

Purified (Reagent) Water Specification Testing Results (Ohio Facility)

For the month of: September 2014 (H14244-H14273)

Listed below are the testing results for the purified water used in the manufacture of products at Hardy Diagnostics.

Test	Testing Frequency	Units	In-House Specification (method detection limit)	Testing Data
Minimum Resistivity* 1,3,4,5	Continuous Monitoring	Megohm cm	> 16.0	17.62
pH*	Each use	N/A	5.5 – 7.5	6.99
Total Organic Carbon 1,3,5	Monthly	μg/L	<500	103
Heavy Metals (Single) 1,3,4 (Cd, Cr, Cu, Ni, Pb and Zn)	Annually	mg/L	< 0.05	Cd – ND Cr – ND Cu – ND Ni – ND Pb – ND Zn – 0.0011
Heavy Metals (Total) 3,4	Annually	mg/L	< 0.1	0.0011
Ammonia/Organic Nitrogen ³	Monthly	mg/L	< 0.1	ND
Total Chlorine Residual 3,4	Monthly	mg/L	<0.1	ND
Maximum Bacterial Content ^{1,3,4,5}	Weekly	colony forming units (CFU) per milliliter	<10	<1
Water Quality 3,4 ratio	Annually	ratio	0.8 - 3.0	1.14
Use Test (Student t) 3	Quarterly	N/A	<u><</u> 2.78	2.0
Inhibitory Residue 4	Annually	N/A	< 15%	5.3
Maximum Silicate, SiO ₂ 3,4	Annually	mg/L	<u><</u> 0.05	ND

ND = Not Detected at or above the method detection limit.

References:

- 1. Preparation and Testing of Reagent Water in the Clinical Laboratory, C3-A4. Clinical Laboratory Standards (CLSI), Villanova, PA, 2006.
- 2. Quality Assurance for Commercially Prepared Microbiological Culture Media, M22-A3. Clinical Laboratory Standards Institute (CLSI formerly NCCLS), Villanova, PA, 2004.
- 3. Standard Methods for the Examination of Water and Wastewater, 21st ed., editors Andrew D. Eaton, Lenore S. Clesceri, et al. American Public Health Association, Washington, D.C. 2005.
- 4. Manual for the Certification of Laboratories Analyzing Drinking Water, Criteria and Procedures Quality Assurance 5th ed., Environmental Protection Agency (EPA).
- 5. USP. USP 35-NF 30, Water for Pharmaceutical Purposes <1231>. Rockville, MD: US Pharmacopeial Convention; 2012:886-907.

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^{*}Testing data is given as a monthly average.