

# NSF Performance Data

Multipure Drinking Water Systems are tested according to NSF/ANSI Standard 42 (Aesthetic Effects) and Standard 53 (Health Effects). Multipure drinking water systems are designed to be used where the water is microbiologically safe and has been adequately disinfected. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.

## NSF/ANSI 42 - Aesthetic Effects

Multipure's Drinking Water Systems, the Aquaversa, Aquaperform and Aquadome have been tested according to NSF/ANSI Standard 42 for the reduction of the following substances. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system.

Contaminant	% of reduction	Influent Concentration	Max Allowable
CHLORAMINE	>97.5%	3.0 mg/L +/- 10%	0.5 mg/L
CHLORINE	99%	2.0 mg/L +/- 10%	> or = 50%
Particulate Class I	Class I > 99%	At Least 10,000 particles/mL	> or = 85%

## NSF/ANSI 53 - Health Effects

Multipure's Drinking Water Systems, the Aquaversa, Aquaperform and Aquadome have been tested according to NSF/ANSI Standard 53 for the reduction of the following substances. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system.

Contaminant	% of reduction	Influent Concentration	Max Allowable
ALACHLOR*	>98%	0.050	0.001
ARSENIC (pentavalent As (V); As (+5); arsenate @ 6.5 pH***)	>99.9%	0.050 +/- 10%	0.010
ARSENIC (pentavalent As (V); As (+5); arsenate @ 8.5 pH***)	>95.8%	0.050 +/- 10%	0.010
ASBESTOS	>99.9%	10 <sup>7</sup> to 10 <sup>8</sup> fibers/L; fibers greater than 10 micrometers in length	99% reduction requirement
ATRAZINE*	>97%	0.100	0.003
BENZENE*	>99%	0.081	0.001
BROMODICHLOROMETHANE (TTHM)*	>99.8%	0.300	0.015
BROMOFORM (TTHM)*	>99.8%	0.300	0.015
CARBOFURAN (Furadan)*	>99%	0.19	0.001
CARBON TETRACHLORIDE*	98%	0.078	0.0018
CHLORDANE	>99.5%	0.04 +/-10%	0.002
CHLORO BENZENE (Monochlorobenzene)*	>99%	0.077	0.001
CHLOROPICRIN*	99%	0.015	0.0002
CHLOROFORM (TTHM)* (surrogate chemical)	>99.8%	0.300	0.015
Cryptosporidium (CYST)	99.95%	minimum 50,000/L	99.95% reduction requirement
CYST (Giardia; Cryptosporidium; Entamoeba; Toxoplasma)	99.95%	minimum 50,000/L	99.95% reduction requirement
2, 4-D*	98%	0.110	0.0017

\*\*\*For Aquaperform (MP880xx) Only.

