

# 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
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 (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 (THM; 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 TRICHLOROETHYLENE (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%	11 +/- 1 NTU	0.5 NTU
Unsym-Trichlorobenzene (see 1,2,4-TRICHLOROETHYLENE)*	>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
TCPP	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

## Übersetzung der Substanzen nach NSF Standard 401

<u>Substanz</u>	<u>Erklärung</u>
<b><u>Group I</u></b>	
- Atenolol	- Betablocker
- Carbamazepine	- Anti-Epileptika
- DEET	- Insekten-Antimittel
- Linuron	- Herbizid
- Meprobamate	- Beruhigungsmittel
- Metolachlor	- Herbizid
- Trimethoprim	- Antibiotikum
<b><u>Group II</u></b>	
- TCEP	- Weichmacher
- TCPP	- Flammenschutzmittel
<b><u>Group III</u></b>	
- Bisphenol A	- Weichmacher
- Estrone	- Östrogen
- Ibuprofen	- Schmerzmittel, Entzündungs-Hemmer
- Naxopren	- Schmerzmittel, Entzündungs-Hemmer
- Nonyl phenol	- Östrogen-Wirkung, in Weichmachern, Arzneimitteln und Fungiziden
- Phenytoin	- Anti-Epileptika, Arzneimittel bei Herzrhythmusstörungen