

## **Technical Information**

**I**  
DuPont Fluorochemicals

T-MP66- SI

Thermodynamic  
Properties  
of  
**SUVA<sup>®</sup>MP66**  
**Refrigerant**  
(R-401B)

## Thermodynamic Properties of Suva® MP66 Refrigerant SI units

New tables of the thermodynamic properties of **Suva®** MP66 refrigerant [ASHRAE designation: R-401 B], a near azeotropic blend of HCFC-22/HFC-152a/HCFC-124 ( 61/11/28 mass%) have been developed and are presented here. These tables are based on extensive experimental measurements. Equations have been developed, based on the Peng-Robinson-Stryjek-Vera (PRSV) equation of state, which represent the data with accuracy and consistency throughout the entire range of temperature, pressure and density presented in these tables.

### Physical Properties

Chemical Formula  $\text{CHClF}_2/\text{CH}_3\text{CHF}_2/\text{CHClFCF}_3$   
(61/11/28% by weight)

Molecular Weight	92.84	
Boiling Point at		
One Atmosphere	-34.67°C	(-30.41°F)
Critical Temperature $T_c$	106.10°C	(222.98°F)
	379.25 K	(682.65°R)
Critical Pressure, $P_c$	4681.5kPa (abs) (679.0 psia)	
Critical Density, $D_c$	512.7 kg/m <sup>3</sup>	(32.01 lb/ft <sup>3</sup> )
Critical Volume, $V_c$	0.00195 m <sup>3</sup> /kg (0.0312 ft <sup>3</sup> /lb)	

### Units and Factors

t	= temperature in °C
T	= temperature in K = °C + 273.15
Pf	= pressure of saturated liquid (bubble point in kPa (abs))
Pg	= pressure of saturated vapor (dew point) in kPa (abs)
v <sub>f</sub>	= volume of saturated liquid in m <sup>3</sup> /kg
v <sub>g</sub>	= volume of saturated liquid in m <sup>3</sup> /kg
V	= volume of superheated vapor in m <sup>3</sup> /kg
d <sub>f</sub>	= 1/v <sub>f</sub> = density of saturated liquid in kg/m <sup>3</sup>
d <sub>g</sub>	= 1/v <sub>g</sub> = density of saturated vapor in kg/m <sup>3</sup>
h <sub>f</sub>	= enthalpy of saturated liquid in kJ/kg
h <sub>fg</sub>	= enthalpy of vaporization in kJ/kg
h <sub>g</sub>	= enthalpy of saturated vapor in kJ/kg
H	= enthalpy of superheated vapor in kJ/kg
s <sub>f</sub>	= entropy of saturated liquid in kJ/(kg) (K)
s <sub>g</sub>	= entropy of saturated vapor in kJ/(kg) (K)
S	= entropy of superheated vapor in kJ/(kg) (K)
C <sub>p</sub>	= heat capacity at constant pressure in kJ/(kg) (K)
C <sub>v</sub>	= heat capacity at constant volume in kJ/(kg) (K)

The gas constant,	R = 8.314 J(mole) (K)
For <b>Suva®</b> MP66,	R = 0.0896 kJ/(kg) (K)
One atmosphere	= 101.325 kPa

Reference point for enthalpy and entropy:

$$h_f = 200 \text{ kJ/kg at } 0^\circ\text{C}$$

$$s_f = 1 \text{ kJ/kg}\cdot\text{K at } 0^\circ\text{C}$$

### Equations

The Pen-Robinson-Stryjek-Vera (PRSV) equation of state was used to calculate the tables of thermodynamic properties. It was chosen as the preferred equation of state because it provided an accurate fit of the thermodynamic data over the entire range of temperatures and pressures presented in these tables.

The constants for the PRSV equation of state were calculated in SI units. For conversion of thermodynamic properties to Engineering (I/P) units, conversion factors are provided for each property derived from the PRSV equation of state.

### 1. Equation of State (PRSV)

$$P = RT/(V-b) - a/(V^2 + 2bV - b^2)$$

Where P is in kPa, T is in K, V is in m<sup>3</sup>/mole, and R = 8.314 J/(mole) (K).

The constants a and b are calculated as follows:

$$a = \sum_{i=1}^3 \sum_{j=1}^3 x_i x_j a_{ij} \quad b = \sum_{i=1}^3 x_i b_i$$

where

$$a_{ij} = (a_i a_j)^{0.5} (1 - k_{ij})$$

$$b_i = 0.077796 RT_{ci}/P_{ci}$$

$x_i$  = mole fraction of component i

$x_j$  = mole fraction of component j

$$a_i = (0.457235 R^2 T_{ci}^2 / P_{ci}) \alpha_i$$

$$a_j = (0.457235 R^2 T_{cj}^2 / P_{cj}) \alpha_j$$

$k_{ij}$  = binary interaction parameter for components i and j

$$\alpha_i = [1 + \ddot{e}_i (1 - T_r^{0.5})]^2$$

$$\ddot{e}_i = \ddot{e}_{0i} + \ddot{e}_{1i} [(1 + T_{ri}^{0.5}) (0.7 - T_{ri})]$$

(Note:  $\ddot{e}_i = \ddot{e}_{0i}$  for  $T_r > 0.7$ )

$$\ddot{e}_{0i} = 0.378893 + 1.4897153 \div i - 0.17131848 \div i^2 + 0.0196554 \div i^3$$

$\ddot{e}_{1i}$  = adjustable parameter for component i

$$T_{ri} = T_i / T_{ci} \text{ for component } i$$

Values for  $R$ ,  $T_{ci}$ ,  $P_{ci}$ ,  $\phi_i$ ,  $\dot{e}_{li}$ ,  $x_j$  and  $K_{ij}$  are needed to calculate constants  $a$  and  $b$ .  $R = 8.314 \text{ J}/(\text{mole})(\text{K})$ . The remaining constants for **Suva**<sup>®</sup> MP66 are summarized below:

Component	$T_{ci}$	$P_{ci}$	$\omega_i$	$K_{li}$	$X_i$
HCFC-22 (i=1)	369.16	4977.00	0.2214	0.0360	0.65492
HFC-152a (i=2)	386.44	4519.8	0.2752	-0.0400	0.15461
HCFC-124 (i=3)	395.39	3616.0	0.2859	0.0490	0.19047

The binary interaction parameters,  $k_{ij}$ , for **Suva**<sup>®</sup> MP66 are:

$K_{11} = 0.00000$	$K_{12} = -0.02652$	$K_{13} = 0.00052$
$K_{21} = -0.02652$	$K_{22} = 0.0000$	$K_{23} = -0.01314$
$K_{31} = 0.00052$	$K_{32} = -0.01314$	$K_{33} = 0.0000$

### Ideal Gas Heat Capacity Equation (at constant pressure):

$$C_p^0(\text{mixture}) = \sum_{i=1}^3 x_i C_{pi}^0$$

$$C_{pi}^0 = 4.184 (A_i + B_i T + C_i T^2 + D_i T^3 + E_i T^4 + F_i T^5)$$

Where  $C_p^0$  and  $C_{pi}^0$  are in  $\text{J}/(\text{mole})(\text{K})$  and  $T$  is in  $\text{K}$ .

$x_i$  is the mole fraction of component  $i$  in the mixture (use same values listed in PRSV constants for **Suva**<sup>®</sup> MP66).

$A_i, B_i, C_i, D_i, E_i,$  and  $F_i$  are constants

$A_1 = 6.164370 \text{ E}+00$	$B_1 = 0.173404 \text{ E}-01$
$A_2 = 2.072000 \text{ E}+00$	$B_2 = 0.572200 \text{ E}-01$
$A_3 = -4.130590 \text{ E}+01$	$B_3 = 0.587312 \text{ E}+00$
$C_1 = 0.557618 \text{ E}-04$	$D_1 = -0.140596 \text{ E}-06$
$C_2 = -0.348000 \text{ E}-04$	$D_2 = 0.810700 \text{ E}-08$
$C_3 = -0.233021 \text{ E}-02$	$D_3 = 0.517788 \text{ E}-05$
$E_1 = 0.120557 \text{ E}-09$	$F_1 = -03.68814 \text{ E}-13$
$E_2 = 0.000000 \text{ E}+00$	$F_2 = 0.000000 \text{ E}+00$
$E_3 = -0.599647 \text{ E}-08$	$F_3 = 0.287937 \text{ E}-11$

Properties calculated in SI units from the equations and constants listed above can be converted to I/P units using the conversion factors shown below.

Please note that in converting enthalpy and entropy from SI to I/P units, a change in reference states must be included (from  $H = 200$  and  $S = 1$  at  $0^\circ\text{C}$  for SI units to  $H = 0$  and  $S = 0$  at  $-40^\circ\text{F}$  for I/P units). In the conversion equations below,  $H(\text{ref})$  and  $S(\text{ref})$  are the saturated liquid enthalpy and entropy at  $-40^\circ\text{C}$ . For **Suva**<sup>®</sup> MP66:  $H(\text{ref}) = 153.8 \text{ kJ}/\text{kg}$  and  $S(\text{ref}) = 0.8184 \text{ kJ}/\text{kg} \cdot \text{K}$ .

### Conversion Factors (SI units to I/P units):

$P(\text{psia})$	$= P(\text{kPa}) \cdot 0.14504$
$T(^{\circ}\text{F})$	$= (T[^{\circ}\text{C}] \cdot 1.8) + 32$
$D(\text{lb}/\text{ft}^3)$	$= D(\text{kg}/\text{m}^3) \cdot 0.062428$
$V(\text{ft}^3/\text{lb})$	$= V(\text{m}^3/\text{kg}) \cdot 16.018$
$H(\text{Btu}/\text{lb})$	$= [H(\text{kJ}/\text{kg}) - H(\text{ref})] \cdot 0.43021$
$S(\text{Btu}/\text{lb} \cdot ^{\circ}\text{R})$	$= [S(\text{kJ}/\text{kg} \cdot \text{K}) - S(\text{ref})] \cdot 0.23901$
$C_p(\text{Btu}/\text{lb} \cdot ^{\circ}\text{F})$	$= C_p(\text{kJ}/\text{kg} \cdot \text{K}) \cdot 0.23901$
$C_v(\text{Btu}/\text{lb} \cdot ^{\circ}\text{F})$	$= C_v(\text{kJ}/\text{kg} \cdot \text{K}) \cdot 0.23901$

### 2. Vapor Pressure

$$\log_{10} P = A + B/T + C \log_{10} T + D T^2$$

#### For SI units

$T$  is in  $\text{K}$  and  $P$  is in  $\text{kPa}(\text{abs})$

$A, B, C$  and  $D$  are constants

Constants for vapor pressure of saturated liquid (bubble point),  $p_r$ :

$A = 5.69933\text{E}+01$	$C = -6.72303\text{E}+00$
$B = -3.86429\text{E}+03$	$D = 1.10442\text{E}-05$

Constants for vapor pressure of saturated vapor (due point),  $p_g$ :

$A = 7.52389\text{E}+01$	$C = -9.59126\text{E}+00$
$B = -4.60476\text{E}+03$	$D = 1.60025\text{E}-05$

#### For I/P units

$T$  is in  $^{\circ}\text{R}$  and  $P$  is in  $\text{psia}$

$A, B, C$  and  $D$  are constants

Constants for vapor pressure of saturated liquid (bubble point),  $p_r$ :

$A = 5.90179\text{E}+01$	$C = -6.72303\text{E}+00$
$B = -6.95959\text{E}+03$	$D = 034049\text{E}-05$

Constants for vapor pressure of saturated vapor (due point),  $p_g$ :

$A = 7.89510\text{E}+01$	$C = -9.59126\text{E}+01$
$B = -8.29317\text{E}+03$	$C = 0.49336\text{E}-05$

### 3. Density of the Saturated Liquid

$$d_f/D_c = a_0 + a_1 z + a_2 z^2 + a_3 z^3 + a_4 z^4$$

where  $z = (1 - T/T_c)^{1/3} - t_0$

Because both density and temperature appear in the reduced form in the equation, the same constants can be used for either SI or I/P units.

$d_f$  and  $D_c$  are in  $\text{kg}/\text{m}^3$  in SI units and  $\text{lb}/\text{ft}^3$  in I/P units;  $T$  and  $T_c$  are in K in SI units and  $^\circ\text{R}$  in I/P units;  $a_0, a_1, a_2, a_3, a_4,$  and  $t_0$  are constants:

$a_0 = 2.289321$	$a_3 = -1.206543$
$a_1 = 2.819138$	$a_4 = -4.025078$
$a_2 = 1.781901$	$t_0 = 0.5850235$

**TABLE 1**

**SUVA®MP66 (R-401B) Saturation Properties - Temperature Table**

Temp °C	Pressure [kPa]		Volume [m <sup>3</sup> /kg]		Density [kg/m <sup>3</sup> ]		Enthalpy [kJ/kg]			Entropy [kJ/K-kg]		Temp °C
	Liquid	Vapour	Liquid v <sub>f</sub>	Vapour v <sub>g</sub>	Liquid d <sub>f</sub>	Vapour d <sub>g</sub>	Liquid H <sub>f</sub>	Latent H <sub>fg</sub>	Vapour H <sub>g</sub>	Liquid S <sub>f</sub>	Vapour S <sub>g</sub>	
-100	1.434	0.7	0.0006	21.0526	1542.7	0.048	93.7	260.5	354.3	0.5218	2.0620	-100
-99	1.574	0.8	0.0006	19.1205	1540.5	0.052	94.7	260.1	354.8	0.5271	2.0555	-99
-98	1.725	0.9	0.0007	17.3611	1538.3	0.058	95.6	259.6	355.2	0.5325	2.0492	-98
-97	1.888	1.0	0.0007	15.7978	1536.0	0.063	96.5	259.2	355.7	0.5378	2.0431	-97
-96	2.065	1.1	0.0007	14.3885	1533.8	0.070	97.5	258.7	356.2	0.5431	2.0370	-96
-95	2.255	1.2	0.0007	13.1406	1531.6	0.076	98.4	258.3	356.7	0.5484	2.0310	-95
-94	2.46	1.3	0.0007	11.9904	1529.4	0.083	99.4	257.8	357.2	0.5537	2.0252	-94
-93	2.681	1.5	0.0007	10.9649	1527.1	0.091	100.3	257.4	357.7	0.5589	2.0195	-93
-92	2.919	1.6	0.0007	10.0402	1524.9	0.100	101.2	257.0	358.2	0.5641	2.0138	-92
-91	3.174	1.8	0.0007	9.2081	1522.6	0.109	102.2	256.5	358.7	0.5694	2.0083	-91
-90	3.449	1.9	0.0007	8.4459	1520.3	0.118	103.1	256.1	359.2	0.5746	2.0029	-90
-89	3.743	2.1	0.0007	7.7580	1518.0	0.129	104.1	255.6	359.7	0.5798	1.9976	-89
-88	4.058	2.3	0.0007	7.1378	1515.8	0.140	105.1	255.2	360.2	0.5849	1.9924	-88
-87	4.395	2.5	0.0007	6.5746	1513.5	0.152	106.0	254.7	360.7	0.5901	1.9872	-87
-86	4.756	2.8	0.0007	6.0569	1511.2	0.165	107.0	254.3	361.2	0.5952	1.9822	-86
-85	5.141	3.0	0.0007	5.5897	1508.9	0.179	107.9	253.8	361.7	0.6004	1.9773	-85
-84	5.552	3.3	0.0007	5.1653	1506.5	0.194	108.9	253.4	362.2	0.6055	1.9725	-84
-83	5.991	3.6	0.0007	4.7755	1504.2	0.209	109.9	252.9	362.8	0.6106	1.9677	-83
-82	6.458	3.9	0.0007	4.4209	1501.9	0.226	110.8	252.4	363.3	0.6157	1.9631	-82
-81	6.956	4.2	0.0007	4.0950	1499.5	0.244	111.8	252.0	363.8	0.6207	1.9585	-81
-80	7.486	4.5	0.0007	3.7979	1497.2	0.263	112.8	251.5	364.3	0.6258	1.9540	-80
-79	8.048	4.9	0.0007	3.5261	1494.8	0.284	113.8	251.1	364.8	0.6308	1.9496	-79
-78	8.646	5.3	0.0007	3.2765	1492.5	0.305	114.7	250.6	365.4	0.6358	1.9453	-78
-77	9.281	5.7	0.0007	3.0469	1490.1	0.328	115.7	250.2	365.9	0.6409	1.9410	-77
-76	9.954	6.2	0.0007	2.8361	1487.7	0.353	116.7	249.7	366.4	0.6459	1.9369	-76
-75	10.667	6.7	0.0007	2.6427	1485.3	0.378	117.7	249.3	366.9	0.6509	1.9328	-75
-74	11.422	7.2	0.0007	2.4643	1482.9	0.406	118.7	248.8	367.5	0.6558	1.9288	-74
-73	12.221	7.8	0.0007	2.2999	1480.5	0.435	119.7	248.3	368.0	0.6608	1.9249	-73
-72	13.066	8.4	0.0007	2.1482	1478.1	0.466	120.7	247.9	368.5	0.6657	1.9210	-72
-71	13.959	9.0	0.0007	2.0084	1475.6	0.498	121.7	247.4	369.1	0.6707	1.9172	-71
-70	14.901	9.6	0.0007	1.8790	1473.2	0.532	122.7	246.9	369.6	0.6756	1.9135	-70
-69	15.896	10.3	0.0007	1.7596	1470.7	0.568	123.7	246.5	370.1	0.6805	1.9099	-69
-68	16.945	11.1	0.0007	1.6488	1468.3	0.607	124.7	246.0	370.7	0.6854	1.9063	-68
-67	18.05	11.9	0.0007	1.5463	1465.8	0.647	125.7	245.5	371.2	0.6903	1.9028	-67
-66	19.214	12.7	0.0007	1.4512	1463.4	0.689	126.7	245.1	371.7	0.6952	1.8993	-66
-65	20.439	13.6	0.0007	1.3630	1460.9	0.734	127.7	244.6	372.3	0.7001	1.8959	-65
-64	21.727	14.5	0.0007	1.2811	1458.4	0.781	128.7	244.1	372.8	0.7049	1.8926	-64
-63	23.081	15.5	0.0007	1.2050	1455.9	0.830	129.7	243.7	373.4	0.7098	1.8894	-63
-62	24.504	16.6	0.0007	1.1342	1453.4	0.882	130.7	243.2	373.9	0.7146	1.8862	-62
-61	25.997	17.7	0.0007	1.0683	1450.8	0.936	131.8	242.7	374.5	0.7194	1.8830	-61
-60	27.564	18.8	0.0007	1.0069	1448.3	0.993	132.8	242.2	375.0	0.7242	1.8800	-60
-59	29.207	20.0	0.0007	0.9497	1445.8	1.053	133.8	241.7	375.5	0.7290	1.8769	-59
-58	30.929	21.3	0.0007	0.8963	1443.2	1.116	134.8	241.3	376.1	0.7338	1.8740	-58
-57	32.732	22.7	0.0007	0.8465	1440.7	1.181	135.9	240.8	376.6	0.7386	1.8711	-57
-56	34.62	24.1	0.0007	0.7999	1438.1	1.250	136.9	240.3	377.2	0.7434	1.8682	-56
-55	36.596	25.6	0.0007	0.7564	1435.5	1.322	137.9	239.8	377.7	0.7481	1.8654	-55
-54	38.662	27.1	0.0007	0.7157	1433.0	1.397	139.0	239.3	378.3	0.7529	1.8627	-54
-53	40.821	28.8	0.0007	0.6776	1430.4	1.476	140.0	238.8	378.8	0.7576	1.8600	-53
-52	43.076	30.5	0.0007	0.6418	1427.8	1.558	141.1	238.3	379.4	0.7623	1.8573	-52
-51	45.431	32.3	0.0007	0.6083	1425.1	1.644	142.1	237.8	379.9	0.7671	1.8547	-51
-50	47.889	34.2	0.0007	0.5770	1422.5	1.733	143.2	237.3	380.5	0.7718	1.8522	-50
-49	50.453	36.2	0.0007	0.5475	1419.9	1.827	144.2	236.8	381.1	0.7765	1.8497	-49
-48	53.125	38.3	0.0007	0.5198	1417.2	1.924	145.3	236.3	381.6	0.7812	1.8472	-48
-47	55.911	40.4	0.0007	0.4938	1414.6	2.025	146.3	235.8	382.2	0.7859	1.8448	-47

