Propane

$CH_3\text{-}CH_2\text{-}CH_3$

25°C and Atmospheric Pressure

$$C_3H_8 + 5O_2 \longrightarrow 3CO_2 + 4H_2O$$

Triangular Plot Data From Reference 2
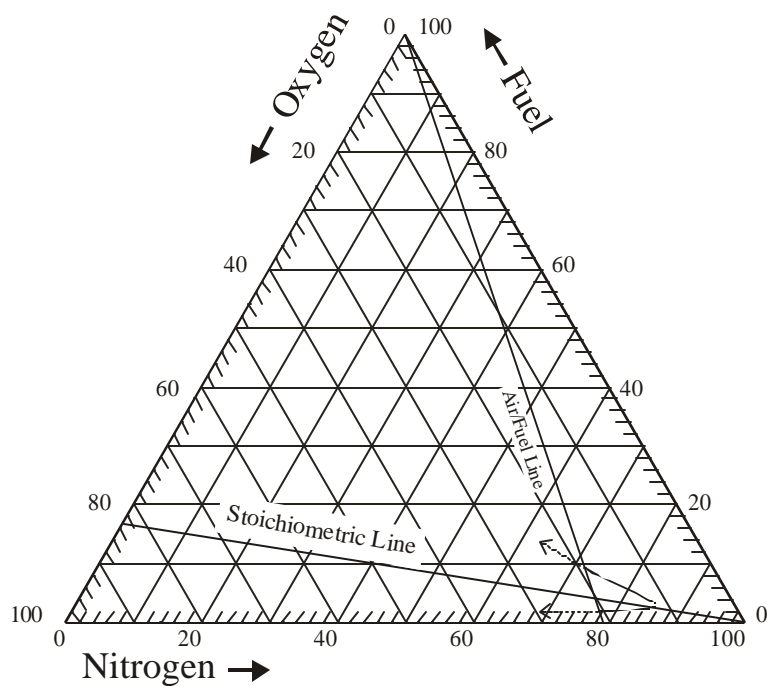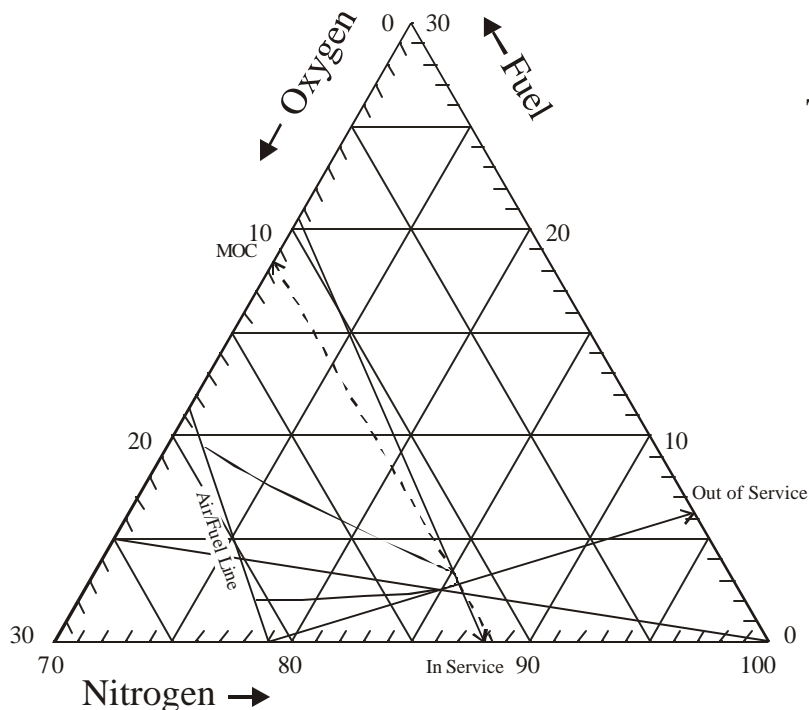
Molecular weight:	44.1
Boiling point:[1]	-42.1°C
LFL:[2]	2.1%
UFL:[2]	9.5%
MOC:	11.6% O_2
Flash point:[3]	-104.44°C

Vapor Pressure Equation:[4]

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

P (mmHg)
169 to 249K
A = 15.7260
B = 1872.46
C = -25.16

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

From Figure:	
In service Concentrations:	88% N_2 12% O_2
Out of service Concentrations:	6.2% Fuel 93.8% N_2

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

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

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

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