

## Chapter SPS 343

## APPENDIX

The material contained in this appendix is for clarification and general information only.

## Physical Properties of Ammonia

Molecular symbol	NH <sub>3</sub>
Molecular weight	17.031
Boiling point at one atmosphere*	-28° F
Melting point one atmosphere*	-107.9° F
Critical temperature	271.4° F
Critical pressure	1657 psia
Latent heat at -28° F and one atmosphere*	589.3 Btu/lb
Relative density of vapor compared to dry air at 32° F and one atmosphere*	0.5970
Vapor density at -28° F and one atmosphere*	0.05555 lb/ft <sup>3</sup>
Specific gravity of liquid at -28° F compared to water at 39.2° F	0.6819
Weight per gallon of liquid at -28° F	5.69 lbs/gallon
Liquid density at -28° F and one atmosphere	42.57 lbs/ft <sup>3</sup>
Specific volume of vapor at 32° F and one atmosphere	20.78 ft <sup>3</sup> /lb
Flammable limits by volume in air at atmospheric pressure	16% to 25%
Ignition Temperature (in a standard quartz container)	1562° F
Specific Heat, Gas, at 59° F and one atmosphere*	
at constant pressure, C <sub>p</sub>	0.5232 Btu/lb° F
at constant volume, C <sub>v</sub>	0.3995 Btu/lb° F

\*One atmosphere = 14.7 psia