

CLINICAL AND LABORATORY STANDARD INSTITUTE (CLSI)**CLINICAL LABORATORY REAGENT WATER (CLRW)**

CAP/NCCLS TYPE	I	II	III
Conductivity @ 25C (micromhos/cm)	0.1	1.0	10
Resistivity @ 25C (megohms-cm)	10	1	0.1
Silicate (mg/L SiO ₂)	0.05	0.1	1.0
pH	-	-	5 – 8
Bacterial Growth (cfu/mL)	10	1000	-
Particulate Matter	0.22 µm	N/A	N/A
Organics	AC, RO or Distillation	N/A	N/A

MEDICAL DEVICE REPROCESSING**MDRD – CSA Z314.0-13**

Bacteria (cfu/mL)	≤ 10
Endotoxin (EU/mL)	<10
Total Organic Carbon (mg/L)	< 0.5
pH	N/A
Water Hardness (ppm CaCO ₃)	< 1.0
Resistivity (megohms-cm)	> 1.0

RESISTIVITY/CONDUCTIVITY/PPM CHART

Resistivity (ohm/cm)	Conductivity (Micromho/cm)	PPM	GPG (As CaCO ₂)
18 000 000	0.056	0.0277	0.00164
15 000 000	0.067	0.0333	0.00193
10 000 000	0.100	0.0500	0.00292
8 000 000	0.125	0.0625	0.00368
5 000 000	0.200	0.100	0.00585
1 000 000	1.00	0.500	0.0292
800 000	1.25	0.625	0.0368
500 000	2.00	1.00	0.0585
100 000	10.00	5.00	0.292
50 000	20.00	10.00	0.585
8000	125	62.5	3.68
1000	1000	500	29.2
700	1430	714	41.25

At 25° Celsius

ASSOCIATION FOR ADVANCEMENT OF MEDICAL INSTRUMENTATION (AAMI)**DIALYSIS MICROBIOLOGY TESTING**

Sample Solution	Max Total Bacteria	Action Level Total Bacteria	Max Total Endotoxin	Action Level Total Endotoxin
Standard Dialysis Water	100CFU/mL	50CFU/mL	0.25EU/mL	0.125EU/mL
Standard Dialysis Fluid	100CFU/mL	50CFU/mL	0.5EU/mL	0.250EU/mL
Ultrapur Dialysis Fluid	0.1CFU/mL	N/A	0.03EU/mL	N/A

Reference:

- ISO 13959 Water for Haemodialysis and Related Therapies
- ISO 11663 Quality of Dialysis Fluid for Haemodialysis and Related Therapies
- ISO 23500 Monitoring Guidelines for Water Treatment Equipment, Distribution Systems and Dialysis Fluid

ASSOCIATION FOR ADVANCEMENT OF MEDICAL INSTRUMENTATION (AAMI)**HEMODIALYSIS WATER QUALITY (ANSI/AAMI 13959)**

CONTAMINANT	MAX VALUE (mg/L)
Aluminum	0.01
Antimony	0.006
Arsenic	0.005
Barium	0.10
Beryllium	0.0004
Cadmium	0.001
Calcium	2 (0.05 mmol/L)
Total Chlorine	0.10
Chromium	0.014
Copper	0.10
Fluoride	0.20
Lead	0.005
Magnesium	4 (0.15 mmol/L)
Mercury	0.0002
Nitrate as (N)	2.00
Potassium	8 (0.20 mmol/L)
Selenium	0.09
Silver	0.005
Sodium	70 (3.0 mmol/L)
Sulfate	100
Thallium	0.002
Zinc	0.10

HPWS SUPPORT

HPWS is a complete water treatment organization supporting all critical water applications for the Canadian market.

- High Purity has a 1-800 24/7 emergency response
- HPWS is an ISO 9001:2015 registered organization
- High Purity has a Medical Device Establishment License with Health Canada for medical water systems
- HPWS Designs, Manufactures, Installs, Services and Support all critical water systems & distribution loops



High Purity Water Services

“Providing innovative, value solutions for a safe and purified environment”