**TABLE 1** (continued)  
**SUVA®MP66 (R-401B) Saturation Properties - Temperature Table**

Temp °C	Pressure [kPa]		Volume [m <sup>3</sup> /kg]		Density [kg/m <sup>3</sup> ]		Enthalpy [kJ/kg]			Entropy [kJ/K-kg]		Temp °C
	Liquid	Vapour	Liquid v <sub>f</sub>	Vapour v <sub>g</sub>	Liquid d <sub>f</sub>	Vapour d <sub>g</sub>	Liquid H <sub>f</sub>	Latent H <sub>fg</sub>	Vapour H <sub>g</sub>	Liquid S <sub>f</sub>	Vapour S <sub>g</sub>	
-46	58.812	42.7	0.0007	0.4694	1411.9	2.131	147.4	235.3	382.7	0.7905	1.8424	-46
-45	61.832	45.1	0.0007	0.4463	1409.3	2.240	148.5	234.8	383.3	0.7952	1.8401	-45
-44	64.975	47.5	0.0007	0.4247	1406.6	2.355	149.5	234.3	383.8	0.7999	1.8378	-44
-43	68.244	50.1	0.0007	0.4043	1403.9	2.474	150.6	233.8	384.4	0.8045	1.8356	-43
-42	71.644	52.8	0.0007	0.3850	1401.2	2.597	151.7	233.3	384.9	0.8092	1.8334	-42
-41	75.176	55.6	0.0007	0.3669	1398.5	2.726	152.8	232.7	385.5	0.8138	1.8312	-41
-40	78.846	58.5	0.0007	0.3498	1395.8	2.859	153.8	232.2	386.0	0.8184	1.8291	-40
-39	82.657	61.6	0.0007	0.3336	1393.0	2.997	154.9	231.7	386.6	0.8230	1.8270	-39
-38	86.613	64.8	0.0007	0.3183	1390.3	3.141	156.0	231.2	387.2	0.8276	1.8250	-38
-37	90.717	68.1	0.0007	0.3039	1387.5	3.290	157.1	230.6	387.7	0.8322	1.8230	-37
-36	94.974	71.5	0.0007	0.2903	1384.8	3.445	158.2	230.1	388.3	0.8368	1.8210	-36
-35	99.386	75.1	0.0007	0.2774	1382.0	3.605	159.3	229.6	388.8	0.8414	1.8191	-35
-34	103.96	78.8	0.0007	0.2652	1379.2	3.771	160.4	229.0	389.4	0.8460	1.8172	-34
-33	108.697	82.7	0.0007	0.2536	1376.4	3.943	161.5	228.5	389.9	0.8506	1.8153	-33
-32	113.603	86.7	0.0007	0.2426	1373.6	4.122	162.6	227.9	390.5	0.8552	1.8135	-32
-31	118.682	90.8	0.0007	0.2322	1370.8	4.306	163.7	227.4	391.1	0.8597	1.8117	-31
-30	123.937	95.2	0.0007	0.2224	1367.9	4.497	164.8	226.8	391.6	0.8643	1.8100	-30
-29	129.373	99.6	0.0007	0.2130	1365.1	4.695	165.9	226.3	392.2	0.8688	1.8082	-29
-28	134.994	104.3	0.0007	0.2041	1362.3	4.899	167.0	225.7	392.7	0.8734	1.8065	-28
-27	140.805	109.1	0.0007	0.1957	1359.4	5.110	168.1	225.1	393.3	0.8779	1.8049	-27
-26	146.809	114.1	0.0007	0.1877	1356.5	5.328	169.2	224.6	393.8	0.8824	1.8032	-26
-25	153.011	119.3	0.0007	0.1801	1353.6	5.554	170.4	224.0	394.4	0.8869	1.8016	-25
-24	159.416	124.6	0.0007	0.1728	1350.7	5.787	171.5	223.4	394.9	0.8914	1.8000	-24
-23	166.028	130.2	0.0007	0.1659	1347.8	6.027	172.6	222.8	395.5	0.8960	1.7985	-23
-22	172.852	135.9	0.0007	0.1593	1344.9	6.276	173.8	222.3	396.0	0.9005	1.7970	-22
-21	179.892	141.8	0.0007	0.1531	1342.0	6.532	174.9	221.7	396.6	0.9050	1.7955	-21
-20	187.152	147.9	0.0007	0.1471	1339.0	6.796	176.0	221.1	397.1	0.9095	1.7940	-20
-19	194.637	154.3	0.0007	0.1415	1336.1	7.069	177.2	220.5	397.7	0.9139	1.7925	-19
-18	202.352	160.8	0.0008	0.1361	1333.1	7.350	178.3	219.9	398.2	0.9184	1.7911	-18
-17	210.302	167.6	0.0008	0.1309	1330.1	7.640	179.5	219.3	398.8	0.9229	1.7897	-17
-16	218.491	174.6	0.0008	0.1260	1327.2	7.939	180.6	218.7	399.3	0.9274	1.7884	-16
-15	226.925	181.8	0.0008	0.1213	1324.1	8.247	181.8	218.1	399.8	0.9318	1.7870	-15
-14	235.566	189.2	0.0008	0.1168	1321.1	8.563	184.0	216.4	400.4	0.9403	1.7857	-14
-13	244.445	196.8	0.0008	0.1125	1318.1	8.889	185.1	215.8	400.9	0.9447	1.7844	-13
-12	253.579	204.7	0.0008	0.1084	1315.1	9.224	186.3	215.2	401.5	0.9490	1.7832	-12
-11	262.975	212.8	0.0008	0.1045	1312.0	9.569	187.4	214.6	402.0	0.9534	1.7819	-11
-10	272.637	221.2	0.0008	0.1008	1309.0	9.924	188.6	214.0	402.6	0.9577	1.7807	-10
-9	282.57	229.8	0.0008	0.0972	1305.9	10.290	189.7	213.4	403.1	0.9621	1.7795	-9
-8	292.778	238.7	0.0008	0.0938	1302.8	10.666	190.9	212.7	403.6	0.9664	1.7783	-8
-7	303.268	247.9	0.0008	0.0905	1299.7	11.053	192.0	212.1	404.2	0.9708	1.7771	-7
-6	314.044	257.3	0.0008	0.0873	1296.6	11.451	193.2	211.5	404.7	0.9751	1.7760	-6
-5	325.111	267.0	0.0008	0.0843	1293.4	11.860	194.4	210.8	405.2	0.9794	1.7748	-5
-4	336.475	277.0	0.0008	0.0814	1290.3	12.280	195.5	210.2	405.7	0.9838	1.7737	-4
-3	348.14	287.2	0.0008	0.0787	1287.1	12.712	196.7	209.5	406.3	0.9881	1.7726	-3
-2	360.118	297.8	0.0008	0.0760	1284.0	13.157	197.6	209.2	406.8	0.9913	1.7715	-2
-1	372.413	308.7	0.0008	0.0735	1280.8	13.614	198.8	208.5	407.3	0.9957	1.7705	-1
0	385.026	319.8	0.0008	0.0710	1277.6	14.084	200.0	207.8	407.8	1.0000	1.7694	0
1	397.961	331.3	0.0008	0.0686	1274.4	14.567	201.2	207.1	408.3	1.0044	1.7684	1
2	411.226	343.1	0.0008	0.0664	1271.1	15.062	202.4	206.5	408.9	1.0087	1.7673	2
3	424.824	355.2	0.0008	0.0642	1267.9	15.571	203.6	205.8	409.4	1.0131	1.7663	3
4	438.755	367.6	0.0008	0.0621	1264.6	16.093	205.3	204.6	409.9	1.0192	1.7654	4
5	453.019	380.3	0.0008	0.0601	1261.4	16.627	206.5	203.9	410.4	1.0235	1.7644	5
6	467.633	393.4	0.0008	0.0582	1258.1	17.175	207.7	203.2	410.9	1.0278	1.7635	6
7	482.602	406.8	0.0008	0.0564	1254.8	17.738	208.9	202.5	411.4	1.0321	1.7625	7

**TABLE 1** (continued)  
**SUVA®MP66 (R-401B) Saturation Properties - Temperature Table**

Temp °C	Pressure [kPa]		Volume [m <sup>3</sup> /kg]		Density [kg/m <sup>3</sup> ]		Enthalpy [kJ/kg]			Entropy [kJ/K·kg]		Temp °C
	Liquid	Vapour	Liquid v <sub>f</sub>	Vapour v <sub>g</sub>	Liquid d <sub>f</sub>	Vapour d <sub>g</sub>	Liquid H <sub>f</sub>	Latent H <sub>fg</sub>	Vapour H <sub>g</sub>	Liquid S <sub>f</sub>	Vapour S <sub>g</sub>	
	8	497.932	420.5	0.0008	0.0546	1251.5	18.315	210.2	201.8	411.9	1.0364	
9	513.627	434.6	0.0008	0.0529	1248.1	18.908	211.4	201.0	412.4	1.0407	1.7607	9
10	529.694	449.1	0.0008	0.0512	1244.8	19.515	212.6	200.3	412.9	1.0450	1.7598	10
11	546.137	463.9	0.0008	0.0497	1241.4	20.139	213.8	199.6	413.4	1.0493	1.7589	11
12	562.964	479.0	0.0008	0.0481	1238.1	20.778	215.1	198.8	413.9	1.0536	1.7580	12
13	580.179	494.6	0.0008	0.0467	1234.7	21.434	216.3	198.1	414.4	1.0579	1.7571	13
14	597.788	510.5	0.0008	0.0452	1231.3	22.107	217.6	197.3	414.9	1.0622	1.7562	14
15	615.797	526.9	0.0008	0.0439	1227.8	22.797	218.8	196.5	415.3	1.0665	1.7554	15
16	634.212	543.6	0.0008	0.0425	1224.4	23.504	220.1	195.8	415.8	1.0708	1.7545	16
17	653.038	560.7	0.0008	0.0413	1220.9	24.229	221.3	195.0	416.3	1.0750	1.7537	17
18	672.281	578.3	0.0008	0.0400	1217.5	24.972	222.6	194.2	416.8	1.0793	1.7529	18
19	691.948	596.2	0.0008	0.0389	1214.0	25.735	223.9	193.4	417.2	1.0836	1.7520	19
20	712.043	614.6	0.0008	0.0377	1210.5	26.516	225.1	192.6	417.7	1.0879	1.7512	20
21	732.573	633.4	0.0008	0.0366	1206.9	27.317	226.4	191.7	418.2	1.0923	1.7504	21
22	753.543	652.6	0.0008	0.0355	1203.4	28.137	227.7	190.9	418.6	1.0966	1.7496	22
23	774.96	672.3	0.0008	0.0345	1199.8	28.979	229.0	190.1	419.1	1.1009	1.7488	23
24	796.83	692.4	0.0008	0.0335	1196.2	29.841	230.3	189.2	419.5	1.1052	1.7480	24
25	819.158	713.0	0.0008	0.0325	1192.6	30.724	231.6	188.4	420.0	1.1095	1.7472	25
26	841.951	734.0	0.0008	0.0316	1189.0	31.630	232.9	187.5	420.4	1.1138	1.7464	26
27	865.215	755.5	0.0008	0.0307	1185.4	32.558	234.2	186.6	420.8	1.1181	1.7457	27
28	888.955	777.5	0.0008	0.0298	1181.7	33.508	235.5	185.7	421.3	1.1224	1.7449	28
29	913.178	800.0	0.0008	0.0290	1178.1	34.483	236.9	184.8	421.7	1.1268	1.7441	29
30	937.89	822.9	0.0009	0.0282	1174.4	35.481	238.2	183.9	422.1	1.1311	1.7433	30
31	963.097	846.3	0.0009	0.0274	1170.6	36.504	239.5	183.0	422.5	1.1354	1.7426	31
32	988.805	870.3	0.0009	0.0266	1166.9	37.552	240.9	182.1	423.0	1.1398	1.7418	32
33	1015.021	894.7	0.0009	0.0259	1163.1	38.626	242.2	181.1	423.4	1.1441	1.7411	33
34	1041.75	919.7	0.0009	0.0252	1159.4	39.726	243.6	180.2	423.8	1.1485	1.7403	34
35	1068.998	945.2	0.0009	0.0245	1155.5	40.854	244.9	179.2	424.2	1.1528	1.7395	35
36	1096.773	971.2	0.0009	0.0238	1151.7	42.009	246.3	178.2	424.6	1.1572	1.7388	36
37	1125.08	997.8	0.0009	0.0232	1147.9	43.193	247.7	177.2	424.9	1.1615	1.7380	37
38	1153.926	1024.9	0.0009	0.0225	1144.0	44.406	249.1	176.2	425.3	1.1659	1.7372	38
39	1183.317	1052.6	0.0009	0.0219	1140.1	45.649	250.5	175.2	425.7	1.1703	1.7365	39
40	1213.259	1080.8	0.0009	0.0213	1136.2	46.923	251.9	174.2	426.1	1.1747	1.7357	40
41	1243.758	1109.6	0.0009	0.0207	1132.2	48.228	253.3	173.2	426.4	1.1791	1.7349	41
42	1274.822	1138.9	0.0009	0.0202	1128.3	49.567	254.7	172.1	426.8	1.1835	1.7342	42
43	1306.455	1168.9	0.0009	0.0196	1124.3	50.938	256.1	171.0	427.1	1.1879	1.7334	43
44	1338.666	1199.4	0.0009	0.0191	1120.3	52.344	257.5	170.0	427.5	1.1923	1.7326	44
45	1371.46	1230.5	0.0009	0.0186	1116.2	53.784	259.0	168.9	427.8	1.1967	1.7318	45
46	1404.843	1262.3	0.0009	0.0181	1112.1	55.262	260.4	167.7	428.2	1.2012	1.7310	46
47	1438.822	1294.6	0.0009	0.0176	1108.0	56.776	261.9	166.6	428.5	1.2056	1.7303	47
48	1473.404	1327.6	0.0009	0.0171	1103.9	58.329	263.3	165.5	428.8	1.2101	1.7295	48
49	1508.595	1361.2	0.0009	0.0167	1099.7	59.921	264.8	164.3	429.1	1.2145	1.7286	49
50	1544.402	1395.5	0.0009	0.0162	1095.5	61.554	266.3	163.1	429.4	1.2190	1.7278	50
51	1580.83	1430.4	0.0009	0.0158	1091.3	63.228	267.8	161.9	429.7	1.2235	1.7270	51
52	1617.887	1465.9	0.0009	0.0154	1087.1	64.946	269.3	160.7	430.0	1.2280	1.7262	52
53	1655.579	1502.1	0.0009	0.0150	1082.8	66.708	270.8	159.5	430.3	1.2325	1.7253	53
54	1693.913	1539.0	0.0009	0.0146	1078.5	68.517	272.3	158.3	430.5	1.2370	1.7245	54
55	1732.895	1576.6	0.0009	0.0142	1074.1	70.372	273.8	157.0	430.8	1.2416	1.7236	55
56	1772.532	1614.9	0.0009	0.0138	1069.7	72.277	275.3	155.7	431.0	1.2461	1.7228	56
57	1812.83	1653.8	0.0009	0.0135	1065.3	74.232	276.9	154.4	431.3	1.2507	1.7219	57
58	1853.796	1693.5	0.0009	0.0131	1060.8	76.239	278.4	153.1	431.5	1.2553	1.7210	58
59	1895.436	1733.9	0.0009	0.0128	1056.3	78.300	280.0	151.7	431.7	1.2599	1.7201	59
60	1937.758	1775.0	0.0010	0.0124	1051.8	80.418	281.6	150.3	431.9	1.2645	1.7191	60
61	1980.766	1816.8	0.0010	0.0121	1047.2	82.593	283.2	149.0	432.1	1.2692	1.7182	61

**TABLE 1** (continued)  
**SUVA®MP66 (R-401B) Saturation Properties - Temperature Table**

Temp °C	Pressure [kPa]		Volume [m <sup>3</sup> /kg]		Density [kg/m <sup>3</sup> ]		Enthalpy [kJ/kg]			Entropy [kJ/K·kg]		Temp °C
	Liquid	Vapour	Liquid v <sub>f</sub>	Vapour v <sub>g</sub>	Liquid d <sub>f</sub>	Vapour d <sub>g</sub>	Liquid H <sub>f</sub>	Latent H <sub>fg</sub>	Vapour H <sub>g</sub>	Liquid S <sub>f</sub>	Vapour S <sub>g</sub>	
62	2024.469	1859.4	0.0010	0.0118	1042.6	84.828	284.8	147.5	432.3	1.2738	1.7172	62
63	2068.873	1902.7	0.0010	0.0115	1037.9	87.125	286.4	146.1	432.5	1.2785	1.7163	63
64	2113.983	1946.8	0.0010	0.0112	1033.2	89.488	288.0	144.6	432.7	1.2832	1.7153	64
65	2159.807	1991.7	0.0010	0.0109	1028.5	91.917	289.7	143.1	432.8	1.2880	1.7142	65
66	2206.351	2037.3	0.0010	0.0106	1023.7	94.416	291.3	141.6	433.0	1.2927	1.7132	66
67	2253.622	2083.8	0.0010	0.0103	1018.8	96.987	293.0	140.1	433.1	1.2975	1.7122	67
68	2301.625	2131.0	0.0010	0.0100	1013.9	99.634	294.7	138.5	433.2	1.3023	1.7111	68
69	2350.368	2179.1	0.0010	0.0098	1008.9	102.360	296.4	136.9	433.3	1.3071	1.7100	69
70	2399.856	2227.9	0.0010	0.0095	1003.9	105.168	298.1	135.3	433.4	1.3120	1.7088	70
71	2450.097	2277.6	0.0010	0.0093	998.8	108.062	299.8	133.6	433.4	1.3169	1.7077	71
72	2501.095	2328.2	0.0010	0.0090	993.7	111.046	301.6	131.9	433.5	1.3218	1.7065	72
73	2552.857	2379.6	0.0010	0.0088	988.5	114.124	303.4	130.2	433.5	1.3267	1.7052	73
74	2605.389	2431.9	0.0010	0.0085	983.2	117.300	305.1	128.4	433.5	1.3317	1.7040	74
75	2658.698	2485.0	0.0010	0.0083	977.8	120.579	307.0	126.6	433.5	1.3367	1.7027	75
76	2712.788	2539.0	0.0010	0.0081	972.4	123.968	308.8	124.7	433.5	1.3418	1.7014	76
77	2767.666	2594.0	0.0010	0.0078	966.9	127.470	310.6	122.8	433.5	1.3469	1.7000	77
78	2823.336	2649.8	0.0010	0.0076	961.3	131.093	312.5	120.9	433.4	1.3521	1.6986	78
79	2879.805	2706.6	0.0010	0.0074	955.6	134.844	314.4	118.9	433.3	1.3573	1.6971	79
80	2937.078	2764.3	0.0011	0.0072	949.8	138.729	316.3	116.9	433.2	1.3625	1.6956	80
81	2995.159	2822.9	0.0011	0.0070	943.9	142.757	318.2	114.8	433.1	1.3678	1.6940	81
82	3054.052	2882.5	0.0011	0.0068	937.9	146.936	320.2	112.7	432.9	1.3732	1.6924	82
83	3113.763	2943.1	0.0011	0.0066	931.8	151.278	322.2	110.5	432.7	1.3786	1.6907	83
84	3174.295	3004.7	0.0011	0.0064	925.6	155.792	324.2	108.3	432.5	1.3841	1.6890	84
85	3235.651	3067.3	0.0011	0.0062	919.2	160.491	326.3	105.9	432.2	1.3896	1.6872	85
86	3297.835	3130.9	0.0011	0.0060	912.7	165.388	328.4	103.6	432.0	1.3953	1.6853	86
87	3360.848	3195.6	0.0011	0.0059	906.0	170.499	330.5	101.1	431.6	1.4010	1.6833	87
88	3424.692	3261.3	0.0011	0.0057	899.1	175.842	332.7	98.6	431.3	1.4068	1.6813	88
89	3489.368	3328.1	0.0011	0.0055	892.1	181.436	334.9	95.9	430.9	1.4127	1.6791	89
90	3554.875	3396.0	0.0011	0.0053	884.8	187.304	337.2	93.2	430.4	1.4187	1.6768	90
91	3621.212	3465.0	0.0011	0.0052	877.3	193.473	339.5	90.4	429.9	1.4248	1.6744	91
92	3688.374	3535.1	0.0012	0.0050	869.5	199.973	341.9	87.4	429.3	1.4311	1.6719	92
93	3756.356	3606.4	0.0012	0.0048	861.4	206.842	344.3	84.4	428.7	1.4375	1.6693	93
94	3825.15	3678.9	0.0012	0.0047	852.9	214.124	346.8	81.2	428.0	1.4441	1.6664	94
95	3894.744	3752.6	0.0012	0.0045	844.1	221.871	349.4	77.8	427.3	1.4509	1.6634	95
96	3965.121	3827.6	0.0012	0.0043	834.8	230.150	352.1	74.3	426.4	1.4578	1.6602	96
97	4036.26	3903.9	0.0012	0.0042	824.9	239.043	354.9	70.6	425.4	1.4651	1.6567	97



