Figure 13

PHYSICAL CONSTANTS DATA

164596

SUBSTANCE	STRUCTURAL FORMULA
MONOCHLOROBENZENE	Syst. 464 V. 199

COMPILED BY	DATE
F.C. Meyer & F.C. Ernest - M.H. Berry Revised	4/3/57 Rev. 12/3/65

NAME		SOURCE & DATE
Formula	C_6H_5Cl	I.C.T. 1, 197
Molecular Weight	Colorless liquid	"
Appearance	112.50	"
Boiling Point at 760 mm	132.1°C.	"
Boiling Point at 30 mm	44.8°C.	
Boiling Point at mm		
Boiling Point at mm		
Crystallizing Point	-47°C.	
Melting Point	-45.2°C.	"
Solution Point		
Specific Gravity @ 20°/4°C.	1.107	"
Specific Gravity @ 0°/4°C. -1.12795	at 15/4°C. -1.11172	L.B. Eq. I, 198 (1927)
Pounds per Gal. @ 15.5°C	9.3	
Coefficient of Expansion		
Refractive Index @ 15° n_D	1.521	Beil. V., 198
Infra Red Spectrum *(Reference)*		
Ultra Violet Spectrum *(Reference)*		
Viscosity @ 20.1°C.	803 N. X 10^5	J. Timmerman's Physico Che
Viscosity @		Constants
Surface Tension 20°C.	33.28 dynes/cm.	"
Solubility in Water 20°/100	0.049	Perry Chem. Eng. Hb. 3rd e
Solubility in		P. 134
Solubility in Benzene	Soluble	C. & P. Hb. Ed. 29, 1945
Alcohol	Infinite	"
Ether	Infinite	"
Chloroform	Soluble	"
CS_2	Soluble	"
Flash Point °F *(Method)* (Closed cup)	90°	Lange
Fire Point °C		
Heat of Combustion	11,766 BTU/lb.	Beil. V., 109
Heat of Formation	+2.58 Kcal/gmol Mole	
Thermal Stability (cal./kg/min.)	368°C. N.D. Ernest	O.R. Spiral Sl. 1, 70
Latent Heat of Fusion		
Latent Heat of Vap. 130.6°C.	77.59 cal/gr. (140 BTU/lb.)	Perry, Hb. 3rd. ed. p. 21
*Specific Heat 26.84°C.	0.3191 c.p.	Timmerman's Physico Chem.
Critical Temperature	359.2°C.	Constants p. 283 "
Critical Pressure	33926 mm.	"
Dissociation Constant		
Other Constants: Dielectric Constant 21°C.	5.670	"
*Specific Heat 31°C.	0.279 cal/°C Gram.	OR-43516 - H. Luebke
* " " 72°C.	0.309 " "	OR-43517 - "
* " " 109°C.	0.334 " "	OR-43518 - "
Thermal Conductivity @ 100°C.	27.4 X 10^{-5}, Cal/°C cm. sec.	OR-26814 - "
Viscocity @ 50°C	0.60 CPS	OR-26815 - "
Microwave Spectrum, Quadruploar		
Coupling Constants, & Dipole		J. of Chem. Physics
Moment of Chlorobenzene		Vol. 39, No. 8 - 10/15/63
		pg. 1962
Toxicity *(Give Reference)* "Industrial Poisons, Hazards, Solvents" by M.B. Jacob - Vol. 1, 461		

TRADE SECRETS

NOTE: *These data should not be released outside of Monsanto Chemical Company. Use additional sheets if necessary.*