

Gases

T°C	P	T°C	P	T°C	P	T°C	P	T°C	P	T°C	P
-10	2.1	11	9.8	32	35.7	53	107.2	74	277.2	95	633.9
-9	2.3	12	10.5	33	37.7	54	112.5	75	289.1	96	657.6
-8	2.5	13	11.2	34	39.9	55	118.0	76	301.4	97	682.1
-7	2.7	14	12.0	35	42.2	56	123.8	77	314.1	98	707.3
-6	2.9	15	12.8	36	44.6	57	129.8	78	327.3	99	733.2
-5	3.2	16	13.6	37	47.1	58	136.1	79	341.0	100	760.0
-4	3.4	17	14.5	38	49.7	59	142.6	80	355.1		
-3	3.7	18	15.5	39	52.4	60	149.4	81	369.7	102	815.9
-2	4.0	19	16.5	40	55.3	61	156.4	82	384.9		
-1	4.3	20	17.5	41	58.3	62	163.8	83	400.6	104	875.1
0	4.6	21	18.7	42	61.5	63	171.4	84	416.8		
1	4.9	22	19.8	43	64.8	64	179.3	85	433.6	106	937.9
2	5.3	23	21.1	44	68.3	65	187.5	86	450.9		
3	5.7	24	22.4	45	71.9	66	196.1	87	468.7	108	1004
4	6.1	25	23.8	46	75.7	67	205.0	88	487.1		
5	6.5	26	25.2	47	79.6	68	214.2	89	506.1	110	1075
6	7.0	27	26.7	48	83.7	69	223.7	90	525.8		
7	7.5	28	28.3	49	88.0	70	233.7	91	546.1	112	1149
8	8.0	29	30.0	50	92.5	71	243.9	92	567.0		
9	8.6	30	31.8	51	97.2	72	254.6	93	588.6	114	1227
10	9.2	31	33.7	52	102.1	73	265.7	94	610.9		

$$1 \text{ atm} = 760 \text{ (torr)} \text{ mmHg} = 101.3 \text{ kPa} = 14.7 \text{ psi}$$

$$K = ^\circ C + 273$$

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$PV = nRT$$

$$d = \frac{P m_w}{RT}$$

$$R = .0821 \frac{\text{L atm}}{\text{mol} \cdot \text{K}}$$

$$\frac{r_1}{r_2} = \sqrt{\frac{m_{w_2}}{m_{w_1}}}$$

$$\frac{d_1}{d_2} = \sqrt{\frac{m_{w_2}}{m_{w_1}}}$$

$$\frac{t_1}{t_2} = \sqrt{\frac{m_{w_1}}{m_{w_2}}}$$