**TABLE 2**

**Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables**

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	10			20			30			40			
	(-69.48°C)			(-65.35°C)			(-52.29°C)			(-47.19°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(1.8156)	(369.9)	(1.9119)	(0.95101)	(375.5)	(1.8773)	(0.6519)	(379.2)	(1.8583)	(0.4987)	(382.1)	(1.8455)		
-60	1.9011	375.2	1.9373	-	-	-	-	-	-	-	-	-	-60
-55	1.9462	378.1	1.9506	0.9693	377.9	1.8877	-	-	-	-	-	-	-55
-50	1.9912	381.0	1.9638	0.9919	380.8	1.9012	0.6588	380.6	1.8641	-	-	-	-50
-45	2.0362	383.9	1.9770	1.0146	383.7	1.9144	0.6740	383.6	1.8776	0.5037	383.4	1.8510	-45
-40	2.0813	386.9	1.9900	1.0372	386.8	1.9274	0.6892	386.6	1.8906	0.5152	386.4	1.8644	-40
-35	2.1263	390.0	2.0029	1.0598	389.8	1.9404	0.7044	389.6	1.9036	0.5266	389.5	1.8774	-35
-30	2.1713	393.1	2.0158	1.0825	392.9	1.9533	0.7195	392.7	1.9165	0.5380	392.6	1.8903	-30
-25	2.2163	396.2	2.0286	1.1051	396.1	1.9661	0.7347	395.9	1.9293	0.5494	395.7	1.9032	-25
-20	2.2613	399.4	2.0413	1.1277	399.2	1.9788	0.7498	399.1	1.9421	0.5608	398.9	1.9159	-20
-15	2.3062	402.6	2.0538	1.1502	402.5	1.9914	0.7649	402.3	1.9547	0.5722	402.1	1.9285	-15
-10	2.3512	405.9	2.0664	1.1728	405.7	2.0039	0.7800	405.6	1.9672	0.5836	405.4	1.9411	-10
-5	2.3961	409.2	2.0788	1.1954	409.0	2.0164	0.7951	408.9	1.9797	0.5950	408.7	1.9536	-5
0	2.4411	412.5	2.0911	1.2179	412.4	2.0287	0.8102	412.2	1.9921	0.6064	412.1	1.9660	0
5	2.4860	415.9	2.1034	1.2405	415.8	2.0410	0.8253	415.6	2.0044	0.6177	415.5	1.9783	5
10	2.5310	419.3	2.1156	1.2630	419.2	2.0532	0.8404	419.1	2.0166	0.6291	418.9	1.9905	10
15	2.5759	422.8	2.1277	1.2856	422.6	2.0653	0.8555	422.5	2.0287	0.6404	422.4	2.0026	15
20	2.6208	426.3	2.1397	1.3081	426.1	2.0774	0.8705	426.0	2.0408	0.6518	425.9	2.0147	20
25	2.6657	429.8	2.1517	1.3306	429.7	2.0893	0.8856	429.6	2.0527	0.6631	429.4	2.0267	25
30	2.7107	433.4	2.1635	1.3532	433.3	2.1012	0.9007	433.1	2.0646	0.6744	433.0	2.0386	30
35	2.7556	437.0	2.1753	1.3757	436.9	2.1130	0.9157	436.7	2.0764	0.6857	436.6	2.0504	35
40	2.8005	440.6	2.1870	1.3982	440.5	2.1247	0.9308	440.4	2.0882	0.6971	440.3	2.0622	40
45	2.8454	444.3	2.1987	1.4207	444.2	2.1364	0.9458	444.1	2.0998	0.7084	444.0	2.0738	45
50	2.8903	448.0	2.2103	1.4432	447.9	2.1480	0.9609	447.8	2.1114	0.7197	447.7	2.0854	50
55	2.9351	451.8	2.2218	1.4657	451.7	2.1595	0.9759	451.5	2.1230	0.7310	451.4	2.0970	55
60	2.9800	455.5	2.2332	1.4882	455.4	2.1709	0.9909	455.3	2.1344	0.7423	455.2	2.1084	60
65	3.0249	459.4	2.2446	1.5107	459.3	2.1823	1.0060	459.2	2.1458	0.7536	459.1	2.1198	65
70	3.0698	463.2	2.2559	1.5332	463.1	2.1936	1.0210	463.0	2.1571	0.7649	462.9	2.1311	70
75	3.1147	467.1	2.2671	1.5557	467.0	2.2048	1.0360	466.9	2.1683	0.7762	466.8	2.1424	75
80	3.1595	471.0	2.2783	1.5782	470.9	2.2160	1.0510	470.8	2.1795	0.7875	470.7	2.1536	80
85	3.2044	475.0	2.2894	1.6006	474.9	2.2271	1.0660	474.8	2.1906	0.7987	474.7	2.1647	85
90	3.2493	478.9	2.3004	1.6231	478.8	2.2382	1.0811	478.8	2.2017	0.8100	478.7	2.1758	90

Temp °C	Absolute Pressure kPa												Temp °C
	50			60			70			80			
	(-43.04°C)			(-39.52°C)			(-36.44°C)			(-33.69°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.4051)	(384.4)	(1.8359)	(0.3419)	(386.3)	(1.8284)	(0.2961)	(388.0)	(1.8221)	(0.2615)	(389.6)	(1.8169)		
-35	0.4199	389.3	1.8570	0.3488	389.1	1.8399	0.2980	388.9	1.8256	-	-	-	-35
-30	0.4291	392.4	1.8699	0.3565	392.2	1.8531	0.3047	392.0	1.8389	0.2658	391.9	1.8262	-30
-25	0.4383	395.6	1.8827	0.3642	395.4	1.8660	0.3113	395.2	1.8518	0.2716	395.0	1.8394	-25
-20	0.4475	398.8	1.8955	0.3719	398.6	1.8788	0.3179	398.4	1.8646	0.2774	398.3	1.8522	-20
-15	0.4566	402.0	1.9082	0.3795	401.8	1.8915	0.3245	401.7	1.8773	0.2832	401.5	1.8649	-15
-10	0.4658	405.3	1.9208	0.3872	405.1	1.9041	0.3311	405.0	1.8899	0.2890	404.8	1.8776	-10
-5	0.4749	408.6	1.9333	0.3948	408.4	1.9166	0.3377	408.3	1.9024	0.2948	408.1	1.8901	-5
0	0.4840	411.9	1.9457	0.4025	411.8	1.9290	0.3442	411.7	1.9148	0.3005	411.5	1.9025	0
5	0.4932	415.3	1.9580	0.4101	415.2	1.9413	0.3508	415.1	1.9272	0.3063	414.9	1.9149	5
10	0.5023	418.8	1.9702	0.4177	418.6	1.9536	0.3573	418.5	1.9395	0.3121	418.4	1.9272	10
15	0.5114	422.3	1.9824	0.4253	422.1	1.9657	0.3639	422.0	1.9516	0.3178	421.8	1.9394	15
20	0.5205	425.8	1.9944	0.4330	425.6	1.9778	0.3704	425.5	1.9637	0.3236	425.4	1.9515	20
25	0.5296	429.3	2.0064	0.4406	429.2	1.9898	0.3770	429.1	1.9757	0.3293	428.9	1.9635	25
30	0.5387	432.9	2.0183	0.4482	432.8	2.0018	0.3835	432.6	1.9877	0.3350	432.5	1.9755	30
35	0.5477	436.5	2.0302	0.4558	436.4	2.0136	0.3900	436.3	1.9995	0.3408	436.1	1.9873	35
40	0.5568	440.2	2.0419	0.4633	440.0	2.0254	0.3966	439.9	2.0113	0.3465	439.8	1.9991	40
45	0.5659	443.8	2.0536	0.4709	443.7	2.0371	0.4031	443.6	2.0230	0.3522	443.5	2.0108	45
50	0.5750	447.6	2.0652	0.4785	447.5	2.0487	0.4096	447.3	2.0346	0.3579	447.2	2.0225	50
55	0.5840	451.3	2.0768	0.4861	451.2	2.0602	0.4161	451.1	2.0462	0.3636	451.0	2.0340	55
60	0.5931	455.1	2.0882	0.4937	455.0	2.0717	0.4226	454.9	2.0577	0.3693	454.8	2.0455	60
65	0.6022	458.9	2.0996	0.5012	458.8	2.0831	0.4291	458.7	2.0691	0.3750	458.6	2.0569	65
70	0.6112	462.8	2.1110	0.5088	462.7	2.0944	0.4356	462.6	2.0804	0.3807	462.5	2.0683	70
75	0.6203	466.7	2.1222	0.5163	466.6	2.1057	0.4421	466.5	2.0917	0.3864	466.4	2.0796	75
80	0.6293	470.6	2.1334	0.5239	470.5	2.1169	0.4486	470.4	2.1029	0.3921	470.3	2.0908	80
85	0.6384	474.6	2.1445	0.5315	474.5	2.1280	0.4551	474.4	2.1140	0.3978	474.3	2.1019	85
90	0.6474	478.6	2.1556	0.5390	478.5	2.1391	0.4616	478.4	2.1251	0.4035	478.3	2.1130	90
95	0.6565	482.6	2.1666	0.5465	482.5	2.1501	0.4680	482.4	2.1361	0.4092	482.3	2.1240	95
100	0.6655	486.6	2.1775	0.5541	486.6	2.1610	0.4745	486.5	2.1471	0.4148	486.4	2.1349	100
105	0.6745	490.7	2.1884	0.5616	490.6	2.1719	0.4810	490.5	2.1579	0.4205	490.5	2.1458	105
110	0.6836	494.8	2.1992	0.5692	494.8	2.1827	0.4875	494.7	2.1688	0.4262	494.6	2.1567	110
115	0.6926	499.0	2.2099	0.5767	498.9	2.1935	0.4939	498.8	2.1795	0.4319	498.7	2.1674	115

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	90			100			101.325			110			
	(-31.2°C)			(-28.92°C)			(-28.64°C)			(-26.82°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.2343)	(390.9)	(1.8123)	(0.2123)	(392.2)	(1.8083)	(0.2097)	(392.4)	1.8079	(0.1942)	(393.4)	(1.8048)		
-25	0.2407	394.9	1.8284	0.2160	394.7	1.8183	0.2131	394.7	1.8170	0.1958	394.5	1.8093	-25
-20	0.2459	398.1	1.8412	0.2207	397.9	1.8314	0.2177	397.9	1.8301	0.2001	397.8	1.8224	-20
-15	0.2511	401.4	1.8540	0.2254	401.2	1.8441	0.2224	401.2	1.8429	0.2043	401.0	1.8352	-15
-10	0.2562	404.7	1.8666	0.2300	404.5	1.8568	0.2270	404.5	1.8556	0.2086	404.3	1.8479	-10
-5	0.2614	408.0	1.8792	0.2347	407.8	1.8694	0.2316	407.8	1.8682	0.2129	407.7	1.8605	-5
0	0.2666	411.4	1.8917	0.2394	411.2	1.8819	0.2362	411.2	1.8806	0.2171	411.1	1.8730	0
5	0.2717	414.8	1.9040	0.2440	414.6	1.8943	0.2408	414.6	1.8931	0.2214	414.5	1.8854	5
10	0.2768	418.2	1.9163	0.2486	418.1	1.9066	0.2453	418.1	1.9054	0.2256	417.9	1.8977	10
15	0.2820	421.7	1.9285	0.2533	421.6	1.9188	0.2499	421.6	1.9176	0.2298	421.4	1.9100	15
20	0.2871	425.2	1.9406	0.2579	425.1	1.9309	0.2545	425.1	1.9297	0.2340	425.0	1.9221	20
25	0.2922	428.8	1.9527	0.2625	428.7	1.9430	0.2590	428.7	1.9418	0.2382	428.5	1.9342	25
30	0.2973	432.4	1.9646	0.2671	432.3	1.9549	0.2636	432.3	1.9537	0.2425	432.1	1.9461	30
35	0.3024	436.0	1.9765	0.2718	435.9	1.9668	0.2682	435.9	1.9656	0.2467	435.8	1.9580	35
40	0.3075	439.7	1.9883	0.2764	439.6	1.9786	0.2727	439.6	1.9774	0.2509	439.5	1.9698	40
45	0.3126	443.4	2.0000	0.2810	443.3	1.9904	0.2772	443.3	1.9892	0.2551	443.2	1.9816	45
50	0.3177	447.1	2.0117	0.2856	447.0	2.0020	0.2818	447.0	2.0008	0.2592	446.9	1.9933	50
55	0.3228	450.9	2.0233	0.2901	450.8	2.0136	0.2863	450.8	2.0124	0.2634	450.7	2.0048	55
60	0.3279	454.7	2.0347	0.2947	454.6	2.0251	0.2908	454.6	2.0239	0.2676	454.5	2.0164	60
65	0.3330	458.5	2.0462	0.2993	458.4	2.0365	0.2954	458.4	2.0353	0.2718	458.3	2.0278	65
70	0.3380	462.4	2.0575	0.3039	462.3	2.0479	0.2999	462.3	2.0467	0.2760	462.2	2.0392	70
75	0.3431	466.3	2.0688	0.3085	466.2	2.0592	0.3044	466.2	2.0580	0.2801	466.1	2.0505	75
80	0.3482	470.2	2.0800	0.3130	470.1	2.0704	0.3089	470.1	2.0692	0.2843	470.0	2.0617	80
85	0.3533	474.2	2.0912	0.3176	474.1	2.0816	0.3134	474.1	2.0804	0.2884	474.0	2.0729	85
90	0.3583	478.2	2.1023	0.3222	478.1	2.0927	0.3179	478.1	2.0915	0.2926	478.0	2.0839	90
95	0.3634	482.2	2.1133	0.3267	482.1	2.1037	0.3224	482.1	2.1025	0.2968	482.0	2.0950	95
100	0.3684	486.3	2.1242	0.3313	486.2	2.1146	0.3269	486.2	2.1134	0.3009	486.1	2.1059	100
105	0.3735	490.4	2.1351	0.3359	490.3	2.1255	0.3314	490.3	2.1243	0.3051	490.2	2.1168	105
110	0.3785	494.5	2.1460	0.3404	494.4	2.1364	0.3359	494.4	2.1352	0.3092	494.3	2.1277	110
115	0.3836	498.6	2.1567	0.3450	498.6	2.1471	0.3404	498.6	2.1459	0.3134	498.5	2.1385	115
120	0.3886	502.8	2.1674	0.3495	502.8	2.1578	0.3449	502.7	2.1567	0.3175	502.7	2.1492	120
125	0.3937	507.0	2.1781	0.3541	507.0	2.1685	0.3494	507.0	2.1673	0.3216	506.9	2.1598	125

