

NSF/ANSI Standard
for Drinking Water Treatment Units –

Drinking water treatment units –
Aesthetic effects

Table 17 – Performance data sheet reduction claims

Substance	Influent challenge concentration	Maximum permissible product water concentration
chloramine ¹	3.0 mg/L ± 10%	0.5 mg/L
chloride	800 mg/L ± 10%	250 mg/L
foaming agent	5 mg/L ± 10%	0.5 mg/L
hydrogen sulfide	1.0 mg/L ± 10%	0.05 mg/L
iron	3-5 mg/L	0.3 mg/L
manganese	1-2 mg/L	0.05 mg/L
phenol	5.0 mg/L ± 10%	0.25 mg/L
sulfate	800 mg/L ± 10%	250 mg/L
total dissolved solids (TDS)	1500 mg/L ± 10%	500 mg/L
zinc	10 mg/L ± 10%	5 mg/L

¹ As monochloramine (measured as Cl₂/L)

Table 18 – Performance data sheet reduction claims

Substance	Influent challenge concentration	Reduction requirement
chlorine	2.0 mg/L ± 10%	≥ 50%
particulate, Class I particles 0.5 to <1 µm	at least 10,000 particles/mL	≥ 85%
particulate, Class II particles 1 to < 5 µm	at least 10,000 particles/mL	≥ 85%
particulate, Class III particles 5 to <15 µm	at least 10,000 particles/mL	≥ 85%
particulate, Class IV particles 15 to < 30 µm	at least 10,000 particles/mL	≥ 85%
particulate, Class V particles 30 to < 50 µm	at least 1,000 particles/mL	≥ 85%
particulate, Class VI particles 50 to < 80 µm	at least 1,000 particles/mL	≥ 85%

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Drinking water treatment units —
Health effects

Table 18 – Performance data sheet reduction claims

Substance	Influent challenge concentration mg/L	Maximum permissible product water concentration mg/L
alachlor	0.04 ± 10%	0.002
arsenic (pentavalent)	0.050 ± 10%	0.010
arsenic (pentavalent)	0.30 ± 10%	0.010
atrazine	0.009 ± 10%	0.003
barium	10 ± 10%	2
benzene	0.015 ± 10%	0.005
cadmium	0.03 ± 10%	0.005
carbofuran	0.08 ± 10%	0.04
carbon tetrachloride	0.015 ± 10%	0.005
chlordane	0.04 ± 10%	0.002
chlorobenzene	2.0 ± 10%	0.1
chromium (hexavalent)	0.3 ± 10%	0.1
chromium (trivalent)	0.3 ± 10%	0.1
chromium (hexavalent and trivalent)	0.3 ± 10%	0.05 (hexavalent) and 0.05 (trivalent)
copper	3.0 ± 10%	1.3
2,4-D	0.210 ± 10%	0.07
dibromochloropropane	0.004 ± 10%	0.0002
o-dichlorobenzene	1.8 ± 10%	0.6
p-dichlorobenzene	0.225 ± 10%	0.075
1,2-dichloroethane	0.015 ± 10%	0.005
1,1-dichloroethylene	0.021 ± 10%	0.007
cis-1,2-dichloroethylene	1.4 ± 10%	0.07
trans-1,2-dichloroethylene	2.0 ± 10%	0.1
1,2-dichloropropane	0.015 ± 10%	0.005
dinoseb	0.021 ± 10%	0.007
endrin	0.006 ± 10%	0.002
ethylbenzene	2.1 ± 10%	0.7
ethylene dibromide	0.001 ± 10%	0.00005
fluoride	8.0 ± 10%	1.5
heptachlor (H-34, heptox)	0.08 ± 10%	0.0004
heptachlor epoxide	0.004 ± 10%	0.0002

