

Because of varying conditions, information is to be used as a guideline only.

LABORATORY WATER REQUIREMENT STANDARDS

(ACS) American Chemical Society

Specific resistance.....Not less than 0.5 megohm/cm
Silicate (as SiO₂).....Not more than 0.01 ppm
Heavy metals (e.g. Pb).....Not more than 0.01 ppm

(NCCLS) National Committee for Clinical Laboratory Standards

Characteristics	Type I	Type IIA	Type IIB	Type III
CFU/ml	< 10.00	10.0	1000	N/A
Resistivity megohms/cm	10.00	1.0	1.0	0.1
Particulate matter	0.22	N/A	N/A	N/A
Organics Act.	Carbon	N/A	N/A	N/A

(ASTM) American Society for Testing and Materials

Laboratory Grade Water				
Type	Type I	Type II	Type III	Type IV
Max. Conductivity Micromhos-cm	0.06	1.0	1.0	5.0
Minimum Resistivity Megohm/cm	16.66	1.0	1.0	0.2
pH	—	—	6.2–7.5	5. - 8.
Electronic Grade Water				
Type	E-I	E-II	E-III	E-IV
Resistivity, minimum, Megohm @ 25°C	17	10.0	1	0.1
Copper*	0.002	0.01	0.1	1.0
Chloride*	0.020	0.20	2.0	20.0
Dissolved gases*	0.010	0.10	0.5	0.5
Potassium*	0.001	0.01	0.1	1.0
SiO ₂ (total)*	0.001	0.01	0.1	1.0
Sodium*	0.001	0.01	0.1	1.0
Total solids*	0.050	0.50	5.0	50.0
Fixed solids (inorganic)*	0.010	0.10	1.0	10.0
Volatile solids (organic)*	0.04	0.40	4.0	40.0
Zinc*	0.001	0.01	0.1	1.0
Note: *mg/l				
Particle count (>1 micron), Maximum/ml	2	10	100	500
Micro-organisms, Maximum/ 100ml	1	10	100	100
Total organic carbon*	0.075	0.50	1.0	2.0
Note: *mg/l				

(USP) United States Pharmacopoeia XXI Standards		
Type	USP Purified	Water for Injection
Chloride, mg/l	2.0	2.0
Total solids, mg/l	10	10
Micro-organisms	—	—
		Maximum per 100 ml
pH	5 –7	5 -7
Sulfates, mg/l as SO ₄	5.0	4.0
Ammonia, mg/l as NH ₃	0.3	0.3
Calcium, mg/l	4.0	4.0
CO ₂ mg/l @ 25°C	5.0	5.0
Heavy Metals, mg/l as Cu	1.0	1.0
Oxidizable substances as O ₂	0.8	0.8
Pyrogens Test	—	Absent by Rabbit