

# Aqualuxe NSF Performance Data

The Aqualuxe is proven performance, third-party tested and verified: NSF-certified to treat contaminants of Aesthetic Concern (Standard 42). NSF-certified to treat contaminants of Health Concern (Standard 53). NSF-certified to treat Emerging Contaminants (Standard 401). NSF-certified as a microbiological purifier (NSF P231). The Aqualuxe is powerful enough to treat the contaminants of today, tomorrow, and beyond. The Aqualuxe is filtration evolved.

## NSF/ANSI 42 - Aesthetic Effects

Multipure's Aqualuxe has 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	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
CHLORAMINE	>97.5%	3.0 +/- 10%	0.5
CHLORINE	>97.5%	2.0 ± 10%	≥ 50%
Particulate Class I	99.8%	min. 10,000 particles/mL	≥ 85%*

## NSF/ANSI 53 - Health Effects

The Aqualuxe has 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	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
ALACHLOR	>98%	0.050	0.001
ARSENIC (pH 6.5)	>97.9%	0.050 ± 10%	0.010
ARSENIC (pH 8.5)	97.6%	0.050 ± 10%	0.010
ASBESTOS	>99%	10 <sup>7</sup> to 10 <sup>8</sup> fibers/L	99%*
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%	0.040 ± 10%	0.002
CHLOROBENZENE (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	99.99%	min. 50,000/L	99.95%*
2, 4-D*	98%	0.110	0.0017
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

Contaminant	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
DIBROMOCHLOROMETHANE**	>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**	>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**	>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)	>96.6%	0.006 ± 10%	0.002
MERCURY (pH 8.5)	>96.7%	0.006 ± 10%	0.002
METHOXYCHLOR*	>99%	0.050	0.0001
Methylbenzene (see TOLUENE)**	>99%	0.078	0.001
Monochlorobenzene (see CHLOROBENZENE)**	>99%	0.077	0.001
MTBE (methyl tert-butyl ether)	97%	0.015 ± 20%	0.005
POLYCHLORINATED BIPHENYLS (PCBs , Aroclor 1260)	>99.9%	0.01 +/- 10%	0.0005
PCB	>97%	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		4000 ± 1000 pCi/L	300 pCi/L
SIMAZINE*	>97%	0.120	0.004
Silvex (see 2,4,5-TP)**	99%	0.270	0.0016

Contaminant	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
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	>95%	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 TRICHLOROENZENE (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
TRIALOMETHANES (THM) (Chloroform; Bromoform; Bromodichloromethane; Dibromochloromethane)	>99.8%	0.300	0.015
TURBIDITY	99.0%	11 ± 1 NTU	0.5 NTU
Unsym-Trichlorobenzene**	>99%	0.160	0.0005
Vinylbenzene (see STYRENE)**	>99%	0.150	0.0005
XYLENES (TOTAL)**	>99%	0.070	0.001

## Standard 401- Emerging Contaminants

The Aqualuxe has 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	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Group I			
Atenolol	>96.4%	200 ± 20%	0.00003
Carbamazepine	>98.5%	1400 ± 20%	0.0002
DEET	>98.6%	1401 ± 20%	0.0002
Linuron	>96.5%	140 ± 20%	0.00002
Meprobamate	>95.3%	400 ± 20%	0.00006
Metolachlor	>98.7%	1400 ± 20%	0.0002
Trimethoprim	>96.8%	140 ± 20%	0.00002
Group II			
TCEP (Group 2)	>98.0%	5000 ± 20%	0.0007
TCPP (Group 2)	>97.9%	5000 ± 20%	0.0007
Group III			
Bisphenol A (Group 3)	>99.0%	2000 ± 20%	0.0003
Estrone (Group 3)	>96.6%	140 ± 20%	0.00002
Ibuprofen (Group 3)	>95.1%	400 ± 20%	0.00006
Naproxen (Group 3)	>96.4%	140 ± 20%	0.00002
Nonyl phenol (Group 3)	>95.6%	1400 ± 20%	0.0002
Phenytoin (Group 3)	>95.4%	200 ± 20%	0.00003

# NSF/ANSI Protocol P231 - Viruses & Bacteria

The Aqualuxe has been tested and certified according to NSF Protocol P231 as a microbiological water purifier, able to remove the presence of viruses and bacteria from drinking water.

Contaminant	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Bacteria, R. Terrigena (ATCC-33257)	≥ 99.9999%	2.8 x 10 <sup>7</sup> /100 mL	
Virus, MS2 (ATCC-15597-B1)	≥ 99.99%	4.3 x 10 <sup>4</sup> /mL	

# NSF Protocol P473 - PFOA/PFOS

The Aqualuxe has been tested and certified according to NSF Protocol P473 for the reduction of the emerging contaminants perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) from drinking water.

Contaminant	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
PFOA/PFOS	>99.5%	0.0015 ± 10%***	0.00007

# NSF Protocol P477 - Microcystin

The Aqualuxe has been tested and certified according to NSF Protocol P477 for the reduction of microcystins (toxins produced by blue-green algae) from drinking water.

Contaminant	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Microcystin	99.5%	0.004 ± 10%	0.0003

## Footnotes

\*Reduction required. \*\*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. Incidental contaminants are those compounds that have been detected in drinking water supplies at trace levels. While occurring at only trace levels these compounds can affect the public acceptance/perception of drinking water quality. \*\*\*Added as 0.001 mg/L PFOS and 0.0005 mg/L PFOA

1. **This system is not intended to convert wastewater or raw sewage into drinking water.**
2. Multipure Drinking Water Systems have been certified, as indicated, by NSF International for compliance to NSF/ANSI Standard Nos. 42, 53, 58, 401 and Protocol P231. 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. Do not allow water to freeze in the unit. If unit is exposed to freezing temperatures, drain water from unit and remove filter.
5. 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.
6. 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.
7. Please see the Owner's Manual for installation instructions and operating procedures.
8. 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.
9. While testing was performed under standard laboratory conditions, actual performance may vary.
10. The list of substances which the treatment device reduces does not necessarily mean that these substances are present in your tap water.
11. Multipure's Aqualuxe have 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.
12. The compounds certified under NSF/ANSI 401 have been deemed as incidental contaminants/emerging compounds. Incidental contaminants are those that have been detected in drinking water supplies at trace levels. While occurring at only trace levels, these compounds can affect the public acceptance/perception of drinking water quality.
13. The system and installation to comply with state and local laws and regulations.
14. Spent adsorption media will not be regenerated and used.
15. The system conforms to NSF Protocol P477 for the specific performance claims verified and substantiated by test data.
16. The system conforms to NSF Protocol P473 for the specific performance claims verified and substantiated by test data.
17. **WARNING:** This system is for use on water supplies that have been treated to public water systems standards. This system has been tested to demonstrate effective reduction of microcystins, however, in the event of a reported cyanotoxin event in your water supply, other cyanotoxins may be present in the drinking water which may not be effectively reduced by this system. In the event of a cyanotoxin notification, follow the recommendations of your drinking water authority.



**MULTIPURE®**

7251 Cathedral Rock Drive, Las Vegas, NV 89128 • 702.360.8880 • 800.622.9206

[www.multipure.com](http://www.multipure.com)