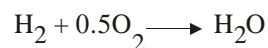


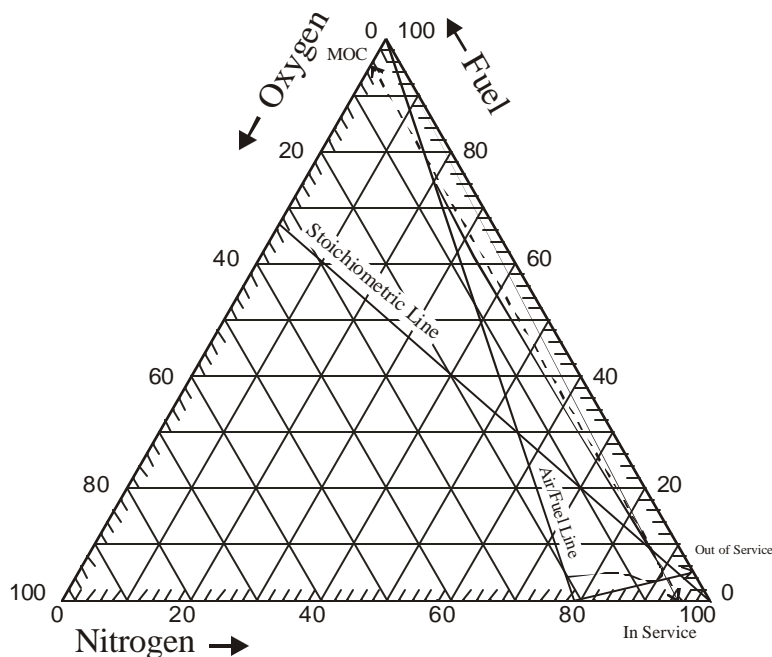
# Hydrogen



25°C and Atmospheric Pressure



Triangular Plot Data From Reference 2



Molecular weight:	2.016
Boiling point: <sup>1</sup>	-252.75°C
LFL: <sup>2</sup>	4.2%
UFL: <sup>2</sup>	74%
MOC:	4% O <sub>2</sub>
Flash point: <sup>3</sup>	

Vapor Pressure	
Equation: <sup>4</sup>	$\ln P = A - \frac{B}{T(K) + C}$
	P (mmHg)
	14 to 25K
	A = 13.6333
	B = 164.90
	C = 3.19

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

From Figure:	
In service	94.3% N <sub>2</sub>
Concentrations:	5.7% O <sub>2</sub>
Out of service	5% Fuel
Concentrations:	95% N <sub>2</sub>

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

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

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

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