Table 18 – Performance data sheet reduction claims

Substance	Influent challenge concentration mg/L	Maximum permissible product water concentration mg/L
hexachlorocyclopentadiene	0.15 ± 10%	0.05
lead	0.15 ± 10%	0.010
lindane	0.002 ± 10%	0.0002
mercury	0.006 ± 10%	0.002
methoxychlor	0.12 ± 10%	0.04
methyl <i>tert</i> -butyl ether	0.015 ± 20%	0.005
nitrate plus nitrite	30 ± 10%	10
nitrate	27 ± 10%	10
nitrite	3 ± 10%	1
pentachlorophenol	0.01 ± 10%	0.001
perchlorate	0.100 ± 10%	0.004
polychlorinated biphenyls (PCBs, aroclor 1260)	0.01 ± 10%	0.0005
radon	4000 ± 1000 pCi/L	300 pCi/L
selenium	0.10 ± 10%	0.05
simazine	0.012 ± 10%	0.004
styrene	2.0 ± 10%	0.1
2,4,5-TP(silvex)	0.15 ± 10%	0.05
tetrachloroethylene	0.015 ± 10%	0.005
toluene	3.0 ± 10%	1
toxaphene	0.015 ± 10%	0.003
1,2,4-trichlorobenzene	0.21 ± 10%	0.07
1,1,1-trichloroethane	0.6 ± 10%	0.2
1,1,2-trichloroethane	0.015 ± 10%	0.005
trichloroethylene	0.300 ± 10%	0.005
TTHM (as chloroform)	0.45 ± 20%	0.080
xylenes	30 ± 10%	10.0
turbidity	11 ± 1 NTU	0.5 NTU

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Table 19 – Performance data sheet reduction claims for organic chemicals included by surrogate testing

Substance	Influent challenge concentration mg/L	Maximum permissible product water concentration mg/L
alachlor	0.050	0.001
atrazine	0.100	0.003
benzene	0.081	0.001
carbofuran	0.190	0.001
carbon tetrachloride	0.078	0.0018
chlorobenzene	0.077	0.001
chloropicrin	0.015	0.0002
2,4-D	0.110	0.0017
dibromochloropropane (DBCP)	0.052	0.00002

Table 19 – Performance data sheet reduction claims for organic chemicals included by surrogate testing

Substance	Influent challenge concentration mg/L	Maximum permissible product water concentration mg/L
o-dichlorobenzene	0.080	0.001
p-dichlorobenzene	0.040	0.001
1,2-dichloroethane	0.088	0.0048
1,1-dichloroethylene	0.083	0.001
cis-1,2-dichloroethylene	0.170	0.0005
trans-1,2-dichloroethylene	0.086	0.001
1,2-dichloropropane	0.080	0.001
cis-1,3-dichloropropylene	0.079	0.001
dinoseb	0.170	0.0002
endrin	0.053	0.00059
ethylbenzene	0.088	0.001
ethylene dibromide (EDB)	0.044	0.00002
haloacetonitriles (HAN):		
bromochloroacetonitrile	0.022 ¹	0.0005
dibromoacetonitrile	0.024	0.0006
dichloroacetonitrile	0.0096	0.0002
trichloroacetonitrile	0.015	0.0003
haloketones (HK):		
1,1-dichloro-2-propanone	0.0072	0.0001
1,1,1-trichloro-2-propanone	0.0082	0.0003
heptachlor	0.025	0.00001
heptachlor epoxide	0.0107	0.0002
hexachlorobutadiene	0.044	0.001
hexachlorocyclopentadiene	0.060	0.000002
lindane	0.055	0.00001
methoxychlor	0.050	0.0001
pentachlorophenol	0.096	0.001
simazine	0.120	0.004
styrene	0.150	0.0005
1,1,2,2-tetrachloroethane	0.081	0.001
tetrachloroethylene	0.081	0.001
toluene	0.078	0.001
2,4,5-TP (silvex)	0.270	0.0016
tribromoacetic acid	0.042	0.001
1,2,4-trichlorobenzene	0.160	0.0005
1,1,1-trichloroethane	0.084	0.0046
1,1,2-trichloroethane	0.150	0.0005
trichloroethylene	0.180	0.0010
trihalomethanes (includes):		
chloroform (surrogate chemical)		
bromoform	0.300	0.015
bromodichloromethane		
chlorodibromomethane		
xylenes (total)	0.070	0.001

Table 20 – Performance data sheet performance claims for percent reduction

Substance	Influent challenge concentration	Reduction requirement
asbestos	10 ⁷ to 10 ⁸ fibers/L; fibers greater than 10 µm in length	99%
cyst	minimum 50,000/L	99.95%