Temp °C	Absolute Pressure kPa												Temp °C
	120			130			140			150			
	(-24.86°C)			(-23.03°C)			(-21.30°C)			(-19.67°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.1790)	(394.4)	(1.8016)	(0.1661)	(395.5)	(1.7988)	(0.1550)	(396.4)	(1.7962)	(0.14525)	(397.3)	(1.7938)		
-20	0.1829	397.6	1.8139	0.1683	397.4	1.8063	0.1559	397.3	1.7993	-	-	-	-20
-15	0.1868	400.9	1.8270	0.1720	400.7	1.8194	0.1593	400.5	1.8124	0.1482	400.4	1.8055	-15
-10	0.1907	404.2	1.8397	0.1756	404.0	1.8322	0.1627	403.9	1.8252	0.1514	403.7	1.8186	-10
-5	0.1947	407.5	1.8523	0.1793	407.4	1.8448	0.1661	407.2	1.8378	0.1546	407.1	1.8312	-5
0	0.1986	410.9	1.8648	0.1829	410.8	1.8573	0.1694	410.6	1.8503	0.1578	410.5	1.8438	0
5	0.2025	414.3	1.8773	0.1865	414.2	1.8698	0.1728	414.1	1.8628	0.1609	413.9	1.8563	5
10	0.2064	417.8	1.8896	0.1901	417.7	1.8821	0.1762	417.5	1.8752	0.1641	417.4	1.8687	10
15	0.2103	421.3	1.9019	0.1937	421.2	1.8944	0.1795	421.0	1.8874	0.1672	420.9	1.8809	15
20	0.2141	424.8	1.9140	0.1973	424.7	1.9065	0.1829	424.6	1.8996	0.1704	424.4	1.8931	20
25	0.2180	428.4	1.9261	0.2009	428.3	1.9186	0.1862	428.2	1.9117	0.1735	428.0	1.9052	25
30	0.2219	432.0	1.9381	0.2045	431.9	1.9306	0.1896	431.8	1.9237	0.1766	431.6	1.9173	30
35	0.2257	435.7	1.9500	0.2081	435.5	1.9426	0.1929	435.4	1.9357	0.1797	435.3	1.9292	35
40	0.2296	439.3	1.9618	0.2116	439.2	1.9544	0.1962	439.1	1.9475	0.1829	439.0	1.9411	40
45	0.2335	443.0	1.9736	0.2152	442.9	1.9661	0.1995	442.8	1.9593	0.1860	442.7	1.9528	45
50	0.2373	446.8	1.9852	0.2188	446.7	1.9778	0.2029	446.6	1.9710	0.1891	446.4	1.9645	50
55	0.2412	450.6	1.9968	0.2223	450.4	1.9894	0.2062	450.3	1.9826	0.1922	450.2	1.9762	55
60	0.2450	454.4	2.0083	0.2259	454.3	2.0010	0.2095	454.2	1.9941	0.1953	454.0	1.9877	60
65	0.2488	458.2	2.0198	0.2294	458.1	2.0124	0.2128	458.0	2.0056	0.1984	457.9	1.9992	65
70	0.2527	462.1	2.0312	0.2330	462.0	2.0238	0.2161	461.9	2.0170	0.2014	461.8	2.0106	70
75	0.2565	466.0	2.0425	0.2365	465.9	2.0351	0.2194	465.8	2.0283	0.2045	465.7	2.0219	75
80	0.2603	469.9	2.0537	0.2400	469.8	2.0464	0.2227	469.7	2.0395	0.2076	469.6	2.0327	80
85	0.2641	473.9	2.0649	0.2436	473.8	2.0575	0.2260	473.7	2.0507	0.2107	473.6	2.0444	85
90	0.2680	477.9	2.0760	0.2471	477.8	2.0686	0.2292	477.7	2.0618	0.2138	477.6	2.0555	90
95	0.2718	481.9	2.0870	0.2506	481.9	2.0797	0.2325	481.8	2.0729	0.2168	481.7	2.0665	95
100	0.2756	486.0	2.0980	0.2542	485.9	2.0907	0.2358	485.8	2.0839	0.2199	485.7	2.0775	100
105	0.2794	490.1	2.1089	0.2577	490.0	2.1016	0.2391	489.9	2.0948	0.2230	489.8	2.0884	105
110	0.2832	494.2	2.1197	0.2612	494.2	2.1124	0.2424	494.1	2.1056	0.2260	494.0	2.0993	110
115	0.2870	498.4	2.1305	0.2647	498.3	2.1232	0.2456	498.2	2.1164	0.2291	498.1	2.1101	115
120	0.2908	502.6	2.1412	0.2683	502.5	2.1339	0.2489	502.4	2.1271	0.2321	502.3	2.1208	120
125	0.2946	506.8	2.1519	0.2718	506.7	2.1446	0.2522	506.6	2.1378	0.2352	506.6	2.1315	125
130	0.2984	511.1	2.1625	0.2753	511.0	2.1552	0.2554	510.9	2.1484	0.2383	510.8	2.1421	130

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	160			170			180			190			
	(-18.12°C)			(-16.65°C)			(-15.24°C)			(-13.89°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.1367)	(398.1)	(1.7916)	(0.1291)	(398.9)	(1.7895)	(0.1224)	(399.7)	(1.7876)	(0.1163)	(400.5)	(1.7858)		
-15	0.1386	400.2	1.7993	0.1301	400.0	1.7935	0.1225	399.9	1.7880	-	-	-	-15
-10	0.1416	403.6	1.8124	0.1329	403.4	1.8066	0.1252	403.2	1.8011	0.1183	403.1	1.7956	-10
-5	0.1446	406.9	1.8251	0.1358	406.8	1.8193	0.1279	406.6	1.8138	0.1209	406.4	1.8086	-5
0	0.1476	410.3	1.8377	0.1386	410.2	1.8319	0.1306	410.0	1.8264	0.1234	409.9	1.8212	0
5	0.1505	413.8	1.8502	0.1414	413.6	1.8444	0.1332	413.5	1.8389	0.1259	413.3	1.8337	5
10	0.1535	417.2	1.8626	0.1442	417.1	1.8568	0.1359	417.0	1.8514	0.1285	416.8	1.8462	10
15	0.1565	420.8	1.8749	0.1470	420.6	1.8691	0.1385	420.5	1.8637	0.1310	420.3	1.8585	15
20	0.1594	424.3	1.8871	0.1498	424.2	1.8813	0.1412	424.0	1.8759	0.1335	423.9	1.8708	20
25	0.1624	427.9	1.8992	0.1525	427.8	1.8935	0.1438	427.6	1.8881	0.1360	427.5	1.8829	25
30	0.1653	431.5	1.9112	0.1553	431.4	1.9055	0.1464	431.3	1.9001	0.1385	431.1	1.8950	30
35	0.1682	435.2	1.9232	0.1581	435.0	1.9175	0.1491	434.9	1.9121	0.1410	434.8	1.9070	35
40	0.1712	438.9	1.9350	0.1608	438.7	1.9294	0.1517	438.6	1.9240	0.1435	438.5	1.9189	40
45	0.1741	442.6	1.9468	0.1636	442.5	1.9412	0.1543	442.3	1.9358	0.1460	442.2	1.9307	45
50	0.1770	446.3	1.9585	0.1664	446.2	1.9529	0.1569	446.1	1.9475	0.1484	446.0	1.9424	50
55	0.1799	450.1	1.9702	0.1691	450.0	1.9645	0.1595	449.9	1.9592	0.1509	449.8	1.9541	55
60	0.1828	453.9	1.9817	0.1719	453.8	1.9761	0.1621	453.7	1.9707	0.1534	453.6	1.9657	60
65	0.1857	457.8	1.9932	0.1746	457.7	1.9876	0.1647	457.6	1.9822	0.1558	457.5	1.9772	65
70	0.1886	461.7	2.0046	0.1773	461.6	1.9990	0.1673	461.5	1.9937	0.1583	461.4	1.9886	70
75	0.1915	465.6	2.0159	0.1801	465.5	2.0103	0.1699	465.4	2.0050	0.1608	465.3	1.9986	75
80	0.1944	469.5	2.0272	0.1828	469.4	2.0216	0.1725	469.3	2.0163	0.1632	469.2	2.0112	80
85	0.1973	473.5	2.0384	0.1855	473.4	2.0328	0.1750	473.3	2.0275	0.1657	473.2	2.0225	85
90	0.2002	477.5	2.0495	0.1882	477.4	2.0439	0.1776	477.3	2.0386	0.1681	477.3	2.0336	90
95	0.2031	481.6	2.0606	0.1910	481.5	2.0550	0.1802	481.4	2.0497	0.1705	481.3	2.0447	95
100	0.2060	485.7	2.0716	0.1937	485.6	2.0660	0.1828	485.5	2.0607	0.1730	485.4	2.0557	100
105	0.2089	489.8	2.0825	0.1964	489.7	2.0769	0.1853	489.6	2.0716	0.1754	489.5	2.0666	105
110	0.2117	493.9	2.0934	0.1991	493.8	2.0878	0.1879	493.7	2.0825	0.1779	493.6	2.0775	110
115	0.2146	498.1	2.1042	0.2018	498.0	2.0986	0.1905	497.9	2.0933	0.1803	497.8	2.0883	115
120	0.2175	502.3	2.1149	0.2045	502.2	2.1093	0.1930	502.1	2.1041	0.1827	502.0	2.0991	120
125	0.2203	506.5	2.1256	0.2072	506.4	2.1200	0.1956	506.3	2.1147	0.1852	506.2	2.1098	125
130	0.2232	510.7	2.1362	0.2099	510.7	2.1306	0.1981	510.6	2.1254	0.1876	510.5	2.1204	130
135	0.2261	515.0	2.1467	0.2126	514.9	2.1412	0.2007	514.9	2.1359	0.1900	514.8	2.1310	135

Temp °C	Absolute Pressure kPa												Temp °C
	200			210			220			230			
	(-12.59°C)			(-11.35°C)			(-10.14°C)			(-8.98°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.1108)	(401.2)	(1.7842)	(0.1058)	(401.8)	(1.7826)	(0.1013)	(402.5)	(1.7811)	(0.0971)	(403.1)	(1.7797)		
-10	0.1121	402.9	1.7906	0.1065	402.7	1.7858	0.1014	402.6	1.7812	-	-	-	-10
-5	0.1145	406.3	1.8036	0.1088	406.1	1.7988	0.1036	406.0	1.7943	0.0988	405.8	1.7897	-5
0	0.1170	409.7	1.8162	0.1111	409.6	1.8115	0.1058	409.4	1.8070	0.1010	409.3	1.8026	0
5	0.1194	413.2	1.8288	0.1134	413.0	1.8241	0.1080	412.9	1.8196	0.1031	412.7	1.8152	5
10	0.1218	416.7	1.8413	0.1157	416.5	1.8366	0.1102	416.4	1.8321	0.1052	416.2	1.8277	10
15	0.1242	420.2	1.8536	0.1180	420.1	1.8489	0.1124	419.9	1.8444	0.1073	419.8	1.8401	15
20	0.1266	423.8	1.8659	0.1203	423.6	1.8612	0.1146	423.5	1.8567	0.1094	423.4	1.8524	20
25	0.1290	427.4	1.8780	0.1226	427.2	1.8734	0.1168	427.1	1.8689	0.1115	427.0	1.8647	25
30	0.1313	431.0	1.8901	0.1249	430.9	1.8855	0.1190	430.7	1.8810	0.1136	430.6	1.8768	30
35	0.1337	434.7	1.9021	0.1271	434.5	1.8975	0.1212	434.4	1.8931	0.1157	434.3	1.8888	35
40	0.1361	438.4	1.9140	0.1294	438.2	1.9094	0.1233	438.1	1.9050	0.1178	438.0	1.9007	40
45	0.1385	442.1	1.9259	0.1317	442.0	1.9212	0.1255	441.9	1.9168	0.1199	441.7	1.9126	45
50	0.1408	445.9	1.9376	0.1339	445.8	1.9330	0.1277	445.6	1.9286	0.1219	445.5	1.9244	50
55	0.1432	449.7	1.9493	0.1362	449.6	1.9447	0.1298	449.4	1.9403	0.1240	449.3	1.9361	55
60	0.1455	453.5	1.9609	0.1384	453.4	1.9563	0.1320	453.3	1.9519	0.1261	453.2	1.9477	60
65	0.1479	457.4	1.9724	0.1407	457.3	1.9678	0.1341	457.1	1.9634	0.1281	457.0	1.9592	65
70	0.1502	461.3	1.9838	0.1429	461.2	1.9792	0.1362	461.1	1.9749	0.1302	460.9	1.9707	70
75	0.1525	465.2	1.9952	0.1451	465.1	1.9906	0.1384	465.0	1.9862	0.1322	464.9	1.9821	75
80	0.1549	469.1	2.0065	0.1474	469.0	2.0019	0.1405	468.9	1.9975	0.1343	468.8	1.9934	80
85	0.1572	473.1	2.0177	0.1496	473.0	2.0131	0.1426	472.9	2.0088	0.1363	472.8	2.0046	85
90	0.1595	477.2	2.0288	0.1518	477.1	2.0243	0.1448	477.0	2.0199	0.1383	476.9	2.0158	90
95	0.1619	481.2	2.0399	0.1540	481.1	2.0354	0.1469	481.0	2.0310	0.1404	480.9	2.0269	95
100	0.1642	485.3	2.0509	0.1562	485.2	2.0464	0.1490	485.1	2.0421	0.1424	485.0	2.0379	100
105	0.1665	489.4	2.0619	0.1584	489.3	2.0573	0.1511	489.2	2.0530	0.1444	489.1	2.0489	105
110	0.1688	493.5	2.0728	0.1607	493.5	2.0682	0.1532	493.4	2.0639	0.1464	493.3	2.0598	110
115	0.1711	497.7	2.0836	0.1629	497.6	2.0791	0.1553	497.6	2.0747	0.1485	497.5	2.0706	115
120	0.1735	501.9	2.0943	0.1651	501.8	2.0898	0.1575	501.8	2.0855	0.1505	501.7	2.0814	120
125	0.1758	506.2	2.1050	0.1673	506.1	2.1005	0.1596	506.0	2.0962	0.1525	505.9	2.0921	125
130	0.1781	510.4	2.1157	0.1695	510.3	2.1112	0.1617	510.3	2.1068	0.1545	510.2	2.1027	130
135	0.1804	514.7	2.1262	0.1717	514.6	2.1217	0.1638	514.6	2.1174	0.1565	514.5	2.1133	135
140	0.1827	519.0	2.1367	0.1739	518.9	2.1322	0.1659	518.9	2.1280	0.1586	518.8	2.1238	140

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	240			250			260			270			
	(-7.86°C)			(-6.77°C)			(-5.72°C)			(-4.7°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0933)	(403.7)	(1.7784)	(0.0898)	(404.3)	(1.7771)	(0.0865)	(404.8)	(1.7759)	(0.0834)	(405.4)	(1.7748)		
-5	0.0945	405.7	1.7855	0.0905	405.5	1.7814	0.0868	405.3	1.7775	-	-	-	-5
0	0.0965	409.1	1.7984	0.0924	408.9	1.7944	0.0887	408.8	1.7905	0.0852	408.6	1.7865	0
5	0.0986	412.6	1.8111	0.0944	412.4	1.8071	0.0906	412.3	1.8032	0.0870	412.1	1.7995	5
10	0.1006	416.1	1.8236	0.0964	415.9	1.8196	0.0925	415.8	1.8157	0.0889	415.7	1.8120	10
15	0.1026	419.6	1.8360	0.0983	419.5	1.8320	0.0944	419.4	1.8282	0.0907	419.2	1.8245	15
20	0.1047	423.2	1.8483	0.1003	423.1	1.8444	0.0962	422.9	1.8405	0.0925	422.8	1.8368	20
25	0.1067	426.8	1.8605	0.1022	426.7	1.8566	0.0981	426.6	1.8528	0.0943	426.4	1.8491	25
30	0.1087	430.5	1.8727	0.1042	430.4	1.8687	0.1000	430.2	1.8649	0.0961	430.1	1.8613	30
35	0.1107	434.2	1.8847	0.1061	434.0	1.8808	0.1018	433.9	1.8770	0.0979	433.8	1.8734	35
40	0.1127	437.9	1.8967	0.1080	437.8	1.8928	0.1037	437.6	1.8890	0.0997	437.5	1.8853	40
45	0.1147	441.6	1.9085	0.1099	441.5	1.9046	0.1056	441.4	1.9009	0.1015	441.3	1.8972	45
50	0.1167	445.4	1.9203	0.1119	445.3	1.9164	0.1074	445.2	1.9127	0.1033	445.1	1.9091	50
55	0.1187	449.2	1.9320	0.1138	449.1	1.9281	0.1092	449.0	1.9244	0.1051	448.9	1.9208	55
60	0.1206	453.1	1.9437	0.1157	452.9	1.9398	0.1111	452.8	1.9360	0.1068	452.7	1.9324	60
65	0.1226	456.9	1.9552	0.1176	456.8	1.9513	0.1129	456.7	1.9476	0.1086	456.6	1.9440	65
70	0.1246	460.8	1.9667	0.1195	460.7	1.9628	0.1147	460.6	1.9591	0.1104	460.5	1.9555	70
75	0.1266	464.8	1.9781	0.1214	464.7	1.9742	0.1166	464.6	1.9705	0.1121	464.5	1.9669	75
80	0.1285	468.7	1.9894	0.1232	468.6	1.9855	0.1184	468.5	1.9818	0.1139	468.4	1.9782	80
85	0.1305	472.7	2.0006	0.1251	472.6	1.9968	0.1202	472.6	1.9931	0.1156	472.5	1.9895	85
90	0.1324	476.8	2.0118	0.1270	476.7	2.0080	0.1220	476.6	2.0043	0.1174	476.5	2.0007	90
95	0.1344	480.8	2.0229	0.1289	480.7	2.0191	0.1238	480.7	2.0154	0.1191	480.6	2.0118	95
100	0.1363	484.9	2.0339	0.1308	484.8	2.0301	0.1256	484.7	2.0264	0.1209	484.7	2.0229	100
105	0.1383	489.1	2.0449	0.1326	489.0	2.0411	0.1274	488.9	2.0374	0.1226	488.8	2.0339	105
110	0.1402	493.2	2.0558	0.1345	493.1	2.0520	0.1292	493.0	2.0483	0.1243	492.9	2.0448	110
115	0.1422	497.4	2.0666	0.1364	497.3	2.0628	0.1310	497.2	2.0592	0.1261	497.1	2.0556	115
120	0.1441	501.6	2.0774	0.1382	501.5	2.0736	0.1328	501.4	2.0700	0.1278	501.3	2.0664	120
125	0.1461	505.8	2.0881	0.1401	505.7	2.0843	0.1346	505.7	2.0807	0.1295	505.6	2.0772	125
130	0.1480	510.1	2.0988	0.1420	510.0	2.0950	0.1364	509.9	2.0913	0.1313	509.9	2.0878	130
135	0.1499	514.4	2.1094	0.1438	514.3	2.1056	0.1382	514.2	2.1019	0.1330	514.2	2.0984	135
140	0.1519	518.7	2.1199	0.1457	518.6	2.1161	0.1400	518.6	2.1125	0.1347	518.5	2.1090	140
145	0.1538	523.1	2.1304	0.1475	523.0	2.1266	0.1418	522.9	2.1230	0.1364	522.8	2.1195	145

Temp °C	Absolute Pressure kPa												Temp °C
	280			290			300			310			
	(-3.7°C)			(-2.74°C)			(-1.8°C)			(-0.88°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0806)	(405.9)	(1.7737)	(0.0780)	(406.4)	(1.7726)	(0.0755)	(406.9)	(1.7716)	(0.0732)	(407.4)	(1.7706)		
0	0.0819	408.5	1.7829	0.0789	408.3	1.7793	0.0761	408.1	1.7759	0.0734	408.0	1.7726	0
5	0.0837	412.0	1.7958	0.0806	411.8	1.7923	0.0778	411.7	1.7889	0.0751	411.5	1.7856	5
10	0.0855	415.5	1.8084	0.0824	415.4	1.8049	0.0794	415.2	1.8015	0.0767	415.1	1.7983	10
15	0.0873	419.1	1.8209	0.0841	418.9	1.8174	0.0811	418.8	1.8141	0.0783	418.6	1.8108	15
20	0.0890	422.7	1.8333	0.0858	422.5	1.8298	0.0828	422.4	1.8265	0.0799	422.2	1.8232	20
25	0.0908	426.3	1.8456	0.0875	426.2	1.8421	0.0844	426.0	1.8388	0.0815	425.9	1.8355	25
30	0.0925	430.0	1.8577	0.0892	429.8	1.8543	0.0860	429.7	1.8510	0.0831	429.6	1.8428	30
35	0.0943	433.7	1.8698	0.0909	433.5	1.8664	0.0877	433.4	1.8631	0.0847	433.3	1.8599	35
40	0.0960	437.4	1.8818	0.0925	437.3	1.8784	0.0893	437.1	1.8751	0.0863	437.0	1.8719	40
45	0.0977	441.1	1.8937	0.0942	441.0	1.8903	0.0909	440.9	1.8871	0.0879	440.8	1.8839	45
50	0.0994	444.9	1.9056	0.0959	444.8	1.9022	0.0925	444.7	1.8989	0.0894	444.6	1.8957	50
55	0.1012	448.8	1.9173	0.0975	448.6	1.9139	0.0942	448.5	1.9107	0.0910	448.4	1.9075	55
60	0.1029	452.6	1.9290	0.0992	452.5	1.9256	0.0958	452.4	1.9223	0.0926	452.3	1.9192	60
65	0.1046	456.5	1.9405	0.1009	456.4	1.9372	0.0974	456.3	1.9339	0.0941	456.2	1.9308	65
70	0.1063	460.4	1.9520	0.1025	460.3	1.9487	0.0990	460.2	1.9454	0.0957	460.1	1.9423	70
75	0.1080	464.4	1.9635	0.1041	464.3	1.9601	0.1006	464.2	1.9569	0.0972	464.1	1.9537	75
80	0.1097	468.3	1.9748	0.1058	468.2	1.9715	0.1022	468.1	1.9682	0.0987	468.0	1.9651	80
85	0.1114	472.4	1.9861	0.1074	472.3	1.9827	0.1037	472.2	1.9795	0.1003	472.1	1.9764	85
90	0.1131	476.4	1.9973	0.1091	476.3	1.9940	0.1053	476.2	1.9907	0.1018	476.1	1.9876	90
95	0.1148	480.5	2.0084	0.1107	480.4	2.0051	0.1069	480.3	2.0019	0.1034	480.2	1.9988	95
100	0.1164	484.6	2.0195	0.1123	484.5	2.0162	0.1085	484.4	2.0129	0.1049	484.3	2.0098	100
105	0.1181	488.7	2.0305	0.1140	488.6	2.0271	0.1101	488.5	2.0240	0.1064	488.4	2.0209	105
110	0.1198	492.9	2.0414	0.1156	492.8	2.0381	0.1116	492.7	2.0349	0.1079	492.6	2.0318	110
115	0.1215	497.0	2.0522	0.1172	497.0	2.0489	0.1132	496.9	2.0458	0.1095	496.8	2.0427	115
120	0.1232	501.3	2.0630	0.1188	501.2	2.0597	0.1148	501.1	2.0566	0.1110	501.0	2.0535	120
125	0.1248	505.5	2.0738	0.1204	505.4	2.0705	0.1163	505.3	2.0673	0.1125	505.3	2.0642	125
130	0.1265	509.8	2.0844	0.1220	509.7	2.0812	0.1179	509.6	2.0780	0.1140	509.5	2.0749	130
135	0.1282	514.1	2.0950	0.1237	514.0	2.0918	0.1195	513.9	2.0886	0.1155	513.8	2.0855	135
140	0.1298	518.4	2.1056	0.1253	518.3	2.1023	0.1210	518.3	2.0991	0.1170	518.2	2.0961	140
145	0.1315	522.8	2.1161	0.1269	522.7	2.1128	0.1226	522.6	2.1096	0.1185	522.5	2.1066	145
150	0.1331	527.2	2.1265	0.1285	527.1	2.1232	0.1241	527.0	2.1201	0.1200	526.9	2.1170	150

