6×10^{-5} mmHg	Mabey et al. 1981
Henry's law constant	9.42×10^{-8} atm-m^3/mol (calculated from water solubility and vapor pressure)	
Autoignition temperature	No data	
Flashpoint, open cup	No data	
Flammability limits	No data	
Conversion factors	No data	