

# DuPont™ ISCEON® 9 Series

## REFRIGERANTS

### Pressure-Temperature Guide – SI

**Superheat – Saturated Vapor Pressures**

Typical PH Diagram Superheat-Reference Point

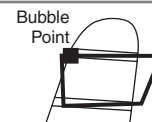


**Dew Point — Saturated Vapor (kPa – abs)**

Temp. °C	ISCEON® MO29 R-422D	ISCEON® 39TC® R-423A	ISCEON® MO49 R-413A	ISCEON® MO59 R-417A	ISCEON® MO79 R-422A	ISCEON® MO89	Temp °F
-40	93	45	56	76	123	165	-40
-39	98	48	59	80	129	172	-38
-38	103	50	62	84	135	180	-36
-37	108	53	66	88	141	188	-35
-36	113	56	69	93	148	196	-33
-35	119	59	73	97	155	205	-31
-34	125	62	76	102	162	214	-29
-33	131	65	80	107	169	223	-27
-32	137	68	84	112	177	232	-26
-31	143	71	88	117	184	242	-24
-30	150	75	93	123	193	252	-22
-29	156	79	97	129	201	263	-20
-28	163	82	102	135	210	273	-18
-27	171	86	106	141	218	284	-17
-26	178	90	111	147	228	296	-15
-25	186	95	117	154	237	307	-13
-24	194	99	122	161	247	319	-11
-23	203	104	127	168	257	332	-9
-22	211	108	133	175	267	344	-8
-21	220	113	139	183	278	358	-6
-20	229	118	145	190	289	371	-4
-19	239	123	152	198	300	385	-2
-18	248	129	158	207	312	399	0
-17	258	134	165	215	324	414	1
-16	269	140	172	224	336	429	3
-15	280	146	179	233	349	444	5
-14	291	152	187	243	362	460	7
-13	302	159	194	252	376	477	9
-12	314	165	202	262	390	493	10
-11	326	172	210	273	404	510	12
-10	338	179	219	283	418	528	14
-9	351	186	228	294	433	546	16
-8	364	194	237	306	449	565	18
-7	377	201	246	317	465	584	19
-6	391	209	255	329	481	603	21
-5	405	217	265	341	498	623	23
-4	420	226	275	354	515	643	25
-3	435	234	286	367	532	664	27
-2	450	243	296	380	550	686	28
-1	466	252	307	394	569	708	30
0	482	262	319	408	587	730	32
1	499	271	330	422	607	753	34
2	516	281	342	437	627	777	36
3	533	291	355	452	647	801	37
4	551	302	367	468	668	826	39
5	569	313	380	484	689	851	41
6	588	324	394	500	711	877	43
7	607	335	407	517	733	903	45
8	627	347	421	534	756	930	46
9	647	359	436	552	779	957	48
10	668	371	450	570	803	985	50

**Subcooling – Saturated Liquid Pressures**

Typical PH Diagram Subcooling-Reference Point



**Bubble Point — Saturated Liquid (kPa – abs)**

Temp. °C	ISCEON® MO29 R-422D	ISCEON® 39TC® R-423A	ISCEON® MO49 R-413A	ISCEON® MO59 R-417A	ISCEON® MO79 R-422A	ISCEON® MO89	Temp °F
10	740	380	503	640	841	1025	60
11	762	393	518	660	866	1054	62
12	784	406	535	680	892	1084	64
13	808	419	551	700	918	1114	66
14	831	433	568	721	944	1145	68
15	856	447	585	743	971	1177	70
16	880	462	603	765	999	1209	72
17	906	477	621	787	1027	1241	74
18	931	492	640	810	1056	1275	76
19	958	508	659	834	1086	1309	78
20	985	524	678	858	1116	1344	80
21	1012	540	698	882	1146	1379	82
22	1040	557	718	907	1178	1415	84
23	1069	574	739	933	1210	1452	86
24	1098	591	760	959	1242	1490	88
25	1128	609	782	985	1276	1528	90
26	1158	628	804	1012	1310	1567	92
27	1189	646	826	1040	1344	1607	94
28	1221	666	850	1068	1380	1647	96
29	1253	685	873	1097	1415	1688	98
30	1286	705	897	1126	1452	1730	100
31	1320	726	922	1156	1490	1773	102
32	1354	746	947	1187	1528	1817	104
33	1389	768	972	1218	1566	1861	106
34	1424	790	998	1250	1606	1906	108
35	1460	812	1025	1282	1646	1952	110
36	1497	835	1052	1315	1687	1999	112
37	1535	858	1080	1349	1729	2047	114
38	1573	881	1108	1383	1772	2096	116
39	1612	906	1136	1418	1815	2145	118
40	1651	930	1166	1454	1859	2196	120
41	1692	955	1196	1490	1904	2247	122
42	1733	981	1226	1527	1950	2299	124
43	1775	1007	1257	1564	1996	2352	126
44	1817	1034	1289	1603	2044	2406	128
45	1860	1061	1321	1642	2092	2461	130
46	1905	1089	1354	1681	2141	2518	132
47	1949	1117	1387	1722	2191	2575	134
48	1995	1146	1421	1763	2242	2633	136
49	2042	1176	1456	1805	2294	2692	138
50	2089	1206	1491	1847	2346	2752	140
51	2137	1236	1527	1890	2400	2813	142
52	2186	1267	1564	1934	2454	2876	144
53	2236	1299	1601	1979	2510	2939	146
54	2286	1331	1639	2025	2566	3004	148
55	2338	1364	1678	2071	2624	3070	150
56	2390	1398	1717	2118	2682	3137	133
57	2444	1432	1757	2166	2742	3205	135
58	2498	1466	1798	2215	2802	3275	136
59	2553	1502	1839	2265	2864	3346	138
60	2609	1538	1881	2315	2926	3418	140
61	2666	1574	1924	2367	2990		142
62	2724	1612	1968	2419	3055		144
63	2783	1650	2012	2472	3121		145
64	2843	1688	2057	2526	3188		147
65	2904	1728	2103	2581	3257		149



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**For Further Information: (800) 235-7882**

**[www.refrigerants.dupont.com](http://www.refrigerants.dupont.com)**

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