Contaminant	% of reduction	Influent Concentration	Max Allowable
DBCP (see Dibromochloropropane)*	>99%	0.052	0.00002
1,2-DCA (see 1,2-DICHLOROETHANE)*	95%	0.088	0.0048
1,1-DCE (see 1,1-DICHLOROETHYLENE)*	>99%	0.083	0.001
DIBROMOCHLOROMETHANE (TTHM; Chlorodibromomethane)*	>99.8%	0.300	0.015
DIBROMOCHLOROPROPANE (DBCP)*	>99%	0.052	0.00002
o-DICHLOROBENZENE (1,2 Dichlorobenzene)*	>99%	0.080	0.001
p-DICHLOROBENZENE (para-Dichlorobenzene)*	>98%	0.040	0.001
1,2-DICHLOROETHANE (1,2-DCA)*	95%	0.088	0.0048
1,1-DICHLOROETHYLENE (1,1-DCE)*	>99%	0.083	0.001
CIS-1,2-DICHLOROETHYLENE*	>99%	0.170	0.0005
TRANS-1,2- DICHLOROETHYLENE*	>99%	0.086	0.001
1,2-DICHLOROPROPANE (Propylene Dichloride)*	>99%	0.080	0.001
CIS-1,3- DICHLOROPROPYLENE*	>99%	0.079	0.001
DINOSEB*	99%	0.170	0.0002
EDB (see ETHYLENE DIBROMIDE)*	>99%	0.044	0.00002
ENDRIN*	99%	0.053	0.00059
Entamoeba (see CYSTS)	99.95%	minimum 50,000/L	99.95% reduction requirement
ETHYLBENZENE*	>99%	0.088	0.001
ETHYLENE DIBROMIDE (EDB)*	>99%	0.044	0.00002
Furadan (see CARBOFURAN)*	>99%	0.19	0.001
Giardia Lamblia (see CYST)	>99.95%	minimum 50,000/L	99.95% reduction requirement
HALOACETONITRILES (HAN)*			
BROMOCHLOROACETONITRILE	98%	0.022	0.0005
DIBROMOACETONITRILE	98%	0.024	0.0006
DICHLOROACETONITRILE	98%	0.0096	0.0002
TRICHLOROACETONITRILE	98%	0.015	0.0003
HALOKETONES (HK):*			
1,1-DICHLORO-2-PROPANONE	99%	0.0072	0.0001
1,1,1-TRICHLORO-2-PROPANONE	96%	0.0082	0.0003
HEPTACHLOR*	>99%	0.25	0.00001
HEPTACHLOR EPOXIDE*	98%	0.0107	0.0002
HEXACHLOROBUTADIENE (Perchlorobutadiene)*	>98%	0.044	0.001
HEXACHLOROCYCLOPENTADIENE*	>99%	0.060	0.000002
LEAD (pH 6.5)	>99.3%	0.15 +/- 10%	0.010
LEAD (pH 8.5)	>99.3%	0.15 +/- 10%	0.010
LINDANE*	>99%	0.055	0.00001
MERCURY (pH 6.5)	>99%	0.006 +/- 10%	0.002
MERCURY (pH 8.5)	>99%	0.006 +/- 10%	0.002
METHOXYCHLOR*	>99%	0.050	0.0001
Methylbenzene (see TOLUENE)*	>99%	0.078	0.001
Monochlorobenzene (see CHLOROENZENE)*	>99%	0.077	0.001
MTBE (methyl tert-butyl ether)	>96.6%	0.015 +/- 20%	0.005
POLYCHLORINATED BIPHENYLS (PCBs , Aroclor 1260)	>99.9%	0.01 +/- 10%	0.0005
PCE (see TETRACHLOROETHYLENE)*	>99%	0.081	0.001
PENTACHLOROPHENOL*	>99%	0.096	0.001
Perchlorobutadiene (see HEXACHLOROBUTADIENE)*	>98%	0.044	0.001
Propylene Dichloride (see 1,2 -DICHLOROPROPANE)*	>99%	0.080	0.001
RADON	>94.9%	4000 ± 1000 pCi/L	300 pCi/L
SIMAZINE*	>97%	0.120	0.004
Silvex (see 2,4,5-TP)*	99%	0.270	0.0016

STYRENE (Vinylbenzene)*	>99%	0.150	0.0005
1,1,1-TCA (see 1,1,1 - TRICHLOROETHANE)*	95%	0.084	0.0046
TCE (see TRICHLOROETHYLENE)*	>99%	0.180	0.0010
1,1,2,2- TETRACHLOROETHANE*	>99%	0.081	0.001
TETRACHLOROETHYLENE*	>99%	0.081	0.001
TOLUENE (Methylbenzene)*	>99%	0.078	0.001
TOXAPHENE	>92.9%	0.015 +/- 10%	0.003
Toxoplasma (see CYSTS)	99.95%	minimum 50,000/L	99.95% reduction requirement
2,4,5-TP (Silvex)*	99%	0.270	0.0016
TRIBROMOACETIC ACID*	>99%	0.042	0.001
1,2,4 TRICHLOROBENZENE (Unsymtrichlorobenzene)*	>99%	0.160	0.0005
1,1,1-TRICHLOROETHANE (1,1,1-TCA)*	95%	0.084	0.0046
1,1,2-TRICHLOROETHANE*	>99%	0.150	0.0005
TRICHLOROETHYLENE (TCE)*	>99%	0.180	0.0010
TRIHALOMETHANES (THM) (Chloroform; Bromoform; Bromodichloromethane; Dibromochloromethane)	>99.8%	0.300	0.015
TURBIDITY	>99%	11 +/- 1 NTU	0.5 NTU
Unsym-Trichlorobenzene (see 1,2,4-TRICHLOROBENZENE)*	>99%	0.160	0.0005
Vinylbenzene (see STYRENE)*	>99%	0.150	0.0005
XYLENES (TOTAL)*	>99%	0.070	0.001

## Standard 401 Incidental Contaminants / Emerging Compounds

Multipure's Drinking Water Systems, the Aquaversa and Aquadome have been tested according to NSF/ANSI 401 for reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in the NSF/ANSI 401\*\*\*\*.