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg

H = Enthalpy in kJ/kg

S = Entropy in kJ/kg.K

Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	320			330			340			350			
	(+0.01°C)			(+0.89°C)			(+1.74°C)			(+2.57°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0710)	(407.8)	(1.7697)	(0.0689)	(408.3)	(1.7687)	(0.0670)	(408.7)	(1.7679)	(0.0651)	(409.2)	(1.767)		
5	0.0726	411.4	1.7824	0.0702	411.2	1.7793	0.0680	411.0	1.7762	0.0659	410.9	1.7733	5
10	0.0741	414.9	1.7951	0.0717	414.8	1.7920	0.0695	414.6	1.7889	0.0673	414.5	1.7860	10
15	0.0757	418.5	1.8076	0.0733	418.3	1.8045	0.0709	418.2	1.8015	0.0688	418.0	1.7986	15
20	0.0773	422.1	1.8201	0.0748	422.0	1.8170	0.0724	421.8	1.8140	0.0702	421.7	1.8111	20
25	0.0788	425.8	1.8324	0.0763	425.6	1.8293	0.0739	425.5	1.8263	0.0717	425.3	1.8234	25
30	0.0804	429.4	1.8446	0.0778	429.3	1.8416	0.0754	429.2	1.8386	0.0731	429.0	1.8357	30
35	0.0819	433.1	1.8568	0.0793	433.0	1.8537	0.0768	432.9	1.8508	0.0745	432.8	1.8479	35
40	0.0835	436.9	1.8688	0.0808	436.8	1.8658	0.0783	436.6	1.8628	0.0759	436.5	1.8600	40
45	0.0850	440.7	1.8808	0.0823	440.5	1.8777	0.0797	440.4	1.8748	0.0773	440.3	1.8720	45
50	0.0865	444.5	1.8926	0.0838	444.3	1.8896	0.0812	444.2	1.8867	0.0787	444.1	1.8839	50
55	0.0880	448.3	1.9044	0.0852	448.2	1.9014	0.0826	448.1	1.8985	0.0801	448.0	1.8957	55
60	0.0895	452.2	1.9161	0.0867	452.1	1.9131	0.0841	451.9	1.9102	0.0815	451.8	1.9074	60
65	0.0911	456.1	1.9277	0.0882	456.0	1.9247	0.0855	455.8	1.9218	0.0829	455.7	1.9190	65
70	0.0926	460.0	1.9392	0.0896	459.9	1.9363	0.0869	459.8	1.9334	0.0843	459.7	1.9306	70
75	0.0941	464.0	1.9507	0.0911	463.8	1.9477	0.0883	463.7	1.9449	0.0857	463.6	1.9421	75
80	0.0956	467.9	1.9621	0.0926	467.8	1.9591	0.0897	467.7	1.9563	0.0871	467.6	1.9535	80
85	0.0971	472.0	1.9734	0.0940	471.9	1.9704	0.0912	471.8	1.9676	0.0885	471.7	1.9648	85
90	0.0985	476.0	1.9846	0.0955	475.9	1.9817	0.0926	475.8	1.9788	0.0898	475.7	1.9720	90
95	0.1000	480.1	1.9957	0.0969	480.0	1.9928	0.0940	479.9	1.9900	0.0912	479.8	1.9862	95
100	0.1015	484.2	2.0068	0.0984	484.1	2.0039	0.0954	484.0	2.0011	0.0926	483.9	1.9983	100
105	0.1030	488.3	2.0178	0.0998	488.2	2.0149	0.0968	488.2	2.0121	0.0939	488.1	2.0093	105
110	0.1045	492.5	2.0288	0.1012	492.4	2.0259	0.0982	492.3	2.0230	0.0953	492.2	2.0203	110
115	0.1060	496.7	2.0397	0.1027	496.6	2.0368	0.0996	496.5	2.0339	0.0966	496.4	2.0312	115
120	0.1074	500.9	2.0505	0.1041	500.8	2.0476	0.1010	500.8	2.0448	0.0980	500.7	2.0420	120
125	0.1089	505.2	2.0612	0.1055	505.1	2.0583	0.1023	505.0	2.0555	0.0993	504.9	2.0528	125
130	0.1104	509.5	2.0719	0.1070	509.4	2.0690	0.1037	509.3	2.0662	0.1007	509.2	2.0635	130
135	0.1118	513.8	2.0825	0.1084	513.7	2.0797	0.1051	513.6	2.0768	0.1020	513.5	2.0741	135
140	0.1133	518.1	2.0931	0.1098	518.0	2.0902	0.1065	518.0	2.0874	0.1034	517.9	2.0847	140
145	0.1148	522.5	2.1036	0.1112	522.4	2.1007	0.1079	522.3	2.0979	0.1047	522.2	2.0952	145
150	0.1162	526.9	2.1141	0.1126	526.8	2.1112	0.1093	526.7	2.1084	0.1061	526.6	2.1057	150
155	0.1177	531.3	2.1244	0.1141	531.2	2.1216	0.1106	531.1	2.1188	0.1074	531.1	2.1161	155

Temp °C	Absolute Pressure kPa												Temp °C
	360			370			380			390			
	(3.39°C)			(4.19°C)			(4.97°C)			(5.74°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0634)	(409.6)	(1.7662)	(0.0618)	(410.0)	(1.7655)	(0.0602)	(410.4)	(1.7647)	(0.0587)	(410.8)	(1.7640)		
5	0.0639	410.7	1.7704	0.0620	410.6	1.7675	0.0602	410.4	1.7648	-	-	-	5
10	0.0653	414.3	1.7831	0.0634	414.1	1.7803	0.0616	414.0	1.7775	0.0599	413.8	1.7748	10
15	0.0667	417.9	1.7957	0.0648	417.8	1.7929	0.0629	417.6	1.7902	0.0612	417.5	1.7875	15
20	0.0681	421.5	1.8082	0.0661	421.4	1.8054	0.0643	421.2	1.8027	0.0625	421.1	1.8001	20
25	0.0695	425.2	1.8206	0.0675	425.1	1.8178	0.0656	424.9	1.8151	0.0638	424.8	1.8125	25
30	0.0709	428.9	1.8329	0.0689	428.8	1.8302	0.0669	428.6	1.8275	0.0651	428.5	1.8248	30
35	0.0723	432.6	1.8451	0.0702	432.5	1.8424	0.0683	432.4	1.8397	0.0664	432.2	1.8371	35
40	0.0737	436.4	1.8572	0.0716	436.3	1.8545	0.0696	436.1	1.8518	0.0677	436.0	1.8492	40
45	0.0751	440.2	1.8692	0.0729	440.0	1.8665	0.0709	439.9	1.8638	0.0690	439.8	1.8612	45
50	0.0764	444.0	1.8811	0.0743	443.9	1.8784	0.0722	443.7	1.8758	0.0702	443.6	1.8732	50
55	0.0778	447.8	1.8929	0.0756	447.7	1.8902	0.0735	447.6	1.8876	0.0715	447.5	1.8850	55
60	0.0792	451.7	1.9046	0.0769	451.6	1.9020	0.0748	451.5	1.8993	0.0728	451.4	1.8968	60
65	0.0805	455.6	1.9163	0.0782	455.5	1.9136	0.0761	455.4	1.9110	0.0740	455.3	1.9085	65
70	0.0819	459.6	1.9279	0.0796	459.5	1.9252	0.0774	459.3	1.9226	0.0753	459.2	1.9200	70
75	0.0832	463.5	1.9393	0.0809	463.4	1.9367	0.0787	463.3	1.9341	0.0766	463.2	1.9316	75
80	0.0846	467.5	1.9507	0.0822	467.4	1.9481	0.0799	467.3	1.9455	0.0778	467.2	1.9430	80
85	0.0859	471.6	1.9621	0.0835	471.5	1.9594	0.0812	471.4	1.9568	0.0790	471.3	1.9543	85
90	0.0872	475.6	1.9733	0.0848	475.5	1.9707	0.0825	475.4	1.9681	0.0803	475.3	1.9656	90
95	0.0886	479.7	1.9845	0.0861	479.6	1.9819	0.0838	479.5	1.9793	0.0815	479.4	1.9768	95
100	0.0899	483.8	1.9956	0.0874	483.7	1.9930	0.0850	483.6	1.9904	0.0828	483.6	1.9879	100
105	0.0912	488.0	2.0066	0.0887	487.9	2.0040	0.0863	487.8	2.0015	0.0840	487.7	1.9990	105
110	0.0926	492.2	2.0176	0.0900	492.1	2.0150	0.0875	492.0	2.0125	0.0852	491.9	2.0100	110
115	0.0939	496.4	2.0285	0.0913	496.3	2.0259	0.0888	496.2	2.0234	0.0865	496.1	2.0209	115
120	0.0952	500.6	2.0393	0.0926	500.5	2.0367	0.0901	500.4	2.0342	0.0877	500.3	2.0317	120
125	0.0965	504.8	2.0501	0.0938	504.8	2.0475	0.0913	504.7	2.0450	0.0889	504.6	2.0425	125
130	0.0978	509.1	2.0608	0.0951	509.1	2.0582	0.0926	509.0	2.0557	0.0901	508.9	2.0532	130
135	0.0991	513.5	2.0715	0.0964	513.4	2.0689	0.0938	513.3	2.0663	0.0913	513.2	2.0639	135
140	0.1005	517.8	2.0820	0.0977	517.7	2.0795	0.0950	517.6	2.0769	0.0925	517.6	2.0745	140
145	0.1018	522.2	2.0926	0.0990	522.1	2.0900	0.0963	522.0	2.0875	0.0938	521.9	2.0850	145
150	0.1031	526.6	2.1030	0.1002	526.5	2.1004	0.0975	526.4	2.0979	0.0950	526.4	2.0955	150
155	0.1044	531.0	2.1134	0.1015	530.9	2.1108	0.0988	530.9	2.1083	0.0962	530.8	2.1059	155

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	400			425			450			475			
	(6.50°C)			(8.32°C)			(10.06°C)			(11.74°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0573)	(411.2)	(1.7632)	(0.0540)	(4121)	(1.7616)	(0.0511)	(412.9)	(1.7600)	(0.0485)	(413.8)	(1.7585)		
10	0.0582	413.7	1.7722	0.0545	413.3	1.7659	-	-	-	-	-	-	10
15	0.0595	417.3	1.7849	0.0557	416.9	1.7786	0.0523	416.5	1.7726	0.0493	416.2	1.7668	15
20	0.0608	421.0	1.7975	0.0569	420.6	1.7912	0.0535	420.2	1.7852	0.0504	419.8	1.7795	20
25	0.0621	424.6	1.8099	0.0581	424.3	1.8037	0.0546	423.9	1.7978	0.0515	423.6	1.7921	25
30	0.0634	428.4	1.8223	0.0594	428.0	1.8161	0.0558	427.7	1.8102	0.0526	427.3	1.8046	30
35	0.0646	432.1	1.8345	0.0606	431.8	1.8284	0.0569	431.4	1.8225	0.0537	431.1	1.8169	35
40	0.0659	435.9	1.8467	0.0618	435.5	1.8405	0.0581	435.2	1.8347	0.0548	434.9	1.8292	40
45	0.0671	439.7	1.8587	0.0629	439.4	1.8526	0.0592	439.0	1.8468	0.0559	438.7	1.8413	45
50	0.0684	443.5	1.8707	0.0641	443.2	1.8646	0.0603	442.9	1.8588	0.0569	442.6	1.8534	50
55	0.0696	447.4	1.8825	0.0653	447.1	1.8765	0.0615	446.8	1.8708	0.0580	446.5	1.8653	55
60	0.0709	451.3	1.8943	0.0665	451.0	1.8883	0.0626	450.7	1.8826	0.0591	450.4	1.8771	60
65	0.0721	455.2	1.9060	0.0676	454.9	1.9000	0.0637	454.6	1.8943	0.0601	454.3	1.8889	65
70	0.0733	459.1	1.9176	0.0688	458.9	1.9116	0.0648	458.6	1.9059	0.0612	458.3	1.9006	70
75	0.0746	463.1	1.9291	0.0700	462.9	1.9231	0.0659	462.6	1.9175	0.0622	462.3	1.9121	75
80	0.0758	467.1	1.9405	0.0711	466.9	1.9346	0.0670	466.6	1.9290	0.0633	466.3	1.9236	80
85	0.0770	471.2	1.9519	0.0723	470.9	1.9460	0.0681	470.7	1.9404	0.0643	470.4	1.9350	85
90	0.0782	475.2	1.9632	0.0734	475.0	1.9573	0.0692	474.7	1.9517	0.0654	474.5	1.9464	90
95	0.0794	479.3	1.9744	0.0746	479.1	1.9685	0.0702	478.9	1.9629	0.0664	478.6	1.9576	95
100	0.0806	483.5	1.9855	0.0757	483.2	1.9796	0.0713	483.0	1.9741	0.0674	482.8	1.9688	100
105	0.0818	487.6	1.9966	0.0768	487.4	1.9907	0.0724	487.2	1.9852	0.0684	486.9	1.9799	105
110	0.0830	491.8	2.0075	0.0780	491.6	2.0017	0.0735	491.4	1.9962	0.0695	491.1	1.9910	110
115	0.0842	496.0	2.0185	0.0791	495.8	2.0126	0.0746	495.6	2.0071	0.0705	495.4	2.0019	115
120	0.0854	500.2	2.0293	0.0802	500.0	2.0235	0.0756	499.8	2.0180	0.0715	499.6	2.0128	120
125	0.0866	504.5	2.0401	0.0814	504.3	2.0343	0.0767	504.1	2.0288	0.0725	503.9	2.0236	125
130	0.0878	508.8	2.0508	0.0825	508.6	2.0450	0.0778	508.4	2.0396	0.0735	508.2	2.0344	130
135	0.0890	513.1	2.0615	0.0836	512.9	2.0557	0.0788	512.7	2.0503	0.0746	512.5	2.0451	135
140	0.0902	517.5	2.0721	0.0847	517.3	2.0663	0.0799	517.1	2.0609	0.0756	516.9	2.0557	140
145	0.0914	521.9	2.0826	0.0859	521.7	2.0769	0.0810	521.5	2.0714	0.0766	521.3	2.0663	145
150	0.0925	526.3	2.0931	0.0870	526.1	2.0874	0.0820	525.9	2.0819	0.0776	525.7	2.0768	150
155	0.0937	530.7	2.1035	0.0881	530.5	2.0978	0.0831	530.3	2.0924	0.0786	530.2	2.0872	155
160	0.0949	535.2	2.1139	0.0892	535.0	2.1081	0.0841	534.8	2.1027	0.0796	534.6	2.0976	160

Temp °C	Absolute Pressure kPa												Temp °C
	500			525			550			575			
	(13.34°C)			(14.89°C)			(16.38°C)			(17.82°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0462)	(414.5)	(1.7571)	(0.0440)	(415.3)	(1.7557)	(0.0421)	(416.0)	(1.7545)	(0.0403)	(416.7)	(1.7533)		
15	0.0465	415.8	1.7613	0.0440	415.4	1.7560	-	-	-	-	-	-	15
20	0.0476	419.5	1.7741	0.0451	419.1	1.7688	0.0428	418.7	1.7638	0.0407	418.3	1.7589	20
25	0.0487	423.2	1.7867	0.0461	422.8	1.7815	0.0438	422.5	1.7765	0.0416	422.1	1.7717	25
30	0.0497	427.0	1.7992	0.0471	426.6	1.7941	0.0448	426.3	1.7891	0.0426	425.9	1.7843	30
35	0.0508	430.8	1.8116	0.0481	430.4	1.8065	0.0457	430.1	1.8016	0.0435	429.7	1.7968	35
40	0.0518	434.6	1.8239	0.0491	434.2	1.8188	0.0467	433.9	1.8139	0.0445	433.6	1.8092	40
45	0.0529	438.4	1.8360	0.0501	438.1	1.8310	0.0476	437.8	1.8261	0.0454	437.4	1.8215	45
50	0.0539	442.3	1.8481	0.0511	442.0	1.8431	0.0486	441.7	1.8383	0.0463	441.3	1.8336	50
55	0.0549	446.2	1.8601	0.0521	445.9	1.8551	0.0495	445.6	1.8503	0.0472	445.3	1.8457	55
60	0.0559	450.1	1.8720	0.0531	449.8	1.8670	0.0505	449.5	1.8622	0.0481	449.2	1.8576	60
65	0.0569	454.1	1.8837	0.0540	453.8	1.8788	0.0514	453.5	1.8741	0.0490	453.2	1.8695	65
70	0.0579	458.0	1.8954	0.0550	457.8	1.8905	0.0523	457.5	1.8858	0.0499	457.2	1.8812	70
75	0.0589	462.1	1.9070	0.0560	461.8	1.9021	0.0533	461.5	1.8974	0.0508	461.2	1.8929	75
80	0.0599	466.1	1.9185	0.0569	465.8	1.9137	0.0542	465.6	1.9090	0.0517	465.3	1.9045	80
85	0.0609	470.2	1.9300	0.0579	469.9	1.9251	0.0551	469.6	1.9205	0.0526	469.4	1.9160	85
90	0.0619	474.2	1.9413	0.0588	474.0	1.9365	0.0560	473.8	1.9318	0.0534	473.5	1.9274	90
95	0.0629	478.4	1.9526	0.0598	478.1	1.9478	0.0569	477.9	1.9432	0.0543	477.6	1.9387	95
100	0.0639	482.5	1.9638	0.0607	482.3	1.9590	0.0578	482.0	1.9544	0.0552	481.8	1.9500	100
105	0.0649	486.7	1.9749	0.0617	486.5	1.9701	0.0587	486.2	1.9655	0.0560	486.0	1.9611	105
110	0.0659	490.9	1.9860	0.0626	490.7	1.9812	0.0596	490.5	1.9766	0.0569	490.2	1.9722	110
115	0.0668	495.1	1.9969	0.0635	494.9	1.9922	0.0605	494.7	1.9876	0.0578	494.5	1.9832	115
120	0.0678	499.4	2.0078	0.0644	499.2	2.0031	0.0614	499.0	1.9985	0.0586	498.8	1.9942	120
125	0.0688	503.7	2.0187	0.0654	503.5	2.0139	0.0623	503.3	2.0094	0.0595	503.1	2.0051	125
130	0.0697	508.0	2.0294	0.0663	507.8	2.0247	0.0632	507.6	2.0202	0.0603	507.4	2.0159	130
135	0.0707	512.3	2.0401	0.0672	512.1	2.0354	0.0641	511.9	2.0309	0.0612	511.7	2.0266	135
140	0.0717	516.7	2.0508	0.0681	516.5	2.0461	0.0649	516.3	2.0416	0.0620	516.1	2.0373	140
145	0.0726	521.1	2.0614	0.0691	520.9	2.0567	0.0658	520.7	2.0522	0.0629	520.5	2.0479	145
150	0.0736	525.5	2.0719	0.0700	525.3	2.0672	0.0667	525.2	2.0627	0.0637	525.0	2.0584	150
155	0.0745	530.0	2.0823	0.0709	529.8	2.0777	0.0676	529.6	2.0732	0.0645	529.4	2.0689	155
160	0.0755	534.5	2.0927	0.0718	534.3	2.0881	0.0684	534.1	2.0836	0.0654	533.9	2.0793	160
165	0.0765	539.0	2.1030	0.0727	538.8	2.0984	0.0693	538.6	2.0939	0.0662	538.4	2.0897	165

