

Purified (Reagent) Water Specification Testing Results (Ohio Facility) For the month of: May 2016 (H16122-H16152)

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	17.93
pH**	Daily	N/A	5.5 – 7.5	7.31
Total Organic Carbon 1,3,5	Monthly	µg/L	<500	169
Heavy Metals (Single) ^{1,3,4} (Cd, Cr, Cu, Ni, Pb and Zn)	Annually	mg/L	< 0.05	Cd – ND Cr – ND Cu – 0.0031 Pb – 0.0013 Ni – ND Zn – ND
Heavy Metals (Total) 3,4	Annually	mg/L	< 0.1	0.0082
Ammonia/Organic Nitrogen ³	Monthly	mg/L	< 0.1	ND
Total Chlorine Residual ^{3,4}	Monthly	mg/L	<0.1	<0.1
Maximum Bacterial Content***	Weekly	colony forming units (CFU) per milliliter	<10	<1
Water Quality ^{3,4} ratio	Annually	ratio	0.8 – 3.0	1.03
Use Test (Student <i>t</i>) ³	Quarterly	N/A	<u><</u> 2.78	<u><</u> 2.78
Inhibitory Residue ⁴	Annually	N/A	< 15%	-1.4%
Maximum Silicate, SiO ₂ ^{3,4}	Annually	mg/L	<u><</u> 0.05	ND

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

*Testing data is given as a monthly average at the water source.

**Testing data is given as a monthly average.

***Testing data is given as an average.

References:

1. Preparation and Testing of Reagent Water in the Clinical Laboratory, C3-A4. Clinical Laboratory Standards (CLSI), Villanova, PA.

2. Quality Assurance for Commercially Prepared Microbiological Culture Media, M22-A3. Clinical Laboratory Standards Institute (CLSI – formerly NCCLS), Villanova, PA.

3. American Public Health Association, Standard Methods for the Examination of Water and Wastewater, Washington, D.C.

4. Manual for the Certification of Laboratories Analyzing Drinking Water, Criteria and Procedures Quality Assurance, Environmental Protection Agency (EPA).

5. USP. USP-NF, Water for Pharmaceutical Purposes <1231>. Rockville, MD: US Pharmacopeial Convention.

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