Contaminant	% of reduction	Influent Concentration	Max Allowable
<b>Group I</b>			
Atenolol	>95.2%	200 ± 20%	0.00003 mg/L
Carbamazepine	>98.3%	1400 ± 20%	0.0002 mg/L
DEET	>95.5%	1401 ± 20%	0.0002 mg/L
Linuron	>96.2%	140 ± 20%	0.00002 mg/L
Meprobamate	>94.9%	400 ± 20%	0.00006 mg/L
Metolachlor	>98.5%	1400 ± 20%	0.0002 mg/L
Trimethoprim	>96.2%	140 ± 20%	0.00002 mg/L
<b>Group II</b>			
TCEP	>97.9%	5000 ± 20%	0.0007 mg/L
TCP	97.8%	5000 ± 20%	0.0007 mg/L
<b>Group III</b>			
Bisphenol A	99%	2000 ± 20%	0.0003 mg/L
Estrone	>96.4%	140 ± 20%	0.00002 mg/L
Ibuprofen	>95.2%	400 ± 20%	0.00006 mg/L
Naproxen	>96.7%	140 ± 20%	0.00002 mg/L
Nonyl phenol	>97.5%	1400 ± 20%	0.0002 mg/L
Phenytoin	>95.2%	200 ± 20%	0.00003 mg/L

## Footnotes

\*Chloroform was used as a surrogate for claims of reduction of Volatile Organic Chemicals (VOC). Multipure Systems tested at >99.8% actual reduction of Chloroform. Percent reduction shown herein reflects the allowable claims for VOCs as per tables in the Standard.\*\*Percent reduction reflects actual performance of Multipure product as specifically tested (at 200% of capacity). Percent reduction shown for VOCs reflects the allowable claims for Volatile Organic Chemicals/Compounds as per Tables. Chloroform was used as a surrogate for VOC reduction claims: the Multipure Systems' actual reduction rate of Chloroform was >99.8% as tested (at 200% of capacity). \*\*\*For Aquaperform (MP880) Only. \*\*\*\*NSF Standard 401 has been deemed as "incidental contaminants / emerging compounds". Incidental contaminants are those compounds that have been detected in drinking water suppliers at trace levels. While occurring at only trace levels these compounds can affect the public acceptance/perception of drinking water quality.

**1. Do not use with water that is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

2. Multipure Drinking Water Systems have been certified, as indicated, by NSF International for compliance to NSF/ANSI Standard Nos. 42, 53, and 401. Multipure Drinking Water Systems have been certified by the State of California Department of Public Health for the reduction of specific contaminants.

3. Filter life will vary in proportion to the amount of water used and the level of impurities in the water being processed. For optimum performance, it is essential that the filter be replaced on a regularly scheduled basis as follows: (a) annually; (b) when the unit's rated capacity has been reached; (c) the flow rate diminishes; or (d) the filter becomes saturated with bad tastes and odors.

4. For systems using the Capacity Monitor Kit, it will flash red, buzz and beep when it is time to replace the filter.

5. Do not allow water to freeze in the unit. If unit is exposed to freezing temperatures, drain water from unit and remove filter.

6. Do not allow water to sit in unit for extended periods of time (10 or more days) without being used. If unit is to be left unused for more than 10 days, drain all water from the system and remove the filters. Upon your return, reconnect the filters in the housing and continue use. In the event water does sit in the unit for 10 or more days, the system should be flushed by allowing water to flow to waste for about 10 minutes; then continue use as normal.

7. Multipure Drinking Water System housings are warranted for a Lifetime (provided that the filter be replaced at least once a year). All exterior hoses and attachments to the System are warranted for defects in material and workmanship for one year. Please see the Owner's Manual for complete product guarantee and warranty information.

8. Please see the Owner's Manual for installation instructions and operating procedures.

9. In compliance with New York law, it is recommended that before purchasing a water treatment system, NY residents have their water supply tested to determine their actual water treatment needs. Please compare the capabilities of the Multipure unit with your actual water treatment needs.

10. While testing was performed under standard laboratory conditions, actual performance may vary.

11. The list of substances which the treatment device reduces does not necessarily mean that these substances are present in your tap water.

12. Multipure's MP880 Series has been tested for the treatment of water containing pentavalent arsenic (also known as As(V), As(+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not reduce other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section for further information.



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