

NITROUS OXIDE

Nitrous oxide is a chemical compound with the formula N_2O . It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste.

Table 1. Thermodynamic Properties of Saturated Nitrous Oxide¹

Temp ° F	Pressure p.s.i.a.	Density Liquid lb/cu/ ft	Specific Volume Vapor cu ft/lb	Enthalpy		Latent Heat BTU/ lb	Temp ° F
				Liquid BTU/ lb	Vapor BTU/ lb		
-127	14.7	80.0	5.5	-98.5	63.8	162.3	-127
-120	19.0	79.0	4.25	-96.6	64.5	161.1	-120
-110	26.0	77.5	3.18	-93.8	65.7	159.5	-110
-100	35.0	76.0	2.38	-90.7	66.7	156.4	-100
-90	46.0	75.0	1.82	-87.2	68.0	155.2	-90
-80	58.0	74.0	1.43	-83.7	68.9	152.6	-80
-70	74.0	72.5	1.15	-79.8	70.0	149.8	-70
-60	91.0	70.5	0.935	-75.8	70.7	146.5	-60
-50	112.0	69.3	0.752	-71.8	71.5	143.3	-50
-40	137.0	68.0	0.606	-67.5	72.2	139.7	-40
-30	167.0	67.0	0.513	-63.2	72.7	135.9	-30
-20	203.0	65.5	0.425	-58.7	73.2	131.9	-20
-10	240.0	64.7	0.364	-54.2	73.5	127.7	-10
0	283.0	63.1	0.303	-49.4	73.6	123.0	0
10	335.0	61.2	0.262	-44.8	73.7	118.5	10
20	387.0	59.2	0.217	-39.8	73.6	113.4	20
32	460.0	57.0	0.1785	-33.3	73.5	106.8	32
40	520.0	54.7	0.160	-28.2	73.3	101.5	40
50	590.0	52.3	0.138	-21.2	72.6	93.7	50
60	675.0	49.2	0.119	-14.2	72.0	86.2	60
70	760.0	46.5	0.106	-7.0	70.7	77.7	70
80	865.0	40.0	0.08	0.0	69.0	69.0	80
97	1069.0	26.5	0.0377	66.5	66.5	0	97