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	600			625			650			675			
	(19.21°C)			(20.56°C)			(21.86°C)			(23.14°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0386)	(417.3)	(1.7521)	(0.0371)	(418.0)	(1.7510)	(0.0357)	(418.6)	(1.7500)	(0.0344)	(419.1)	(1.749)		
20	0.0388	417.9	1.7542	-	-	-	-	-	-	-	-	-	20
25	0.0397	421.7	1.7670	0.0379	421.3	1.7625	0.0362	420.9	1.7581	0.0347	420.6	1.7538	25
30	0.0406	425.5	1.7797	0.0388	425.2	1.7752	0.0371	424.8	1.7708	0.0355	424.4	1.7666	30
35	0.0415	429.4	1.7922	0.0397	429.0	1.7878	0.0379	428.7	1.7835	0.0364	428.3	1.7793	35
40	0.0424	433.2	1.8046	0.0405	432.9	1.8002	0.0388	432.5	1.7960	0.0372	432.2	1.7918	40
45	0.0433	437.1	1.8170	0.0414	436.8	1.8126	0.0396	436.4	1.8084	0.0380	436.1	1.8043	45
50	0.0442	441.0	1.8291	0.0423	440.7	1.8248	0.0405	440.4	1.8206	0.0388	440.1	1.8166	50
55	0.0451	445.0	1.8412	0.0431	444.6	1.8369	0.0413	444.3	1.8328	0.0396	444.0	1.8287	55
60	0.0459	448.9	1.8532	0.0439	448.6	1.8489	0.0421	448.3	1.8448	0.0404	448.0	1.8408	60
65	0.0468	452.9	1.8651	0.0448	452.6	1.8608	0.0429	452.3	1.8567	0.0412	452.0	1.8528	65
70	0.0477	456.9	1.8769	0.0456	456.6	1.8727	0.0437	456.4	1.8686	0.0420	456.1	1.8646	70
75	0.0485	461.0	1.8886	0.0464	460.7	1.8844	0.0445	460.4	1.8803	0.0427	460.1	1.8764	75
80	0.0494	465.0	1.9002	0.0473	464.8	1.8960	0.0453	464.5	1.8920	0.0435	464.2	1.8881	80
85	0.0502	469.1	1.9117	0.0481	468.9	1.9075	0.0461	468.6	1.9035	0.0443	468.3	1.8996	85
90	0.0511	473.2	1.9231	0.0489	473.0	1.9190	0.0469	472.7	1.9150	0.0450	472.5	1.9111	90
95	0.0519	477.4	1.9344	0.0497	477.2	1.9303	0.0477	476.9	1.9264	0.0458	476.7	1.9225	95
100	0.0527	481.6	1.9457	0.0505	481.3	1.9416	0.0485	481.1	1.9377	0.0465	480.9	1.9338	100
105	0.0536	485.8	1.9569	0.0513	485.5	1.9528	0.0492	485.3	1.9489	0.0473	485.1	1.9451	105
110	0.0544	490.0	1.9680	0.0521	489.8	1.9639	0.0500	489.5	1.9600	0.0480	489.3	1.9562	110
115	0.0552	494.3	1.9790	0.0529	494.0	1.9750	0.0508	493.8	1.9711	0.0488	493.6	1.9673	115
120	0.0561	498.5	1.9900	0.0537	498.3	1.9859	0.0515	498.1	1.9821	0.0495	497.9	1.9783	120
125	0.0569	502.8	2.0009	0.0545	502.6	1.9969	0.0523	502.4	1.9930	0.0503	502.2	1.9892	125
130	0.0577	507.2	2.0117	0.0553	507.0	2.0077	0.0531	506.8	2.0038	0.0510	506.6	2.0001	130
135	0.0585	511.5	2.0224	0.0561	511.3	2.0184	0.0538	511.1	2.0146	0.0517	510.9	2.0109	135
140	0.0593	515.9	2.0331	0.0569	515.7	2.0291	0.0546	515.5	2.0253	0.0525	515.3	2.0216	140
145	0.0601	520.3	2.0437	0.0576	520.2	2.0398	0.0553	520.0	2.0359	0.0532	519.8	2.0322	145
150	0.0610	524.8	2.0543	0.0584	524.6	2.0503	0.0561	524.4	2.0465	0.0539	524.2	2.0428	150
155	0.0618	529.2	2.0648	0.0592	529.1	2.0608	0.0568	528.9	2.0527	0.0547	528.7	2.0533	155
160	0.0626	533.7	2.0752	0.0600	533.6	2.0713	0.0576	533.4	2.0675	0.0554	533.2	2.0638	160
165	0.0634	538.3	2.0856	0.0608	538.1	2.0816	0.0583	537.9	2.0778	0.0561	537.7	2.0742	165
170	0.0642	542.8	2.0959	0.0615	542.6	2.0920	0.0591	542.5	2.0882	0.0568	542.3	2.0845	170

Temp °C	Absolute Pressure kPa												Temp °C
	700			725			750			775			
	(24.37°C)			(25.57°C)			(26.74°C)			(27.89°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0332)	(419.7)	(1.7480)	(0.0320)	(420.2)	(1.7470)	(0.0309)	(420.7)	(1.7461)	(0.0299)	(421.2)	(1.7452)		
25	0.0333	420.2	1.7496	-	-	-	-	-	-	-	-	-	25
30	0.0341	424.0	1.7625	0.0327	423.7	1.7585	0.0315	423.3	1.7546	0.0303	422.9	1.7507	30
35	0.0349	427.9	1.7752	0.0335	427.6	1.7713	0.0322	427.2	1.7674	0.0310	426.8	1.7636	35
40	0.0357	431.8	1.7878	0.0343	431.5	1.7839	0.0330	431.1	1.7801	0.0318	430.8	1.7763	40
45	0.0365	435.8	1.8003	0.0351	435.4	1.7964	0.0337	435.1	1.7926	0.0325	434.7	1.7889	45
50	0.0373	439.7	1.8126	0.0358	439.4	1.8088	0.0345	439.1	1.8050	0.0332	438.7	1.8014	50
55	0.0380	443.7	1.8248	0.0366	443.4	1.8210	0.0352	443.1	1.8173	0.0339	442.7	1.8137	55
60	0.0388	447.7	1.8369	0.0373	447.4	1.8331	0.0359	447.1	1.8295	0.0346	446.8	1.8259	60
65	0.0396	451.7	1.8489	0.0381	451.4	1.8452	0.0367	451.1	1.8415	0.0354	450.8	1.8380	65
70	0.0403	455.8	1.8608	0.0388	455.5	1.8571	0.0374	455.2	1.8535	0.0361	454.9	1.8499	70
75	0.0411	459.9	1.8726	0.0395	459.6	1.8689	0.0381	459.3	1.8653	0.0367	459.0	1.8618	75
80	0.0418	464.0	1.8843	0.0403	463.7	1.8806	0.0388	463.4	1.8770	0.0374	463.1	1.8736	80
85	0.0426	468.1	1.8959	0.0410	467.8	1.8922	0.0395	467.6	1.8887	0.0381	467.3	1.8852	85
90	0.0433	472.2	1.9074	0.0417	472.0	1.9037	0.0402	471.7	1.9002	0.0388	471.5	1.8968	90
95	0.0440	476.4	1.9188	0.0424	476.2	1.9152	0.0409	475.9	1.9117	0.0395	475.7	1.9083	95
100	0.0448	480.6	1.9301	0.0431	480.4	1.9265	0.0416	480.1	1.9230	0.0401	479.9	1.9196	100
105	0.0455	484.8	1.9414	0.0438	484.6	1.9378	0.0423	484.4	1.9343	0.0408	484.1	1.9309	105
110	0.0462	489.1	1.9525	0.0445	488.9	1.9490	0.0430	488.6	1.9455	0.0415	488.4	1.9422	110
115	0.0469	493.4	1.9636	0.0452	493.1	1.9601	0.0436	492.9	1.9566	0.0421	492.7	1.9533	115
120	0.0477	497.7	1.9746	0.0459	497.5	1.9711	0.0443	497.2	1.9677	0.0428	497.0	1.9644	120
125	0.0484	502.0	1.9856	0.0466	501.8	1.9821	0.0450	501.6	1.9787	0.0434	501.4	1.9753	125
130	0.0491	506.4	1.9965	0.0473	506.1	1.9929	0.0457	505.9	1.9895	0.0441	505.7	1.9862	130
135	0.0498	510.7	2.0072	0.0480	510.5	2.0038	0.0463	510.3	2.0004	0.0447	510.1	1.9971	135
140	0.0505	515.1	2.0180	0.0487	514.9	2.0145	0.0470	514.7	2.0111	0.0454	514.5	2.0078	140
145	0.0512	519.6	2.0286	0.0494	519.4	2.0252	0.0477	519.2	2.0218	0.0460	519.0	2.0185	145
150	0.0519	524.0	2.0392	0.0501	523.8	2.0358	0.0483	523.6	2.0324	0.0467	523.5	2.0292	150
155	0.0526	528.5	2.0498	0.0507	528.3	2.0463	0.0490	528.1	2.0430	0.0473	528.0	2.0397	155
160	0.0533	533.0	2.0602	0.0514	532.8	2.0568	0.0496	532.7	2.0535	0.0480	532.5	2.0502	160
165	0.0540	537.6	2.0706	0.0521	537.4	2.0672	0.0503	537.2	2.0639	0.0486	537.0	2.0607	165
170	0.0547	542.1	2.0810	0.0528	541.9	2.0776	0.0509	541.8	2.0742	0.0492	541.6	2.0710	170
175	0.0554	546.7	2.0913	0.0534	546.5	2.0878	0.0516	546.4	2.0845	0.0499	546.2	2.0813	175

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	800			850			900			950			
	(29.00°C)			(31.15°C)			(33.21°C)			(35.19°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0290)	(421.7)	(1.7444)	(0.0273)	(422.6)	(1.7427)	(0.0257)	(423.4)	(1.7412)	(0.0244)	(424.2)	(1.7396)	
30	0.0292	422.5	1.7470	-	-	-	-	-	-	-	-	-	30
35	0.0299	426.4	1.7599	0.0278	425.7	1.7527	0.0260	424.9	1.7458	-	-	-	35
40	0.0306	430.4	1.7727	0.0285	429.7	1.7656	0.0267	428.9	1.7588	0.0250	428.2	1.7523	40
45	0.0313	434.4	1.7853	0.0292	433.7	1.7783	0.0273	433.0	1.7716	0.0256	432.2	1.7652	45
50	0.0320	438.4	1.7978	0.0299	437.7	1.7909	0.0280	437.0	1.7843	0.0263	436.3	1.7779	50
55	0.0327	442.4	1.8102	0.0306	441.8	1.8033	0.0286	441.1	1.7968	0.0269	440.4	1.7905	55
60	0.0334	446.5	1.8224	0.0312	445.8	1.8156	0.0293	445.2	1.8092	0.0275	444.5	1.8030	60
65	0.0341	450.5	1.8345	0.0319	449.9	1.8278	0.0299	449.3	1.8214	0.0281	448.7	1.8153	65
70	0.0348	454.6	1.8465	0.0325	454.0	1.8399	0.0305	453.4	1.8335	0.0287	452.8	1.8275	70
75	0.0355	458.7	1.8584	0.0332	458.2	1.8518	0.0311	457.6	1.8455	0.0293	457.0	1.8395	75
80	0.0362	462.9	1.8702	0.0338	462.3	1.8636	0.0317	461.7	1.8574	0.0299	461.2	1.8515	80
85	0.0368	467.0	1.8819	0.0345	466.5	1.8754	0.0323	465.9	1.8692	0.0305	465.4	1.8633	85
90	0.0375	471.2	1.8934	0.0351	470.7	1.8870	0.0329	470.1	1.8809	0.0310	469.6	1.8750	90
95	0.0381	475.4	1.9049	0.0357	474.9	1.8985	0.0335	474.4	1.8925	0.0316	473.9	1.8866	95
100	0.0388	479.6	1.9163	0.0363	479.1	1.9100	0.0341	478.6	1.9039	0.0322	478.1	1.8982	100
105	0.0394	483.9	1.9277	0.0369	483.4	1.9213	0.0347	482.9	1.9153	0.0327	482.4	1.9096	105
110	0.0401	488.2	1.9389	0.0376	487.7	1.9326	0.0353	487.2	1.9266	0.0333	486.8	1.9209	110
115	0.0407	492.5	1.9500	0.0382	492.0	1.9438	0.0359	491.6	1.9379	0.0339	491.1	1.9322	115
120	0.0414	496.8	1.9611	0.0388	496.3	1.9549	0.0365	495.9	1.9490	0.0344	495.5	1.9433	120
125	0.0420	501.1	1.9721	0.0394	500.7	1.9659	0.0370	500.3	1.9600	0.0350	499.8	1.9544	125
130	0.0426	505.5	1.9830	0.0400	505.1	1.9769	0.0376	504.7	1.9710	0.0355	504.2	1.9654	130
135	0.0433	509.9	1.9939	0.0406	509.5	1.9877	0.0382	509.1	1.9819	0.0361	508.7	1.9764	135
140	0.0439	514.3	2.0047	0.0412	513.9	1.9985	0.0388	513.5	1.9927	0.0366	513.1	1.9872	140
145	0.0445	518.8	2.0154	0.0418	518.4	2.0093	0.0393	518.0	2.0035	0.0371	517.6	1.9980	145
150	0.0452	523.3	2.0260	0.0424	522.9	2.0199	0.0399	522.5	2.0142	0.0377	522.1	2.0087	150
155	0.0458	527.8	2.0366	0.0430	527.4	2.0305	0.0405	527.0	2.0248	0.0382	526.6	2.0193	155
160	0.0464	532.3	2.0471	0.0435	531.9	2.0410	0.0410	531.6	2.0353	0.0387	531.2	2.0299	160
165	0.0470	536.8	2.0575	0.0441	536.5	2.0515	0.0416	536.1	2.0458	0.0393	535.8	2.0404	165
170	0.0476	541.4	2.0679	0.0447	541.1	2.0619	0.0421	540.7	2.0562	0.0398	540.4	2.0508	170
175	0.0482	546.0	2.0782	0.0453	545.7	2.0722	0.0427	545.3	2.0666	0.0403	545.0	2.0612	175
180	0.0489	550.6	2.0885	0.0459	550.3	2.0825	0.0432	550.0	2.0769	0.0409	549.6	2.0715	180

Temp °C	Absolute Pressure kPa												Temp °C
	1000			1100			1200			1300			
	(37.08°C)			(40.67°C)			(44.02°C)			(47.16°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0231)	(425.0)	(1.7382)	(0.0209)	(426.3)	(1.7355)	(0.0191)	(427.5)	(1.7329)	(0.0175)	(428.5)	(1.7304)	
40	0.0235	427.4	1.7459	-	-	-	-	-	-	-	-	-	40
45	0.0241	431.5	1.7589	0.0214	429.9	1.7469	0.0192	428.3	1.7355	-	-	-	45
50	0.0247	435.6	1.7718	0.0220	434.1	1.7600	0.0198	432.6	1.7488	0.0178	431.0	1.7381	50
55	0.0253	439.7	1.7844	0.0226	438.3	1.7729	0.0203	436.9	1.7619	0.0184	435.3	1.7514	55
60	0.0259	443.9	1.7970	0.0231	442.5	1.7856	0.0208	441.1	1.7748	0.0189	439.7	1.7645	60
65	0.0265	448.0	1.8094	0.0237	446.7	1.7981	0.0214	445.4	1.7875	0.0194	444.0	1.7774	65
70	0.0271	452.2	1.8216	0.0242	451.0	1.8105	0.0219	449.7	1.8001	0.0199	448.3	1.7901	70
75	0.0276	456.4	1.8337	0.0248	455.2	1.8228	0.0224	454.0	1.8124	0.0203	452.7	1.8027	75
80	0.0282	460.6	1.8457	0.0253	459.4	1.8349	0.0229	458.2	1.8247	0.0208	457.0	1.8151	80
85	0.0288	464.8	1.8576	0.0258	463.7	1.8469	0.0234	462.6	1.8368	0.0213	461.4	1.8273	85
90	0.0293	469.1	1.8694	0.0263	468.0	1.8587	0.0238	466.9	1.8488	0.0217	465.7	1.8394	90
95	0.0299	473.3	1.8810	0.0268	472.3	1.8705	0.0243	471.2	1.8606	0.0222	470.1	1.8514	95
100	0.0304	477.6	1.8926	0.0274	476.6	1.8821	0.0248	475.6	1.8724	0.0226	474.5	1.8632	100
105	0.0309	481.9	1.9041	0.0279	481.0	1.8937	0.0253	479.9	1.8840	0.0231	478.9	1.8749	105
110	0.0315	486.3	1.9155	0.0284	485.3	1.9051	0.0257	484.3	1.8956	0.0235	483.3	1.8865	110
115	0.0320	490.6	1.9267	0.0288	489.7	1.9165	0.0262	488.7	1.9070	0.0240	487.8	1.8981	115
120	0.0325	495.0	1.9379	0.0293	494.1	1.9278	0.0267	493.2	1.9183	0.0244	492.2	1.9095	120
125	0.0331	499.4	1.9491	0.0298	498.5	1.9389	0.0271	497.6	1.9296	0.0248	496.7	1.9208	125
130	0.0336	503.8	1.9601	0.0303	503.0	1.9500	0.0276	502.1	1.9407	0.0252	501.2	1.9320	130
135	0.0341	508.3	1.9710	0.0308	507.4	1.9610	0.0280	506.6	1.9518	0.0257	505.7	1.9431	135
140	0.0346	512.7	1.9819	0.0313	511.9	1.9720	0.0285	511.1	1.9628	0.0261	510.3	1.9541	140
145	0.0352	517.2	1.9927	0.0318	516.4	1.9828	0.0289	515.6	1.9737	0.0265	514.8	1.9651	145
150	0.0357	521.7	2.0034	0.0322	521.0	1.9936	0.0293	520.2	1.9845	0.0269	519.4	1.9760	150
155	0.0362	526.3	2.0141	0.0327	525.5	2.0043	0.0298	524.7	1.9952	0.0273	524.0	1.9868	155
160	0.0367	530.8	2.0247	0.0332	530.1	2.0149	0.0302	529.3	2.0059	0.0277	528.6	1.9975	160
165	0.0372	535.4	2.0352	0.0336	534.7	2.0255	0.0307	534.0	2.0165	0.0281	533.2	2.0081	165
170	0.0377	540.0	2.0456	0.0341	539.3	2.0360	0.0311	538.6	2.0270	0.0285	537.9	2.0187	170
175	0.0382	544.6	2.0560	0.0346	544.0	2.0464	0.0315	543.3	2.0375	0.0289	542.6	2.0292	175
180	0.0387	549.3	2.0664	0.0350	548.6	2.0567	0.0319	547.9	2.0479	0.0293	547.3	2.0396	180
185	0.0392	554.0	2.0766	0.0355	553.3	2.0670	0.0324	552.7	2.0582	0.0297	552.0	2.0500	185
190	0.0397	558.7	2.0868	0.0359	558.0	2.0773	0.0328	557.4	2.0685	0.0301	556.7	2.0603	190



TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	1400			1500			1600			1700			
	(50.13°C)			(52.94°C)			(55.61°C)			(58.16°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0162)	(429.4)	(1.7280)	(0.0150)	(430.2)	(1.7257)	(0.0140)	(430.9)	(1.7234)	(0.0131)	(431.5)	(1.7211)		
55	0.0167	433.8	1.7413	0.0152	432.1	1.7314	-	-	-	-	-	-	55
60	0.0172	438.2	1.7546	0.0157	436.6	1.7450	0.0144	435.0	1.7356	0.0132	433.3	1.7263	60
65	0.0177	442.6	1.7677	0.0162	441.1	1.7584	0.0149	439.6	1.7492	0.0137	438.0	1.7403	65
70	0.0181	447.0	1.7806	0.0166	445.6	1.7715	0.0153	444.1	1.7626	0.0141	442.6	1.7539	70
75	0.0186	451.4	1.7933	0.0171	450.0	1.7844	0.0157	448.7	1.7757	0.0145	447.2	1.7672	75
80	0.0190	455.8	1.8059	0.0175	454.5	1.7971	0.0162	453.2	1.7886	0.0150	451.8	1.7803	80
85	0.0195	460.2	1.8183	0.0179	458.9	1.8096	0.0166	457.7	1.8013	0.0154	456.4	1.7932	85
90	0.0199	464.6	1.8305	0.0184	463.4	1.8220	0.0170	462.2	1.8138	0.0158	461.0	1.8059	90
95	0.0204	469.0	1.8426	0.0188	467.9	1.8342	0.0174	466.7	1.8261	0.0161	465.5	1.8183	95
100	0.0208	473.4	1.8545	0.0192	472.3	1.8462	0.0178	471.2	1.8383	0.0165	470.1	1.8306	100
105	0.0212	477.9	1.8663	0.0196	476.8	1.8581	0.0182	475.7	1.8503	0.0169	474.6	1.8428	105
110	0.0216	482.3	1.8780	0.0200	481.3	1.8699	0.0185	480.3	1.8622	0.0173	479.2	1.8548	110
115	0.0220	486.8	1.8896	0.0204	485.8	1.8816	0.0189	484.8	1.8740	0.0176	483.8	1.8666	115
120	0.0225	491.3	1.9011	0.0208	490.3	1.8932	0.0193	489.4	1.8856	0.0180	488.4	1.8784	120
125	0.0229	495.8	1.9125	0.0211	494.9	1.9046	0.0197	493.9	1.8972	0.0183	493.0	1.8900	125
130	0.0233	500.3	1.9238	0.0215	499.4	1.9160	0.0200	498.5	1.9086	0.0187	497.6	1.9015	130
135	0.0237	504.9	1.9349	0.0219	504.0	1.9272	0.0204	503.1	1.9199	0.0190	502.2	1.9129	135
140	0.0240	509.4	1.9460	0.0223	508.6	1.9384	0.0207	507.7	1.9311	0.0194	506.8	1.9242	140
145	0.0244	514.0	1.9571	0.0227	513.2	1.9495	0.0211	512.3	1.9422	0.0197	511.5	1.9353	145
150	0.0248	518.6	1.9680	0.0230	517.8	1.9604	0.0214	517.0	1.9533	0.0200	516.1	1.9464	150
155	0.0252	523.2	1.9788	0.0234	522.4	1.9713	0.0218	521.6	1.9642	0.0204	520.8	1.9574	155
160	0.0256	527.8	1.9896	0.0238	527.1	1.9821	0.0221	526.3	1.9751	0.0207	525.5	1.9683	160
165	0.0260	532.5	2.0003	0.0241	531.7	1.9929	0.0225	531.0	1.9858	0.0210	530.2	1.9792	165
170	0.0264	537.2	2.0109	0.0245	536.4	2.0035	0.0228	535.7	1.9965	0.0214	535.0	1.9899	170
175	0.0267	541.9	2.0214	0.0248	541.2	2.0141	0.0232	540.4	2.0072	0.0217	539.7	2.0006	175
180	0.0271	546.6	2.0319	0.0252	545.9	2.0246	0.0235	545.2	2.0177	0.0220	544.5	2.0111	180
185	0.0275	551.3	2.0423	0.0255	550.6	2.0350	0.0238	550.0	2.0282	0.0223	549.3	2.0217	185
190	0.0279	556.1	2.0526	0.0259	555.4	2.0454	0.0242	554.8	2.0386	0.0226	554.1	2.0321	190
195	0.0282	560.9	2.0629	0.0262	560.2	2.0557	0.0245	559.6	2.0489	0.0230	558.9	2.0425	195
200	0.0286	565.7	2.0731	0.0266	565.0	2.0659	0.0248	564.4	2.0592	0.0233	563.8	2.0528	200
205	0.0290	570.5	2.0832	0.0269	569.9	2.0761	0.0251	569.3	2.0694	0.0236	568.6	2.0630	205

Temp °C	Absolute Pressure kPa												Temp °C
	1800			1900			2000			2100			
	(60.60°C)			(62.94°C)			(65.18°C)			(67.35°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0122)	(432.1)	(1.7189)	(0.0115)	(432.5)	(1.7166)	(0.0108)	(432.8)	(1.7144)	0.01022	(433.1)	(1.7121)		
65	0.0126	436.3	1.7314	0.0117	434.5	1.7226	-	-	-	-	-	-	65
70	0.0131	441.0	1.7454	0.0121	439.4	1.7369	0.0112	437.7	1.7285	0.0104	435.9	1.7201	70
75	0.0135	445.7	1.7590	0.0125	444.2	1.7508	0.0117	442.6	1.7428	0.0109	440.9	1.7347	75
80	0.0139	450.4	1.7723	0.0129	449.0	1.7644	0.0121	447.5	1.7566	0.0113	445.9	1.7489	80
85	0.0143	455.1	1.7853	0.0133	453.7	1.7777	0.0124	452.3	1.7701	0.0116	450.8	1.7627	85
90	0.0147	459.7	1.7982	0.0137	458.4	1.7907	0.0128	457.0	1.7834	0.0120	455.7	1.7761	90
95	0.0150	464.3	1.8108	0.0141	463.1	1.8035	0.0132	461.8	1.7963	0.0123	460.5	1.7893	95
100	0.0154	468.9	1.8232	0.0144	467.7	1.8161	0.0135	466.5	1.8091	0.0127	465.3	1.8022	100
105	0.0158	473.5	1.8355	0.0148	472.4	1.8285	0.0139	471.2	1.8216	0.0130	470.0	1.8149	105
110	0.0161	478.1	1.8476	0.0151	477.0	1.8407	0.0142	475.9	1.8340	0.0134	474.8	1.8274	110
115	0.0165	482.8	1.8596	0.0154	481.7	1.8528	0.0145	480.6	1.8462	0.0137	479.5	1.8397	115
120	0.0168	487.4	1.8714	0.0158	486.4	1.8647	0.0148	485.3	1.8582	0.0140	484.3	1.8519	120
125	0.0172	492.0	1.8831	0.0161	491.0	1.8765	0.0152	490.0	1.8701	0.0143	489.0	1.8639	125
130	0.0175	496.6	1.8947	0.0164	495.7	1.8882	0.0155	494.7	1.8818	0.0146	493.8	1.8757	130
135	0.0178	501.3	1.9062	0.0167	500.4	1.8997	0.0158	499.5	1.8934	0.0149	498.5	1.8874	135
140	0.0182	506.0	1.9175	0.0171	505.1	1.9111	0.0161	504.2	1.9049	0.0152	503.3	1.8990	140
145	0.0185	510.6	1.9288	0.0174	509.8	1.9224	0.0164	508.9	1.9163	0.0155	508.0	1.9104	145
150	0.0188	515.3	1.9399	0.0177	514.5	1.9336	0.0167	513.7	1.9276	0.0158	512.8	1.9218	150
155	0.0191	520.0	1.9510	0.0180	519.2	1.9447	0.0170	518.4	1.9388	0.0161	517.6	1.9330	155
160	0.0194	524.7	1.9619	0.0183	524.0	1.9558	0.0173	523.2	1.9498	0.0163	522.4	1.9441	160
165	0.0197	529.5	1.9728	0.0186	528.7	1.9667	0.0176	528.0	1.9608	0.0166	527.2	1.9551	165
170	0.0201	534.2	1.9836	0.0189	533.5	1.9775	0.0179	532.7	1.9717	0.0169	532.0	1.9661	170
175	0.0204	539.0	1.9943	0.0192	538.3	1.9883	0.0181	537.6	1.9825	0.0172	536.8	1.9769	175
180	0.0207	543.8	2.0049	0.0195	543.1	1.9989	0.0184	542.4	1.9932	0.0175	541.7	1.9877	180
185	0.0210	548.6	2.0154	0.0198	547.9	2.0095	0.0187	547.2	2.0038	0.0177	546.5	1.9983	185
190	0.0213	553.4	2.0259	0.0201	552.8	2.0200	0.0190	552.1	2.0144	0.0180	551.4	2.0089	190
195	0.0216	558.3	2.0363	0.0204	557.6	2.0305	0.0193	557.0	2.0248	0.0183	556.3	2.0194	195
200	0.0219	563.1	2.0467	0.0206	562.5	2.0408	0.0195	561.9	2.0352	0.0185	561.2	2.0299	200
205	0.0222	568.0	2.0569	0.0209	567.4	2.0511	0.0198	566.8	2.0456	0.0188	566.1	2.0402	205
210	0.0225	572.9	2.0671	0.0212	572.3	2.0613	0.0201	571.7	2.0558	0.0190	571.1	2.0505	210
215	0.0228	577.8	2.0772	0.0215	577.2	2.0715	0.0203	576.7	2.0660	0.0193	576.1	2.0607	215

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	2200			2300			2400			2500			
	(69.43°C)			(71.44°C)			(73.39°C)			(75.28°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0097)	(433.3)	(1.7098)	(0.0091)	(433.5)	(1.7075)	(0.0087)	(433.5)	(1.7051)	(0.0082)	(433.5)	(1.7027)		
70	0.0097	433.9	1.7116	-	-	-	-	-	-	-	-	-	70
75	0.0101	439.2	1.7267	0.0094	437.3	1.7185	0.0088	435.3	1.7102	-	-	-	75
80	0.0105	444.3	1.7412	0.0098	442.6	1.7335	0.0092	440.8	1.7258	0.0086	438.9	1.7179	80
85	0.0109	449.3	1.7553	0.0102	447.7	1.7480	0.0096	446.1	1.7406	0.0090	444.3	1.7332	85
90	0.0113	454.2	1.7690	0.0106	452.8	1.7620	0.0100	451.2	1.7549	0.0094	449.6	1.7479	90
95	0.0116	459.1	1.7824	0.0109	457.7	1.7756	0.0103	456.3	1.7688	0.0097	454.8	1.7621	95
100	0.0119	464.0	1.7955	0.0113	462.7	1.7889	0.0106	461.3	1.7824	0.0100	460.0	1.7759	100
105	0.0123	468.8	1.8084	0.0116	467.6	1.8020	0.0109	466.3	1.7956	0.0104	465.0	1.7894	105
110	0.0126	473.6	1.8210	0.0119	472.5	1.8148	0.0113	471.3	1.8086	0.0107	470.0	1.8025	110
115	0.0129	478.4	1.8335	0.0122	477.3	1.8273	0.0116	476.2	1.8213	0.0110	475.0	1.8154	115
120	0.0132	483.2	1.8457	0.0125	482.2	1.8397	0.0119	481.1	1.8338	0.0113	479.9	1.8281	120
125	0.0135	488.0	1.8578	0.0128	487.0	1.8519	0.0121	485.9	1.8461	0.0115	484.9	1.8405	125
130	0.0138	492.8	1.8697	0.0131	491.8	1.8639	0.0124	490.8	1.8583	0.0118	489.8	1.8527	130
135	0.0141	497.6	1.8815	0.0134	496.6	1.8758	0.0127	495.6	1.8703	0.0121	494.7	1.8648	135
140	0.0144	502.4	1.8932	0.0137	501.4	1.8876	0.0130	500.5	1.8821	0.0124	499.6	1.8767	140
145	0.0147	507.2	1.9047	0.0139	506.3	1.8992	0.0132	505.4	1.8938	0.0126	504.4	1.8885	145
150	0.0150	512.0	1.9161	0.0142	511.1	1.9106	0.0135	510.2	1.9053	0.0129	509.3	1.9001	150
155	0.0152	516.8	1.9274	0.0145	515.9	1.9220	0.0138	515.1	1.9167	0.0131	514.2	1.9116	155
160	0.0155	521.6	1.9386	0.0147	520.8	1.9332	0.0140	520.0	1.9280	0.0134	519.1	1.9230	160
165	0.0158	526.4	1.9497	0.0150	525.6	1.9444	0.0143	524.8	1.9392	0.0136	524.0	1.9342	165
170	0.0160	531.2	1.9606	0.0153	530.5	1.9554	0.0145	529.7	1.9503	0.0139	528.9	1.9454	170
175	0.0163	536.1	1.9715	0.0155	535.4	1.9663	0.0148	534.6	1.9613	0.0141	533.9	1.9564	175
180	0.0166	541.0	1.9823	0.0158	540.2	1.9772	0.0150	539.5	1.9722	0.0144	538.8	1.9673	180
185	0.0168	545.8	1.9930	0.0160	545.1	1.9879	0.0153	544.4	1.9830	0.0146	543.7	1.9782	185
190	0.0171	550.7	2.0037	0.0163	550.1	1.9986	0.0155	549.4	1.9937	0.0148	548.7	1.9889	190
195	0.0173	555.6	2.0142	0.0165	555.0	2.0092	0.0158	554.3	2.0043	0.0151	553.7	1.9996	195
200	0.0176	560.6	2.0247	0.0168	559.9	2.0197	0.0160	559.3	2.0149	0.0153	558.6	2.0102	200
205	0.0179	565.5	2.0351	0.0170	564.9	2.0301	0.0162	564.3	2.0253	0.0155	563.6	2.0207	205
210	0.0181	570.5	2.0454	0.0173	569.9	2.0405	0.0165	569.3	2.0357	0.0158	568.6	2.0311	210
215	0.0184	575.5	2.0556	0.0175	574.9	2.0507	0.0167	574.3	2.0460	0.0160	573.7	2.0414	215
220	0.0186	580.5	2.0658	0.0177	579.9	2.0610	0.0169	579.3	2.0563	0.0162	578.7	2.0517	220

Temp °C	Absolute Pressure kPa												Temp °C
	2600			2700			2800			2900			
	(77.11°C)			(78.89°C)			(80.61°C)			(82.29°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0078)	(433.5)	(1.7002)	(0.0074)	(433.3)	(1.6976)	(0.0071)	(433.1)	(1.6950)	(0.0067)	(432.9)	(1.6923)		
80	0.0081	436.9	1.7098	0.0075	434.7	1.7015	-	-	-	-	-	-	80
85	0.0085	442.5	1.7257	0.0079	440.6	1.7181	0.0075	438.6	1.7103	0.0070	436.4	1.7021	85
90	0.0088	448.0	1.7409	0.0083	446.3	1.7337	0.0078	444.4	1.7265	0.0074	442.5	1.7191	90
95	0.0092	453.3	1.7554	0.0087	451.7	1.7487	0.0082	450.1	1.7419	0.0077	448.3	1.7351	95
100	0.0095	458.5	1.7695	0.0090	457.1	1.7631	0.0085	455.5	1.7567	0.0081	454.0	1.7502	100
105	0.0098	463.7	1.7832	0.0093	462.3	1.7770	0.0088	460.9	1.7709	0.0084	459.4	1.7647	105
110	0.0101	468.8	1.7965	0.0096	467.5	1.7906	0.0091	466.1	1.7847	0.0087	464.8	1.7788	110
115	0.0104	473.8	1.8096	0.0099	472.6	1.8038	0.0094	471.3	1.7981	0.0090	470.0	1.7925	115
120	0.0107	478.8	1.8224	0.0102	477.6	1.8168	0.0097	476.5	1.8112	0.0093	475.3	1.8058	120
125	0.0110	483.8	1.8349	0.0105	482.7	1.8295	0.0100	481.5	1.8241	0.0095	480.4	1.8188	125
130	0.0113	488.7	1.8473	0.0107	487.7	1.8420	0.0102	486.6	1.8367	0.0098	485.5	1.8315	130
135	0.0115	493.7	1.8595	0.0110	492.7	1.8543	0.0105	491.6	1.8491	0.0100	490.6	1.8441	135
140	0.0118	498.6	1.8715	0.0112	497.6	1.8664	0.0107	496.7	1.8613	0.0103	495.7	1.8564	140
145	0.0120	503.5	1.8833	0.0115	502.6	1.8783	0.0110	501.7	1.8734	0.0105	500.7	1.8685	145
150	0.0123	508.5	1.8950	0.0117	507.6	1.8901	0.0112	506.7	1.8852	0.0108	505.7	1.8805	150
155	0.0125	513.4	1.9066	0.0120	512.5	1.9017	0.0115	511.6	1.8970	0.0110	510.8	1.8923	155
160	0.0128	518.3	1.9180	0.0122	517.5	1.9132	0.0117	516.6	1.9085	0.0112	515.8	1.9039	160
165	0.0130	523.2	1.9294	0.0125	522.4	1.9246	0.0119	521.6	1.9200	0.0115	520.8	1.9154	165
170	0.0133	528.2	1.9406	0.0127	527.4	1.9359	0.0122	526.6	1.9313	0.0117	525.8	1.9268	170
175	0.0135	533.1	1.9516	0.0129	532.4	1.9470	0.0124	531.6	1.9425	0.0119	530.8	1.9381	175
180	0.0137	538.1	1.9626	0.0132	537.3	1.9580	0.0126	536.6	1.9536	0.0121	535.8	1.9492	180
185	0.0140	543.0	1.9735	0.0134	542.3	1.9690	0.0128	541.6	1.9646	0.0123	540.9	1.9602	185
190	0.0142	548.0	1.9843	0.0136	547.3	1.9798	0.0131	546.6	1.9754	0.0125	545.9	1.9712	190
195	0.0144	553.0	1.9950	0.0138	552.3	1.9906	0.0133	551.6	1.9862	0.0128	551.0	1.9820	195
200	0.0146	558.0	2.0056	0.0140	557.3	2.0012	0.0135	556.7	1.9969	0.0130	556.0	1.9927	200
205	0.0149	563.0	2.0162	0.0143	562.4	2.0118	0.0137	561.7	2.0075	0.0132	561.1	2.0034	205
210	0.0151	568.0	2.0266	0.0145	567.4	2.0223	0.0139	566.8	2.0181	0.0134	566.1	2.0139	210
215	0.0153	573.1	2.0370	0.0147	572.4	2.0327	0.0141	571.8	2.0285	0.0136	571.2	2.0244	215
220	0.0155	578.1	2.0473	0.0149	577.5	2.0430	0.0143	576.9	2.0389	0.0138	576.3	2.0348	220
225	0.0157	583.2	2.0575	0.0151	582.6	2.0533	0.0145	582.0	2.0491	0.0140	581.4	2.0451	225
230	0.0160	588.3	2.0677	0.0153	587.7	2.0635	0.0147	587.1	2.0594	0.0142	586.6	2.0554	230

