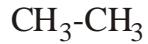


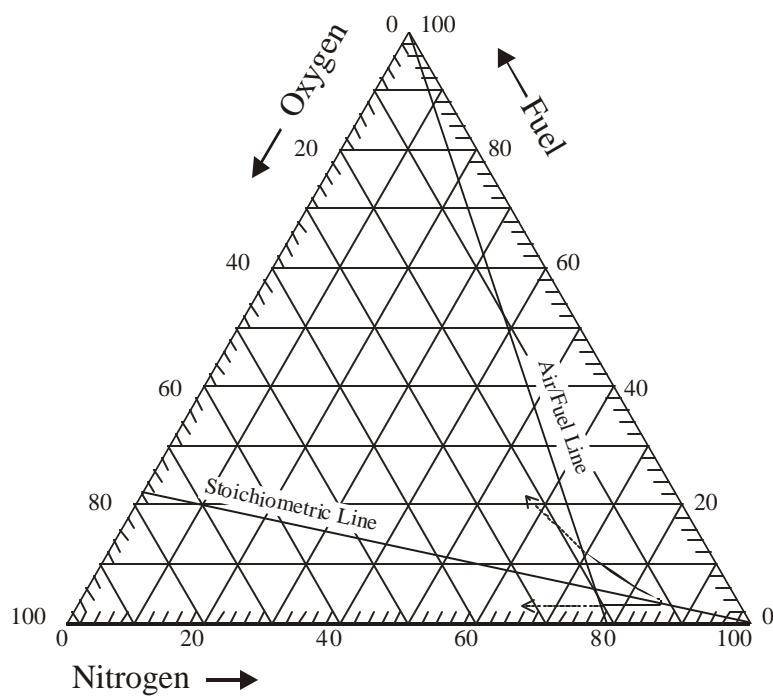
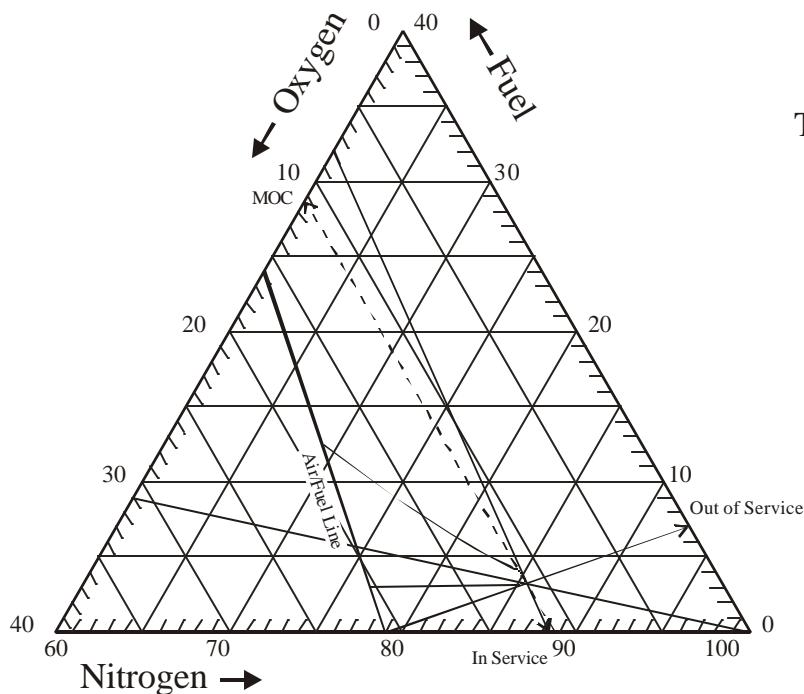
Ethane



25°C and Atmospheric Pressure



Triangular Plot Data From Reference 2



Molecular weight: 30.07

Boiling point:¹ -88.65°C

LFL:² 3.0%

UFL:² 12.5%

MOC: 11.2% O₂

Flash point:³ -135 °C

Vapor Pressure

$$\text{Equation: } \ln P = A - \frac{B}{T(\text{K}) + C}$$

P (mmHg)

130 to 199K

A = 15.6637

B = 1511.42

C = -17.16

Concentration of vapor in air at 1 atm.: **%

From Figure:

In service 88.3% N₂

Concentrations: 11.7% O₂

Out of service 7% Fuel

Concentrations: 93% N₂

¹Lide, D. R., Editor in chief, *Handbook of Chemistry and Physics*, 71st ed., CRC Press, Inc., Boston, 1991

²Zabetakis, M. G., *Flammability Characteristics of Combustible Gases and Vapors*, U.S. Dept. of the Interior, Bureau of Mines, No. 627, 1965

³Stephenson, R. M., *Flash Points of Organic and Organometallic Compounds*, Elsevier Science Publishing Co., Inc., New York, 1987

⁴Reid, R. C., Prausnitz, J. M., and Sherwood, T. R., *The Properties of Gases and Liquids*, 3rded. McGraw Hill, New York, 1977