Table XI

PART 1. Physical and Thermodynamic Properties of Ammonia

Molecular Weight of NH_3	17.031
Critical Temperature	270.3 F
Critical Pressure	1,636 psi
Critical Density	14.67 lb/ft^3
Melting Temperature of NH_3 Solid at 1 atm.	-107.9 F
Heat of Fusion of NH_3 Liquid at 1 atm.,-107.9 F	142.8 BTU/lb
Boiling Temperature of NH_3 Liquid at 1 atm.	-28.17 F
Heat of Vaporization of NH_3 Liquid at 1 atm.,-28.17 F	589.8 BTU/lb
Density of Saturated NH_3 Vapor at 1 atm.,-28.17 F	0.0555 lb/ft^3
Density of Saturated NH_3 Liquid at 1 atm.,-28.17 F	42.57 lb/ft^3
Heat of Formation of NH_3 Vapor at 1 atm., 77 F	-1,167 BTU/lb
Heat of Formation of NH_3 Liquid at 1 atm., 77 F	-1,760 BTU/lb
Free Energy of Formation of NH_3 Vapor at 1 atm., 77 F	-420.6 BTU/lb
Heat of Combustion of NH_3 Vapor at 1 atm., 77 F	10,022 BTU/lb
Thermal Conductivity of NH_3 Vapor, k at 1 atm., 32 F	0.0128 $BTU*ft/(h*ft^2*F)$
at 1 atm., 212 F	0.0185 $BTU*ft/(h*ft^2*F)$
Thermal Conductivity of NH_3 Liquid at 50 F	0.29 $BTU*ft/(h*ft^2*F)$
Prandtl Number, $\left[\frac{CP\mu}{k}\right]$, for NH_3 Vapor at 1 atm., 212 F	0.78
Diffusion Coefficient of NH_3 Vapor, D in air at 1 atm., 77 F	0.246 X 10 - ^{3} ft^2/sec
Schmidt Number, $\left[\frac{CP\mu}{k}\right]$, for NH_3 Vapor in air at 1 atm., 212^o F	0.67
Dielectric Constant of NH_3 Vapor at 1 atm., 32^o F, and 10^6 cycles/sec	1.0072
of NH_3 Liquid at 1 atm., -11^o F, and 4 x 10^8 cycles/sec.	22
of NH3 Solid at 1 atm., -130o F, and 4 x 108 cycles/sec.	4.01
Electrical Conductivity of NH_3 Liquid at -110 F	33 $X10^8$ mho/in
Heat capacity of NH_3 Vapor at 1 atm, 59 F	0.5232 BTU/lb*F

PART 2. Viscosity of Saturated Ammonia Liquid and Ammonia Vapor at Various Temperatures

Temperature	Viscosity of NH_3 Liquid, μ	Viscosity of NH_3 Vapor, μ
-28.3 F	0.266 Centipoise	0.00810 Centipoise
-4 F	0.210 Centipoise	0.00860 Centipoise
14 F	0.190 Centipoise	0.00900 Centipoise
32 F	0.170 Centipoise	0.00926 Centipoise
50 F	0.150 Centipoise	0.00960 Centipoise
68 F	0.125 Centipoise	0.00990 Centipoise