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables

V = Volume in m<sup>3</sup>/kg      H = Enthalpy in kJ/kg      S = Entropy in kJ/kg.K      Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	3000			3100			3200			3300			
	(83.92°C)			(85.52°C)			(87.07°C)			(88.58°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0064)	(432.5)	(1.6895)	(0.0061)	(432.1)	(1.6866)	(0.0058)	(431.6)	(1.6836)	(0.0056)	(431.0)	(1.6804)		
85	0.0065	434.0	1.6936	-	-	-	-	-	-	-	-	-	85
90	0.0069	440.5	1.7115	0.0065	438.3	1.7036	0.0061	435.9	1.6954	0.0057	433.2	1.6865	90
95	0.0073	446.5	1.7281	0.0069	444.6	1.7210	0.0065	442.6	1.7136	0.0061	440.4	1.7060	95
100	0.0077	452.3	1.7437	0.0073	450.6	1.7371	0.0069	448.8	1.7304	0.0065	446.9	1.7236	100
105	0.0080	457.9	1.7586	0.0076	456.3	1.7524	0.0072	454.7	1.7462	0.0068	453.0	1.7399	105
110	0.0083	463.4	1.7729	0.0079	461.9	1.7671	0.0075	460.4	1.7612	0.0072	458.9	1.7553	110
115	0.0086	468.7	1.7868	0.0082	467.4	1.7812	0.0078	466.0	1.7756	0.0074	464.6	1.7700	115
120	0.0088	474.0	1.8003	0.0084	472.8	1.7950	0.0081	471.5	1.7896	0.0077	470.2	1.7842	120
125	0.0091	479.2	1.8135	0.0087	478.1	1.8083	0.0083	476.8	1.8032	0.0080	475.6	1.7980	125
130	0.0094	484.4	1.8264	0.0090	483.3	1.8214	0.0086	482.1	1.8164	0.0082	481.0	1.8114	130
135	0.0096	489.6	1.8391	0.0092	488.5	1.8342	0.0088	487.4	1.8293	0.0085	486.3	1.8245	135
140	0.0099	494.7	1.8515	0.0094	493.6	1.8467	0.0091	492.6	1.8420	0.0087	491.6	1.8373	140
145	0.0101	499.7	1.8638	0.0097	498.8	1.8591	0.0093	497.8	1.8545	0.0089	496.8	1.8499	145
150	0.0103	504.8	1.8758	0.0099	503.9	1.8712	0.0095	502.9	1.8667	0.0092	502.0	1.8622	150
155	0.0106	509.9	1.8877	0.0101	509.0	1.8832	0.0098	508.1	1.8788	0.0094	507.2	1.8744	155
160	0.0108	514.9	1.8994	0.0104	514.1	1.8950	0.0100	513.2	1.8906	0.0096	512.3	1.8864	160
165	0.0110	520.0	1.9110	0.0106	519.1	1.9066	0.0102	518.3	1.9024	0.0098	517.5	1.8982	165
170	0.0112	525.0	1.9224	0.0108	524.2	1.9181	0.0104	523.4	1.9139	0.0100	522.6	1.9098	170
175	0.0114	530.1	1.9338	0.0110	529.3	1.9295	0.0106	528.5	1.9254	0.0102	527.7	1.9213	175
180	0.0116	535.1	1.9449	0.0112	534.3	1.9408	0.0108	533.6	1.9367	0.0104	532.8	1.9327	180
185	0.0119	540.2	1.9560	0.0114	539.4	1.9519	0.0110	538.7	1.9479	0.0106	538.0	1.9439	185
190	0.0121	545.2	1.9670	0.0116	544.5	1.9629	0.0112	543.8	1.9589	0.0108	543.1	1.9550	190
195	0.0123	550.3	1.9779	0.0118	549.6	1.9738	0.0114	548.9	1.9699	0.0110	548.2	1.9660	195
200	0.0125	555.3	1.9887	0.0120	554.7	1.9847	0.0116	554.0	1.9808	0.0112	553.3	1.9769	200
205	0.0127	560.4	1.9993	0.0122	559.8	1.9954	0.0118	559.1	1.9915	0.0114	558.5	1.9877	205
210	0.0129	565.5	2.0099	0.0124	564.9	2.0060	0.0120	564.3	2.0022	0.0116	563.6	1.9984	210
215	0.0131	570.6	2.0204	0.0126	570.0	2.0166	0.0122	569.4	2.0128	0.0118	568.8	2.0091	215
220	0.0133	575.7	2.0309	0.0128	575.1	2.0270	0.0124	574.5	2.0233	0.0119	573.9	2.0196	220
225	0.0135	580.9	2.0412	0.0130	580.3	2.0374	0.0125	579.7	2.0337	0.0121	579.1	2.0300	225
230	0.0137	586.0	2.0515	0.0132	585.4	2.0477	0.0127	584.9	2.0440	0.0123	584.3	2.0404	230
235	0.0138	591.2	2.0617	0.0134	590.6	2.0579	0.0129	590.1	2.0542	0.0125	589.5	2.0507	235

Temp °C	Absolute Pressure kPa												Temp °C
	3400			3500			3600			3700			
	(90.06°C)			(91.5°C)			(92.91°C)			(94.29°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0053)	(430.4)	(1.6772)	(0.0051)	(429.6)	(1.6737)	(0.0048)	(428.8)	(1.6700)	(0.0046)	(427.8)	(1.6661)		
95	0.0058	438.0	1.6980	0.0054	435.5	1.6895	0.0051	432.6	1.6803	0.0047	429.3	1.6700	95
100	0.0062	444.9	1.7165	0.0058	442.8	1.7092	0.0055	440.5	1.7016	0.0052	438.0	1.6935	100
105	0.0065	451.3	1.7334	0.0062	449.4	1.7269	0.0059	447.5	1.7201	0.0056	445.4	1.7132	105
110	0.0068	457.3	1.7493	0.0065	455.7	1.7433	0.0062	453.9	1.7371	0.0059	452.1	1.7309	110
115	0.0071	463.1	1.7644	0.0068	461.6	1.7587	0.0065	460.1	1.7530	0.0062	458.5	1.7473	115
120	0.0074	468.8	1.7789	0.0071	467.4	1.7735	0.0068	466.0	1.7682	0.0065	464.5	1.7628	120
125	0.0076	474.4	1.7929	0.0073	473.1	1.7878	0.0070	471.7	1.7827	0.0068	470.4	1.7776	125
130	0.0079	479.8	1.8065	0.0076	478.6	1.8016	0.0073	477.4	1.7967	0.0070	476.1	1.7918	130
135	0.0081	485.2	1.8197	0.0078	484.0	1.8150	0.0075	482.9	1.8103	0.0072	481.7	1.8056	135
140	0.0084	490.5	1.8327	0.0081	489.4	1.8281	0.0078	488.3	1.8236	0.0075	487.2	1.8190	140
145	0.0086	495.8	1.8454	0.0083	494.8	1.8409	0.0080	493.7	1.8365	0.0077	492.7	1.8321	145
150	0.0088	501.0	1.8578	0.0085	500.0	1.8535	0.0082	499.1	1.8492	0.0079	498.1	1.8449	150
155	0.0090	506.2	1.8701	0.0087	505.3	1.8658	0.0084	504.4	1.8616	0.0081	503.4	1.8575	155
160	0.0093	511.4	1.8821	0.0089	510.5	1.8780	0.0086	509.6	1.8739	0.0083	508.7	1.8698	160
165	0.0095	516.6	1.8940	0.0091	515.7	1.8899	0.0088	514.9	1.8859	0.0085	514.0	1.8820	165
170	0.0097	521.8	1.9057	0.0093	520.9	1.9017	0.0090	520.1	1.8978	0.0087	519.3	1.8939	170
175	0.0099	526.9	1.9173	0.0095	526.1	1.9134	0.0092	525.3	1.9095	0.0089	524.5	1.9057	175
180	0.0101	532.1	1.9287	0.0097	531.3	1.9249	0.0094	530.5	1.9210	0.0091	529.8	1.9173	180
185	0.0103	537.2	1.9400	0.0099	536.5	1.9362	0.0096	535.7	1.9325	0.0093	535.0	1.9288	185
190	0.0104	542.4	1.9512	0.0101	541.7	1.9474	0.0098	540.9	1.9437	0.0095	540.2	1.9401	190
195	0.0106	547.5	1.9622	0.0103	546.8	1.9585	0.0099	546.1	1.9549	0.0096	545.4	1.9513	195
200	0.0108	552.7	1.9732	0.0105	552.0	1.9695	0.0101	551.3	1.9659	0.0098	550.6	1.9624	200
205	0.0110	557.8	1.9840	0.0106	557.2	1.9804	0.0103	556.5	1.9769	0.0100	555.9	1.9734	205
210	0.0112	563.0	1.9948	0.0108	562.4	1.9912	0.0105	561.7	1.9877	0.0102	561.1	1.9842	210
215	0.0114	568.2	2.0054	0.0110	567.5	2.0019	0.0107	566.9	1.9984	0.0103	566.3	1.9950	215
220	0.0115	573.3	2.0160	0.0112	572.7	2.0125	0.0108	572.1	2.0090	0.0105	571.5	2.0056	220
225	0.0117	578.5	2.0265	0.0113	578.0	2.0230	0.0110	577.4	2.0196	0.0107	576.8	2.0162	225
230	0.0119	583.7	2.0369	0.0115	583.2	2.0334	0.0112	582.6	2.0300	0.0108	582.0	2.0267	230
235	0.0121	589.0	2.0472	0.0117	588.4	2.0437	0.0113	587.8	2.0404	0.0110	587.3	2.0371	235
240	0.0122	594.2	2.0574	0.0119	593.6	2.0540	0.0115	593.1	2.0507	0.0112	592.6	2.0474	240
245	0.0124	599.4	2.0676	0.0120	598.9	2.0642	0.0117	598.4	2.0609	0.0113	597.8	2.0576	245

TABLE 2 (continued)

Suva® MP66 (R-401B) Superheated Vapour - Constant Pressure Tables


V = Volume in m<sup>3</sup>/kg

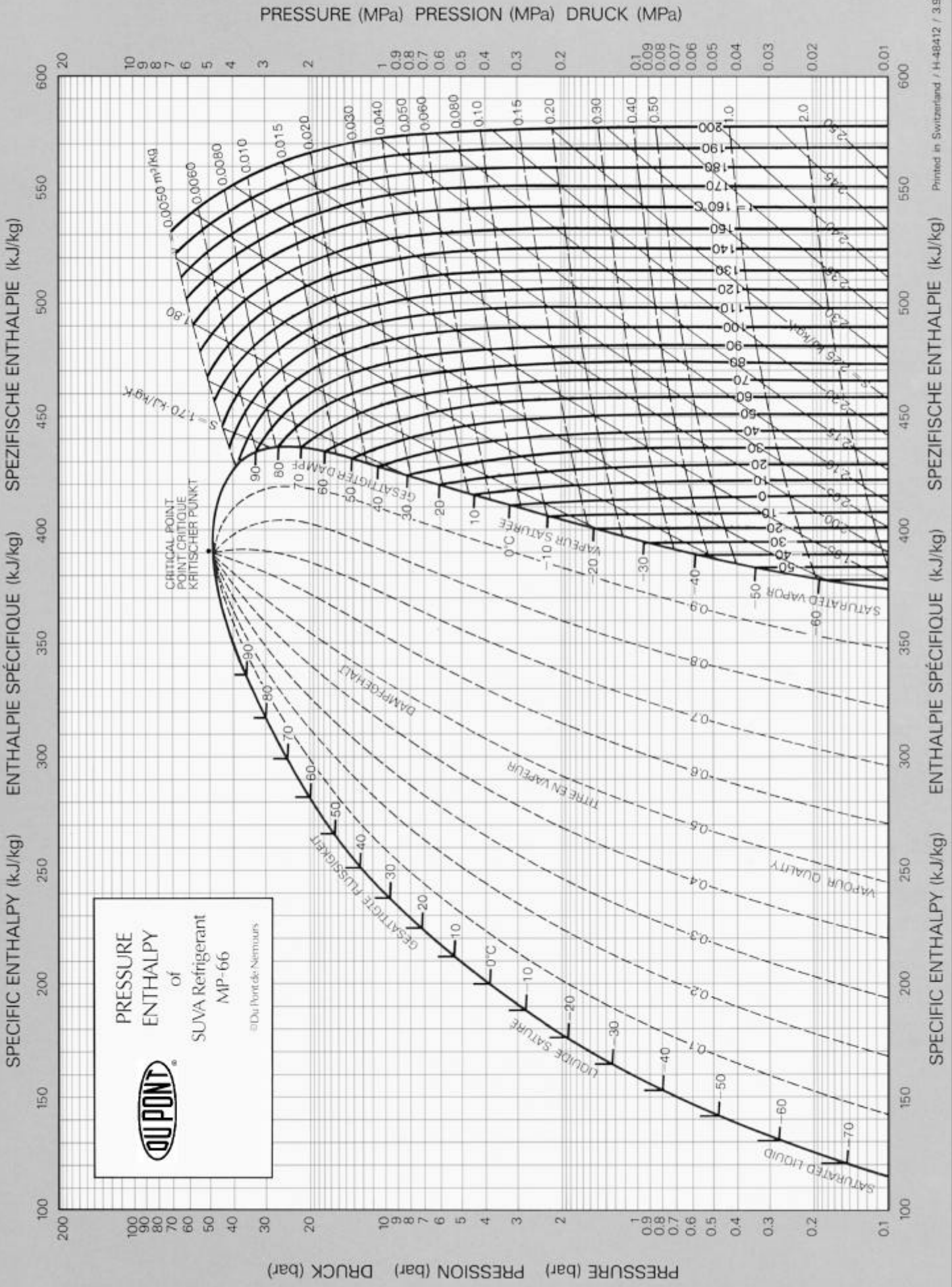
H = Enthalpy in kJ/kg

S = Entropy in kJ/kg.K

Saturation Properties in ( )

Temp °C	Absolute Pressure kPa												Temp °C
	3800			3900			4000			()			
	(95.63°C)			(96.95°C)			(98.23°C)			()			
	V	H	S	V	H	S	V	H	S	V	H	S	
(0.0044)	(426.7)	(1.6620)	(0.0042)	(425.5)	(1.6576)	(0.0040)	(424.1)	(1.6527)	( )	( )	( )	( )	
100	0.0049	435.2	1.6848	0.0045	432.1	1.6753	0.0042	428.5	1.6645				100
105	0.0053	443.2	1.7059	0.0050	440.8	1.6983	0.0047	438.2	1.6902				105
110	0.0056	450.3	1.7244	0.0054	448.3	1.7178	0.0051	446.2	1.7110				110
115	0.0059	456.8	1.7414	0.0057	455.1	1.7355	0.0054	453.3	1.7294				115
120	0.0062	463.0	1.7573	0.0060	461.5	1.7518	0.0057	459.9	1.7463				120
125	0.0065	469.0	1.7724	0.0062	467.6	1.7673	0.0060	466.1	1.7621				125
130	0.0067	474.8	1.7869	0.0065	473.5	1.7821	0.0062	472.2	1.7772				130
135	0.0070	480.5	1.8010	0.0067	479.3	1.7963	0.0065	478.1	1.7917				135
140	0.0072	486.1	1.8145	0.0069	485.0	1.8101	0.0067	483.8	1.8056				140
145	0.0074	491.6	1.8278	0.0072	490.5	1.8235	0.0069	489.4	1.8192				145
150	0.0076	497.1	1.8407	0.0074	496.0	1.8366	0.0071	495.0	1.8324				150
155	0.0078	502.5	1.8534	0.0076	501.5	1.8493	0.0073	500.5	1.8453				155
160	0.0080	507.8	1.8658	0.0078	506.9	1.8619	0.0075	506.0	1.8580				160
165	0.0082	513.1	1.8781	0.0080	512.2	1.8742	0.0077	511.4	1.8704				165
170	0.0084	518.4	1.8901	0.0082	517.6	1.8863	0.0079	516.7	1.8826				170
175	0.0086	523.7	1.9019	0.0083	522.9	1.8982	0.0081	522.1	1.8946				175
180	0.0088	529.0	1.9136	0.0085	528.2	1.9100	0.0083	527.4	1.9064				180
185	0.0090	534.2	1.9251	0.0087	533.5	1.9216	0.0084	532.7	1.9180				185
190	0.0092	539.5	1.9365	0.0089	538.8	1.9330	0.0086	538.0	1.9295				190
195	0.0093	544.7	1.9478	0.0091	544.0	1.9443	0.0088	543.3	1.9409				195
200	0.0095	550.0	1.9589	0.0092	549.3	1.9555	0.0090	548.6	1.9521				200
205	0.0097	555.2	1.9699	0.0094	554.5	1.9665	0.0091	553.9	1.9632				205
210	0.0099	560.4	1.9808	0.0096	559.8	1.9775	0.0093	559.2	1.9742				210
215	0.0100	565.7	1.9916	0.0097	565.1	1.9883	0.0094	564.4	1.9851				215
220	0.0102	570.9	2.0023	0.0099	570.3	1.9991	0.0096	569.7	1.9959				220
225	0.0103	576.2	2.0129	0.0101	575.6	2.0097	0.0098	575.0	2.0065				225
230	0.0105	581.5	2.0234	0.0102	580.9	2.0202	0.0099	580.3	2.0171				230
235	0.0107	586.7	2.0339	0.0104	586.2	2.0307	0.0101	585.6	2.0276				235
240	0.0108	592.0	2.0442	0.0105	591.5	2.0411	0.0102	590.9	2.0380				240
245	0.0110	597.3	2.0545	0.0107	596.8	2.0514	0.0104	596.3	2.0483				245
250	0.0111	602.6	2.0647	0.0108	602.1	2.0616	0.0105	601.6	2.0585				250

  
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 of  
**SUVA Refrigerant MP-66**  
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