

LPG Gas

PROPYLENE
THE PRODUCTIVITY FUEL GAS....

LIQUEFIED PETROLEUM GAS

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 and 27 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 that Propane which has only a single bond in its molecule. No blended fuel is hotter than Propylene.



Heating Values of Fuel Gases

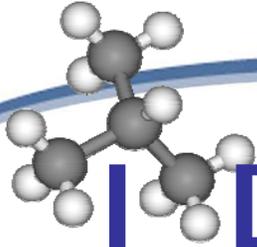
	Propylene	Propane	Acetylene	Natural Gas
Neutral Flame Temp.	5342	4700	5700	4500
Heat Emission BTU/cu.ft. Primary Flame	433	255	507	11
Secondary Flame	1938	2243	963	989
Total BTU/cu.ft.	2371	2498	1470	1000
Total Heat Value BTU/lb.	21,600	21,600	21,500	23,600

Properties of Industrial Fuels

	Propylene	Propane	Acetylene	Natural Gas
SAFETY DATA				
Shock Sensitivity	Stable	Stable	Unstable	Stable
Explosive Limits in Oxygen (%)	2.3-55	2.4-57	3.0-93	5.0-59
Explosive Limits in Air (%)	2.0-11	2.3-9.5	2.5-80	5.3-14
Max. Allowable Pressure	Cylinder	Cylinder	15 PSIG	Line
Burning Velocity in Oxygen ft/sec.	15	12.2	22.7	13.6
Backfire Tendency	Low	Low	High	Low
Toxicity	Low	Low	Low	Low

Physical Properties

Specific Gravity of liquid	0.522	0.507	X	X
Lbs. / Gal. Liquid	4.35	4.98	X	X
Cu. Ft. / Lb. Gas	9.1	8.66	14.6	23.6
Specific Gravity of Gas	1.49	1.52	0.906	0.62
Vapour Pressure @ 70 F PSIG	135	120	X	X
Boiling Range	-54	-50	-8.4	-161

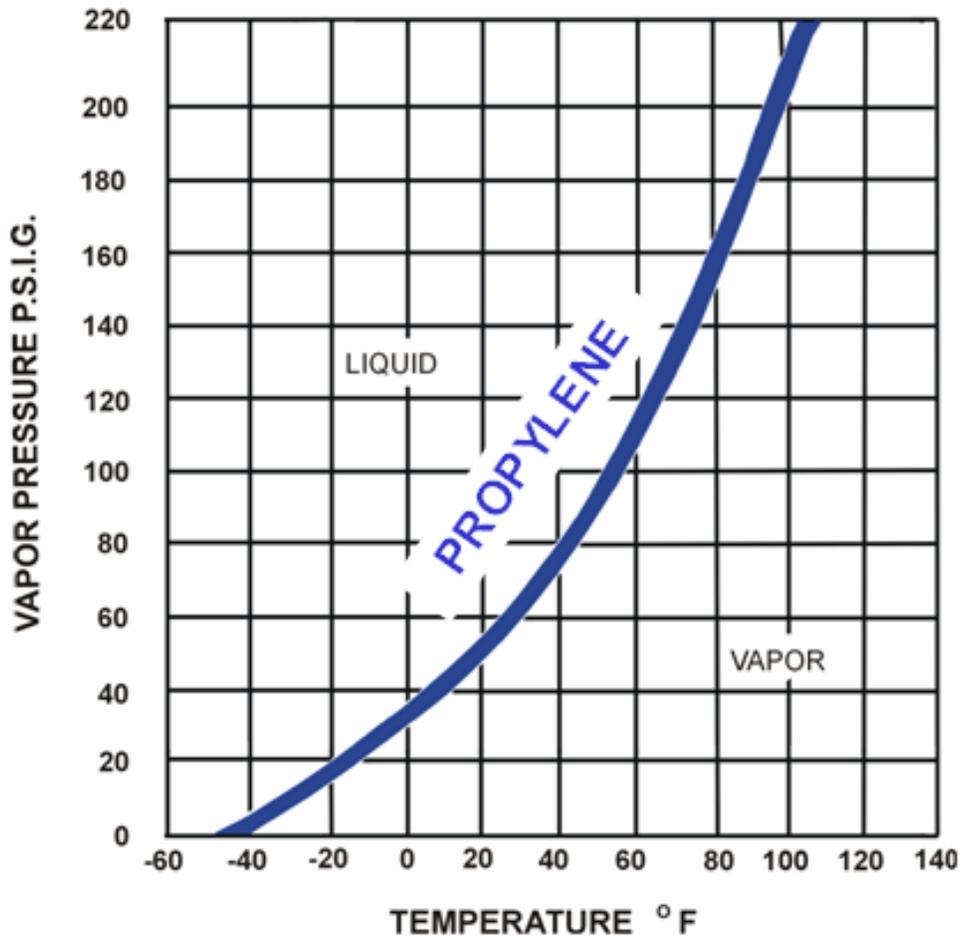


LPGas

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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.

VAPOR PRESSURE vs. TEMPERATURE



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