



ASTM® Reagent Water Specifications
 CLSI® (formerly NCCLS) Reagent Water Specifications
 USP® 30 Pharmaceutical Grade Water Standard

**UNITED STATES PHARMACOPOEIA 30 STANDARDS
 USP 30 Pharmaceutical Grade Water**

Organics <0.5 ppm TOC
 Conductivity <1.3 µS/cm at 25°C in-line measurement**
 Endotoxin by LAL
 Purified Water No specification
 WFI <0.25 EU/mL
 Bacteria (guideline only)
 Purified Water <100 cfu/mL
 WFI <10 cfu/100 mL

**from equivalent values from USP Table for Conductivity Limits as a Function of Temperature.

**AMERICAN SOCIETY FOR TESTING AND MATERIALS
 Standard Specifications for Reagent Water**

ASTM Type	I	II	III	IV
Conductivity @ 25°C (micromhos/cm)	0.056	1.0	0.25	5.0
Resistivity @ 25°C (Megohms-cm).	18	1.0	4.0	0.2
Total Silica (µg/L)	3	3	500	-
Total Organic Carbon (µg/L)	100	50	200	-
Chlorides (µg/L)	1	5	10	50
Sodium (µg/L)	1	5	10	50
pH*	-	-	-	5.0-8.0

	Type A	Type B	Type C
Max Heterotrophic Bacteria Count	10/1000 mL	10/100 mL	100/10 mL
Endotoxin, EU/mL	< 0.03	0.25	N/A

*The measurement of pH in Type I, II, and III reagent water has been eliminated because these grades of water do not contain constituents in sufficient quantity to alter pH.

**CLSI (CLINICAL LABORATORY STANDARDS INSTITUTE)*
 Clinical Laboratory Reagent Water (CLRW)**

CLSI
 Resistivity @ 25°C 10
 (megohms-cm)
 Conductivity @ 25°C 0.1
 (micromhos/cm)
 Bacterial Growth (cfu/mL) 10
 Organics <500 ppb^a
 Particulate Matter 0.22 µm Filter^a

^a This specification is a process specification, and not measured by the end-user.
 *Formerly NCCLS (National Committee for Clinical Laboratory Standards).