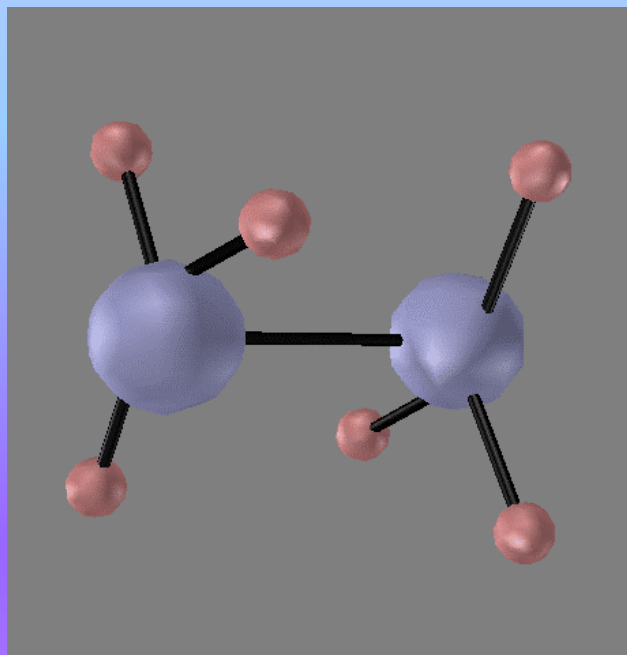


Chemical Properties of Ethane



Ethane (C₂H₆)

DESCRIPTION (Ethane):

Ethane is a colorless, odorless, flammable gas. It is shipped in steel cylinders as a liquefied gas under its own vapor pressure of approximately 540 psig @ 70°F. Typical uses of Ethane are as a fuel for motors and as a refrigerant for extremely low temperature systems.

PHYSICAL CONSTANTS (Ethane):

Molecular Weight:	30.07	Latent Heat of Fusion @ t.p.:	22.7 cal/g
Vapor Pressure of pure liquid @ 70° F.:	543 psig	Flammable Limits in Air:	3.0-12.5% by volume
Specific Volume @ 60° F., 1 atm.:	12.8 cu.ft/lb	Autoignition Temperature:	950°F
Boiling Point @ 1 atm. :	-126.8°F	Gross Heat of Combustion @ 60° F., 1 atm.	1783.7 BTU/ft³
Triple Point	-297.8°F	Specific Heat, Gas @ 60° F., 1 atm. C _p :	0.4097 BTU/lb.°F
Specific Gravity, Gas @ 60° F., 1 atm. (Air = 1):	1.047	Specific Heat, Gas @ 60° F., 1 atm. C _v :	0.3436 BTU/lb.°F
Density, Liquid @ 60° F,	0.3768 g/ml	Specific Heat Ratio, Gas @ 25° C., 1 atm., C _p /C _v :	1.192
Saturation Pressure:		Thermal Conductivity, Gas @ 0° C. :	0.0106 BTU/(hr)(ft²)(°F/ft)
Critical Temperature:	90.1°F	Viscosity, Gas @ 68°F., 1 atm. :	0.0091 centipoise
Critical Pressure:	708 psia	Entropy, Gas @ 25°C., 1 atm. :	48.004 cal/mol °C
Critical Density:	0.203 g/ml	Solubility in Water @ 20° C., 1 atm. :	4.7ml/100ml water
Latent Heat of Vaporization @ b.p.:	116.55 cal/g		

Technical Information supplied by:

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