

Purified (Reagent) Water Specification Testing Results (Ohio Facility) For the month of: July 2016 (H16183-H16213)

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	17.88
pH**	Daily	N/A	5.5 – 7.5	7.3
Total Organic Carbon 1,3,5	Monthly	μg/L	<500	ND
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	<1.0
Water Quality 3,4 ratio	Annually	ratio	0.8 – 3.0	1.03
Use Test (Student t) 3	Quarterly	N/A	<u><</u> 2.78	≤ 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.

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

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