



	Butane	Isobutane	Propane	Iso Pentane	n- Pentane	DME	152a	134a
Formula	C4H10	C4H10	C3H8	C5H12	C5H12	CH3-O-CH3	CH3-CHF2	CF3-CFH2
Molecular Weight	58.123	58.123	44.096	72.15	72.15	46.069	66.051	102.03
Vapor pressure @ 70 °F (psig)	16.9	31.1	109.3	-3.1	-6.2	61.3	63.9	71
Vapor Pressure @ 100 °F (psig)	37.5	59	172	5.8	0.8	106	111.1	124.2
Boiling Point @ 1 ATM., °F	31.1	10.9	-43.7	82	97	-12.7	-13	-15.5
Freezing Point @ 1 ATM., °F	-217	-255.3	-305.7	-255.8	-201.5	-223	-179	-149.8
Autolgnition Temperature °F	761	1010	842	-	588	662	849	-

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Specific Gravity Liquid @ 60 °F	0.584	0.563	0.508	0.624	0.63	0.671	0.922	1.245
Specific Gravity Gas @ 60 °F	2.006	2.006	1.522	2.491	2.491	1.59	2.28	3.523
Density of Liquid lbs./gal. @ 60 °F	4.864	4.699	4.234	5.2	5.255	5.579	7.696	10.384
Vol. of Vapor/lb. @ 60 °F (cu. ft.)	6.54	6.53	8.62	5.27	5.27	8.24	5.74	3.72
Vol. of Vapor/gal. @ 60 °F (cu. ft.)	31.75	30.59	36.35	27.4	27.68	46.12	44.2	38.64
Gas Vol/Liq Vol @ 1 ATM & 60 °F	237.8	229.3	272.7	205	207	345	330.6	289
Critical Temperature °F	305.6	274.5	206.1	369.1	385.8	260.3	236.2	213.9
Critical Pressure (psia)	550.6	527.9	616	490.4	488.8	778.9	652.5	587.4
Flash Point °F	-101	-117	-156	-60	-40	-42	-58	-
Spc Heat of Gas, Cp @ 60 °F, BTU/lb °F	0.395	0.387	0.389	0.384	0.388	0.412	0.24	0.282
Spc Heat of Liquid, Cp @ 60°F, BTU/lb °F	0.57	0.57	0.62	0.538	0.544	0.566	0.378	0.331

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Net Heat of Combustion of Liquid at 77 °F (BTU/lb)	19,657	19,589	19,918	19,304	19,495	12,397	4,937	0
Chemical Heat of Combustion (kJ/g)	43.3	42.8	44	41.9	42.5	26.5	6.3	0
Viscosity of Liq., centipoise @ 100 °F	0.14	0.131	0.084	0.191	0.196	0.115	0.141	0.166
Coefficient of Liquid Expansion @ 60 °F	0.0011	0.0012	0.0016	0.0009	0.0009	0.0012	0.0014	0.0016
Solubility in water @ 70 °F (% by wgt)	0.008	0.008	0.007	Neg.	Neg.	35	1.7	0.95
Solubility of water @ 70 °F (% by wgt)	0.007	0.008	0.016	0.01	0.009	6.9	0.17	0.095
Surface Tension @ 77 ° F (dynes/cm)	11.9	9.8	7	14.5	15.5	11.4	10	7.8
Kauri-Butanol Value	20	18	15	N/A	N/A	60	11	9.2
Flammability Limits in Air	1.9 - 8.5	1.8 - 8.4	2.2 - 9.5	1.4 - 7.6	1.5 - 7.8	3.3 - 18.0	3.9 - 16.9	-