

**Test Report** NBF23-0005815-01 **Date:** 2023-06-29

Client Name: Membrane Solutions (Nan Tong) Co., Ltd.

Client Address: No.3, Hongxing East Road, NETDA Nantong City, Jiangsu, P.R. China

Sample Name: SimPure T1 Series Reverse Osmosis (RO) Water Filtration System

Sample Batch No.: **Production Date:** 

Manufacturer: Membrane Solutions Crop.

Sample other information: Model:T1-400、T1-400UV、T1-400ALK、T1-500、T1-500UV、T1-

500ALK、T1-600、T1-600UV、T1-600ALK、T1-800、T1-800UV、T1-

800ALK、T1-1000、T1-1000UV、T1-1000ALK

Above information and sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.

Date of Sample Received: 2023-06-09

2023-06-09 ~ 2023-06-29 Testing Period:

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s). Test Results(s): Please refer to next page(s).





SGS-CSTC Standards Technical Services Co., Ltd.Ningbo Branch Page 1 of 6



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**Sample Description:** 

Sample No.	SGS Sample ID	Description
10	NBF23-0005815-001	SimPure T1 Series Reverse Osmosis (RO) Water Filtration System (T1-400UV, T1-400ALK), Quantity: 2 sets

#### **Test Requested:**

Selected test(s) as requested by applicant:

Removal rates of Turbidity, Total dissolved solids (TDS), Arsenic (As), Mercury (Hg), Cadmium (Cd), Lead (Pb), Copper (Cu), Barium (Ba), Selenium (Se), Chromium-VI, Dissociate chlorine residue, Nitrate (as N), Fluoride, Chlorate (ClO<sub>3</sub><sup>-</sup>), Perfluorooctane Sulfonate, Perfluorooctanoic acid, Total coliforms at the start point of operating life.

## Test Strain(s):

Escherichia coli CICC 10389

#### **Test Method:**

Challenge Testing: Refer to NSF/ANSI 58-2020 Reverse Osmosis Drinking Water Treatment Systems & NSF/ANSI 42-2020: Drinking Water Treatment Units - Aesthetic Effects & Ministry of Health of the People's Republic of China Standards for Drinking Water Quality Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water-Reverse Osmosis Device

Turbidity, Total dissolved solids (TDS): GB/T 5750.4-2006 Standard examination methods for drinking water – Organoleptic and physical parameters

Arsenic (As), Mercury (Hg), Cadmium (Cd), Lead (Pb), Copper (Cu), Barium (Ba), Selenium (Se): USEPA 200.8 Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma- Mass Spectrometry

Chromium-VI: GB/T 5750.6-2006 Standard examination methods for drinking water – Metal Parameters Dissociate chlorine residue: GB/T 5750.11-2006 Standard examination methods for drinking water — Disinfectants parameters

Nitrate (as N), Fluoride, Chlorate (CIO<sub>3</sub><sup>-</sup>): USEPA 300.0 Determination of Inorganic Anions by Ion Chromatography

Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic acid (PFOA): Refer to USEPA 537.1 Determination of ed perfluorinated alkyl acids in drinking water by solid phase extraction and liquid chromatography/tandem mass spectrometry

Total coliforms: GB/T 5750.12-2006 Standard examination methods for drinking water-Microbiological parameters

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NBF23-0005815-01

Test Result(s): Table 1

NO	Test item(s)	Unit(s)	Test method(s)	Test result(s)			Requirement(s)	
				Influent spiked water	Effluent filtrated water	*Removal rate(s)%	Maximum effluent concentration (mg/L) NSF/ANSI 58	Client method requires removal rate
1	Turbidity	NTU	GB/T 5750.4- 2006	10.7	<0.2	>98.13	/	/
2	Total dissolved solids (TDS)	mg/L	GB/T 5750.4- 2006	798	1	99.87	/	/
3	#Nitrate (as N)	mg/L	EPA 300.0	27.530	<0.005	>99.98	10.0	≥66.66
4	#Fluoride	mg/L	EPA 300.0	8.72	0.02	99.77	1.5	≥81.25
5	Arsenic (As)	mg/L	EPA 200.8	0.3157	<0.0005	>99.84	0.010	≥96.66
6	Cadmium (Cd)	mg/L	EPA 200.8	0.0328	<0.0002	>99.39	0.005	≥83.33
7	Chromium-VI	mg/L	GB/T 5750.6- 2006	0.310	<0.004	>98.70	0.1	≥66.66
8	Lead (Pb)	mg/L	EPA 200.8	0.0148	<0.0005	>96.62	0.005	≥96.66
9	Mercury (Hg)	mg/L	EPA 200.8	0.0064	<0.0002	>96.87	0.002	≥66.66
10	Copper (Cu)	mg/L	EPA 200.8	3.008	<0.005	>99.83	1.3	≥56.66
11	Barium (Ba)	mg/L	EPA 200.8	11.109	<0.005	>99.95	2.0	≥80.00
12	Selenium(Se)	mg/L	EPA 200.8	0.128	<0.005	>96.09	0.05	≥50.00
13	#Chlorate (ClO <sub>3</sub> <sup>-</sup> )	mg/L	EPA 300.0	0.11	<0.01	>90.90	/	/
14	Total coliforms	CFU/100mL	GB/T 5750.12-2006	4.0×10 <sup>5</sup>	<1	>99.99	/	/
15	#Perfluorooctane Sulfonate (PFOS)	mg/L	EPA 537.1	0.00039	<0.00001	>97.43	0.00007	≥95.33
16	#Perfluorooctanoic acid (PFOA)	mg/L	EPA 537.1	0.00057	<0.00001	>98.24	0.00007	≥95.33

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NBF23-0005815-01

### Table 2

				Test result(s)			Requirement(s)	
NO	Test item(s)	Unit(s)	Test method(s)	Influent spiked water	Effluent filtrated water	*Removal rate(s)%	Percent reduction requirement NSF/ANSI 42	Client method requires removal rate
1	Dissociate chlorine residue	mg/L	GB/T 5750.11-2006	1.97	<0.01	>99.49	≥50.00	≥50.00

#### Remark:

- 1. \*Removal rate (%) = (test result of Influent spiked water test result of Effluent filtrated water)/ test result of Influent spiked water ×100%
- 2. The flow rate is 1.35 L/min, the test voltage is 110V
- 3. # Test items were carried out by SGS-CSTC Standards Technical Services(Shanghai) Co.,Ltd.







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NBF23-0005815-01

**Date:** 2023-06-29

## Sample photo:





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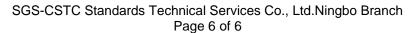
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