

Purified Water Specification Testing Results (California Facility)

For the month of: May 2015 (15121-15151)

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	> 18.0	18.12
pH*	Each use	N/A	5.5 – 7.5	7.27
Total Organic Carbon ^{1,3,5}	Monthly	µg/L	<500	N/D
Heavy Metals* (Single) ^{1,3,4} (Cd, Cr, Cu, Ni, Pb and Zn)	Annually	mg/L	< 0.05	Cd – ND Cr – ND Cu – 0.00036 Pb – ND Ni –0.000066 Zn – 0.00079
Heavy Metals* (Total) ^{3,4}	Annually	mg/L	< 0.1	0.0015
Ammonia/OrganicNitrogen ³	Monthly	mg/L	< 0.1	N/D
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	<1.0
Water Quality ^{3,4} ratio	Annually	ratio	0.8 - 3.0	0.99
Use Test (Student t) ³	Quarterly	N/A	<u><</u> 2.78	<u><</u> 2.78
Inhibitory Residue ⁴	Annually	N/A	< 15%	-5.7%
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.

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.

Wendy Hadley

Wendy Hadley Manager of Quality Control

Hardy Diagnostics 1430 W. McCoy Lane Santa Maria, CA 93455 (800) 266-2222 FAX (805) 346-2760 www.hardydiagnostics.com