

PROPYLENE has proven its productivity nationwide for more than 30 years in metalworking applications that include flame cutting, heating, (preheating and stress relieving), brazing, soldering, flame hardening and HVOF metalizing. The high flame temperature and the heat of combustion produced by PROPYLENE and oxygen produces cutting speeds 30% - 60% greater than Natural Gas. Heating applications often produce an even greater advantage...especially over acetylene.

PROPYLENE cylinders are safe, economical and easy to handle. They come in 435, 105, 63, 27, and 6 lb sizes. PROPYLENE is available in economical bulk stations with capacities 1,000 to 12,000 gallon horizontal and 1,900 and 3,900 gallon vertical tanks to reduce costs and eliminate problems with low pressure natural gas and generated or trailered acetylene.

PROPYLENE Productivity: The predictable performance of PROPYLENE is a matter of chemical truth. PROPYLENE has a double bond in its molecule which decomposed and produces a higher flame temperature than that of Propane which has only a single bond in its molecule. No blended fuel is hotter than PROPYLENE.



Properties

Fuel Gas Chemical and Physical Comparison Chart

SAFETY DATA

	PROPYLENE	Acetylene	Propane	Natural Gas
Shock sensitive	stable	unstable	stable	stable
Backfire tendency	Low	High	Low	Low
Explosive limits in Oxygen (%)	2.3-55	3.0-93	2.4-57	5.0-59
Explosive limits in Air (%)	2.0-11	2.5-80	2.3-9.5	5.3-15
Burning velocity in Oxygen ft/sec	15	22.7	12.2	13.6

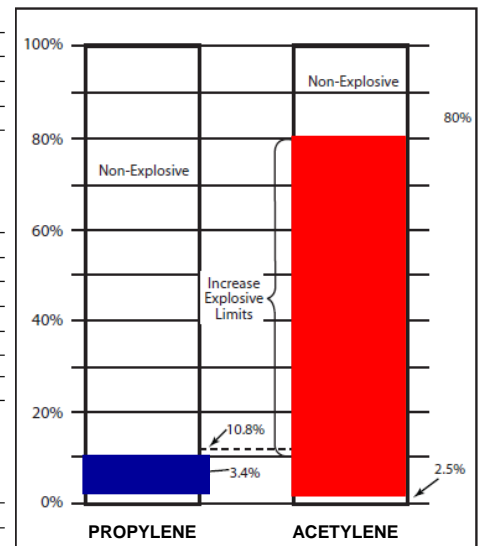
PHYSICAL PROPERTIES

Specific gravity of liquid	0.522	NA	0.507	NA
LBS. / Gal. Liquid	4.35	NA	4.28	NA
CF / LB of GAS	9.1	14.6	8.66	23.6
Specific gravity of gas	1.449	0.906	1.52	0.62
Vapor pressure at 70 deg.F psig.	135	NA	120	NA
Boiling range	-54	-8.4	-50	-161
Bulk capabilities	yes	no	yes	yes
Cylinder capabilities	yes	yes	yes	no

PROPERTIES WHILE IN USE

Flame temperature in Oxygen (F)	5312	5589	4500	4460
Total BTU emission per cf	2372	1436	2498	989
Oxygen to Fuel ratio (through torch)	3 to 1	1.5 to 1	4 to 1	1.9 to 1
Oxygen used to burn 1lb fuel	27cfh	22cfh	35cfh	45cfh
Oxygen - Fuel ratio	4.5 to 1	2.5 to 1	5 to 1	2 to 1
Maximum usable pressure	Cylinder psig	15 psig	Cylinder psig	2 to 5 psig

