



Suva®

refrigerants

Physical Property Data for Suva® HP80, Suva® HP81, Suva® 408A, Suva® HP62, Suva® 507, and Freon® 502

Property	Suva® HP80	Suva® HP81	Suva® 408A	Suva® HP62	Suva® 507	Freon® 502
Refrigerant Number	R-402A	R-402B	R-408A	R-404A	R-507	R-502
Replaces	R-502	R-502	R-502	R-502, R-22	R-502, R-22	N/A
Chemical Formula/ Composition	R22/R125/R290 38/60/2 wt%	R22/R125/R290 60/38/2 wt%	R22/R125/R143a 47/7/46 wt%	R125/R143a/R134a 44/52/4 wt%	R125/R143a 50/50 wt%	R22/R115 48.8/51.2 wt%
CAS Number	R22:75-45-6 R125:354-33-6 R290:74-98-6	R22:75-45-6 R125:354-33-6 R290:74-98-6	R22:75-45-6 R125:354-33-6 R143a:420-46-2	R125:354-33-6 R143a:420-46-2 R134a:811-97-2	R125:354-33-6 R143a:420-46-2	R22:75-45-6 R115:76-15-3
Molecular Weight	101.55	94.71	87	97.6	98.9	111.64
Boiling Point at 1 atm, °F (°C)	-56.5 (-49.2)	-53.2 (-47.4)	-46.3 (-43.5)	-51.6 (-46.5)	-52.1 (-46.7)	-49.8 (-45.4)
Liquid Density at 77°F (25°C), lb/ft ³ (kg/m ³)	71.86 (1151)	72.14 (1156)	66.17 (1060)	65.45 (1048)	65.36 (1047)	75.95 (1217)
Vapor Pressure of Satd. Liquid at 77°F (25°C), psia (kPa)	194 (1337)	181.9 (1254)	168.4 (1161)	182 (1255)	187 (1287)	168.6 (1162)
Heat Capacity of Liquid at 77°F (25°C), Btu/lb °F (kJ/kgK)	0.328 (1.37)	0.32 (1.34)	N/A	0.367 (1.54)	N/A	0.293 (1.23)
Heat Capacity of Vapor at 1 atm at 77°F (25°C), Btu/lb °F (kJ/kgK)	0.181 (0.758)	0.173 (0.724)	N/A	0.207 (0.867)	N/A	0.164 (0.687)
Thermal Conductivity of Liquid at 77°F (25°C), Btu/hr.ft °F (W/mK)	0.04 (0.0691)	0.0425 (0.0735)	N/A	0.0394 (0.0683)	N/A	0.0373 (0.0642)
Thermal Conductivity of Vapor at 1 atm (101.3 kPa), Btu/hr.ft°F (W/mK)	0.00732 (0.01266)	0.00696 (0.01205)	N/A	0.00778 (0.01346)	N/A	0.0067 (0.0115)
Critical Temperature, °F (°C)	167.9 (75.5)	180.7 (82.6)	182.3 (83.5)	161.7 (72.1)	159.6 (70.9)	179.9 (82.2)
Critical Pressure, psia (kPa)	599.7 (4135)	644.8 (4445)	629.5 (4340)	541.2 (3732)	550 (3794)	591 (4075)
AEL/TLV, 8- or 12-hr TWA, ppm	1,000	1,000	1,000	1,000	1,000	1,000
ODP, CFC-12=1	0.02	0.03	0.026	0	0	0.307
GWP, CO2=1	2,250	1,964	2,649	3,260	3,300	5,494
ASHRAE Safety Classification	A1/A1	A1/A1	A1/A1	A1/A1	A1/A1	A1/A1
Refrigerant Cylinder Color, PMS Code	461	385	248	021	326	251
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