

Temperature Dependence of pH for Reference Buffers

The following table applies to RICCA CHEMICAL COMPANY reference standard buffers only. Buffer formulations with the same pH but different ingredients or concentrations may have different temperature dependence profiles. The pH at 25°C for our reference standard buffer line is traceable to NIST standard reference materials with a manufacturing tolerance of ± 0.01 pH unit. Tolerances and NIST traceability are not available for other temperatures.

Ricca Cat. No.	pH at 25°C	pH at other Temperatures												
		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
1489	1.00	*	*	0.95	0.98	1.00	1.00	1.02	1.02	1.02	1.04	1.05	1.07	1.07
1493	2.00	*	*	1.93	1.98	1.98	2.00	2.01	2.03	2.03	2.04	2.04	2.06	2.07
1495	3.00	*	*	2.93	2.99	2.99	3.00	3.03	3.03	3.04	3.05	3.08	3.09	3.10
1500	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06	*	*
1501	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06	*	*
1505	5.00	*	*	4.96	4.97	4.98	5.00	5.01	5.03	5.04	5.06	5.08	5.12	5.13
1510	6.00	*	*	5.97	5.99	6.00	6.00	6.00	5.99	5.99	6.00	6.01	6.01	6.02
1550	7.00	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97	*	*
1551	7.00	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97	*	*
1580	8.00	*	*	8.05	8.03	8.00	8.00	8.00	7.99	7.98	7.98	7.98	7.98	7.97
1590	9.00	*	*	9.14	9.10	9.05	9.00	8.97	8.93	8.91	8.89	8.87	8.84	8.83
1600	10.00	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	*	9.81	*	*
1601	10.00	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	*	9.81	*	*
1610	11.00	*	*	*	11.16	11.08	11.00	10.88	10.86	10.78	10.73	10.66	*	*
1615	12.00	*	*	*	12.35	12.17	11.99	11.78	11.62	11.46	*	*	*	*
1618	12.45	*	*	*	12.81	12.62	12.45	12.27	12.11	11.96	*	*	*	*
1625	13.00	*	*	*	13.38	13.20	13.01	12.89	12.74	12.56	*	*	*	*

* Not available