Explosive limits of PROPYLENE in Air

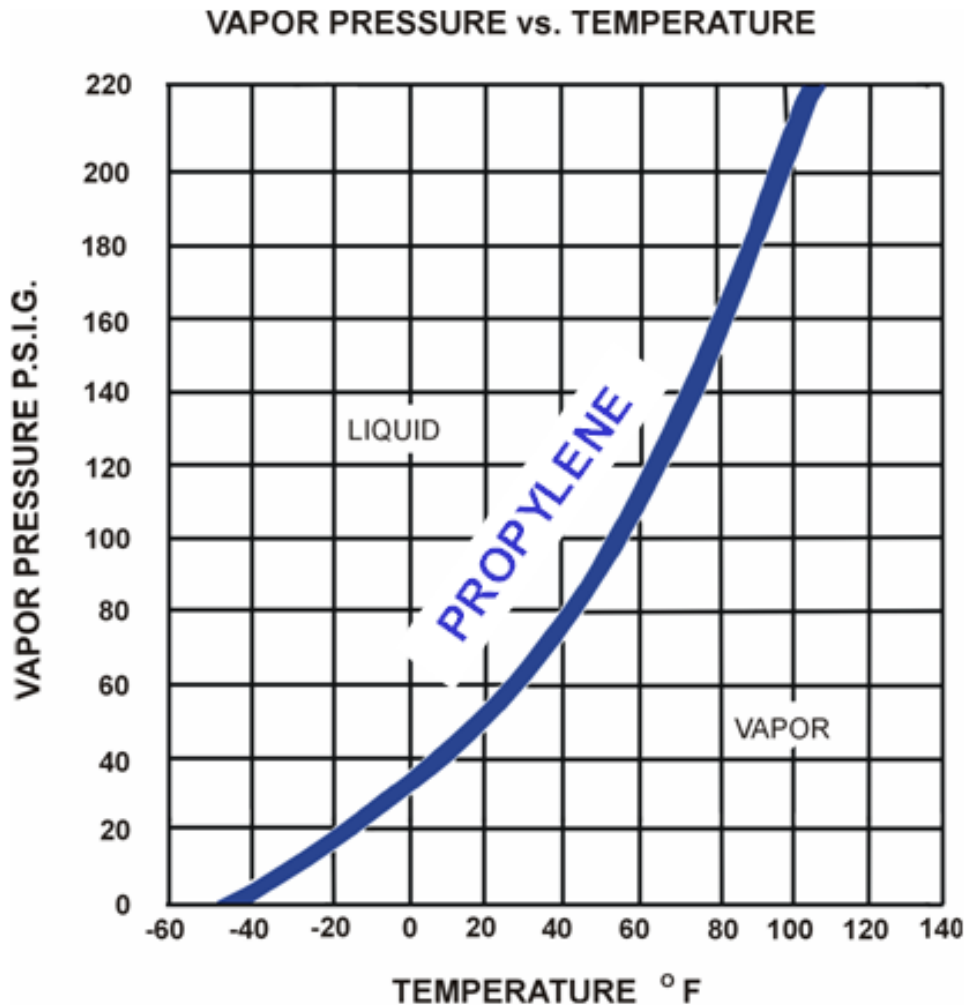


DATA: CRC Handbook of Chemistry 82 Edition CGAING: Fourth Edition

18005 E. Hwy 225 La Porte, Texas 77571 Tel: 281-471-2200

www.gasinnovations.com

PROPYLENE has the highest vapor pressure of all available fuel gases, an important factor for cold weather applications. This superior pressure delivery often allows the user to eliminate vaporization equipment on storage tanks. This also prevents the reliquification of gas in the piping and hoses which often occurs with propane and blended fuels.



Cubic Feet Per Hour with Cylinder 60% Full

Cylinder Size	TEMPERATURE Degrees F				
	-5	10+	20+	40+	60+
27 lbs	8	16	21	32	42
63 lbs	15	29	39	58	78
105 lbs	20	40	53	80	106
435 lbs	44	89	119	178	238

40% FULL - Multiply 0.8
20% FULL - Multiply 0.6

PROPYLENE The safe high energy fuel for cutting, heating, brazing & welding.