



www.nphheaters.com

PROPERTIES of LIQUIDS

LIQUID	DENSITY LBS. / FT. ³	LBS. / GAL.	AVERAGE SPECIFIC HEAT BTU / LB. / °F	BOILING POINT °F	HEAT of VAPORIZATION BTU / LB.
ACETIC ACID 20%	64.1	8.57	.91	214 ±	810 ±
ACETIC ACID	66.0	8.81	.472	242	153
ALCOHOL (ETHYL)	49.6	6.63	.60	173	367
BENZINE	56	7.49	.45	175	166
BRINE (25% NaCl)	74	9.89	.81	221 ±	728 ±
CAUSTIC SODA (18% NaOH)	74.9	10.0	.84	221 ±	795 ±
DOWTHERM A	66.1	8.83	.44	496	42.2
ETHER	46	6.15	.503	95	160
FREON 12	82.7 @ 70 psig.	11.0	.23	—21.6	62
GLUE (2/3 WATER)	69	9.21	.895	-----	-----
GLYCERINE	78.7	10.5	.58	556	-----
MERCURY	845	112.9	.0333	675	117
NaK (78% K)	46.2 @ 1000 °F	6.17	.21 @ 1000 °F	1446	-----
NITRIC ACID, 7%	64.7	8.64	.92	220 ±	918 ±
OIL, COTTONSEED	60	8.01	.47	-----	-----
OIL, MACHINE	58	7.75	.40	-----	-----
OIL, OLIVE	58	7.75	.471	570 ±	-----
PARAFFIN (Melted)	47.1 ±	6.29	.71 ±	750 ±	-----
PETROLEUM	58.2	7.78	.43	-----	-----
POTASSIUM (K)	44.6 @ 1000 °F	5.96	.18 @ 1000 °F	1400	893
SODIUM (Na)	51.2 @ 1000 °F	6.84	.30 @ 1000 °F	1621	1810
SULFUR (Melted)	112	15.0	.22	832	652
THERMONOL FR-2	90.6	12.1	.30	648 ±	-----
TURPENTINE	54.3	7.25	.41	318	123
VEGETABLE OIL	57.5	7.68	.43 ±	-----	-----
WATER	62.3	8.34	1.0	212	970

* At or near room temperature

** Percent concentration by weight in H₂O solution

± Approximate

PROPERTIES of GASES

GAS	*DENSITY LBS. / FT. ³	*SPECIFIC HEAT BTU / LB. / °F
ACETYLENE	.073	.350
AIR at 70 °F	.080	.237
AIR at 400 °F	.046	.245
ALCOHOL	-----	.453
AMMONIA	.523	.044
ARGON	.102	.125
CARBON DIOXIDE	.113	.199
CARBON MONOXIDE	.072	.248
CHLORINE	.184	.115
ETHYLENE	.0728	.400
HELIUM	.0104	1.25
HYDROCHLORIC ACID	.094	.194
HYDROGEN	.0052	3.39
METHANE	.041	.528
METHYL CHLORIDE	.1309	.24
NITRIC OXIDE	.0779	.231
NITROGEN	.072	.248
OXYGEN	.082	.218
SULFUR DIOXIDE	.172	.152
WATER VAPOR at 212 °F (Steam)	.037	.482

* At or near room temperature and atmospheric pressure