

NSF PERFORMANCE DATA SHEET

The **eSpring™** Water Purifier is listed with the NSF International. NSF International is an independent testing and certification agency established to set quality standards for a wide variety of home and industrial products. Many regulatory agencies, municipal water treatment officials and residential builders look for NSF International listing as certification that a product will meet high performance standards.

The following product information is presented in compliance with NSF International disclosure requirements.

eSpring Water Purifier No.: 10-0185-HK/10-0188-HK
 Replaceable Cartridge No.: 10-0186-T

The **eSpring** Water Purifier is comprised of a compressed activated carbon block filter and an ultraviolet lamp. The filter is composed of two outer nonwoven pre-filters, and a layer of immobilized activated carbon.

Substance	Influent Challenge Concentration	Reduction Requirements/ Max. Permissible Product Water Concentration	% Reduction
NSF/ANSI Standard 42 Aesthetic Effects			
Particulates-Class I (#/mL at 0.5 to <1 micron)	>10,000	>85%	>95
Chlorine Taste and Odour (mg/L as chlorine)	2±10%	≥50%	>95
Chloramine (mg/L)	3±10%	0.5	96.7
NSF/ANSI Standard 53 Health Effects			
Asbestos (fibers/mL >10 µm)	10 ⁺ - 10 ⁶	>99%	>99
Lead at pH 6.5 (µg/L)	150±10%	10	>95
Lead at pH 8.5 (µg/L)	150±10%	10	>95
Mercury at pH 6.5 (µg/L)	6.0±10%	2.0	>90
Mercury at pH 8.5 (µg/L)	6.0±10%	2.0	>90
Alachlor (µg/L)	40±10%	2.0	>95
Atrazine (µg/L)	9±10%	3.0	>90
Benzene (µg/L)	15±10%	5.0	>95
Carbofuran (µg/L)	80±10%	40	>95
Carbon Tetrachloride (µg/L)	15±10%	5.0	>95
Chlordane (µg/L)	40±10%	2.0	>95
Chlorobenzene (µg/L)	2,000±10%	100	>95
2,4-D (µg/l)	210±10%	70.0	>95
Dibromochloropropane (µg/L)	4±10%	0.20	>95
o-Dichlorobenzene (µg/L)	1,800±10%	600	>95
Endrin (µg/L)	6±10%	2.0	>95
Ethylbenzene (µg/L)	2,100±10%	700	>95
Ethylene dibromide (µg/L)	1±10%	0.05	>95
Heptachlor (µg/L)	80±10%	0.4	>95
Heptachlor epoxide (µg/L)	4±10%	0.20	>95
Lindane (µg/L)	2±10%	0.20	>95
Methyl-tert-butyl ether (MTBE) (µg/L)	15±20%	5.0	>95
Methoxychlor (µg/L)	120±10%	40.0	>95
PCBs (Aroclor 1260) (µg/L)	10±10%	0.5	>95
Radon (pCi/L)	4,000±25%	300	>95
Simazine (µg/L)	12±10%	4	>95
Styrene (µg/L)	2,000±10%	100	>95
Tetrachloroethylene (µg/L)	15±10%	5	>95
Toluene (µg/L)	3,000±10%	1,000	>95
Total Trihalomethanes			
(THMs as chloroform) (µg/L)	450±20%	80.0	>95
Toxaphene (µg/L)	15±10%	3.0	>95
2,4,5 TP (Silvex) (µg/L)	150±10%	50.0	>90
Trichloroethylene (µg/L)	300±10%	5	>95
†VOC's (µg/L) as chloroform	300±10%	95%	>95
NSF/ANSI Standard 401			
Meprobamate (ng/L)	400±20%	60	>95
Atenolol (ng/L)	200±20%	30	>95
Carbamazepine (ng/L)	1,400±20%	200	>95
DEET (ng/L)	1,400±20%	200	>95
Metolachlor (ng/L)	1,400±20%	200	>95
Trimethoprim (ng/L)	140±20%	20	>95
Linuron (ng/L)	140±20%	20	>95
TCEP (ng/L)	5,000±20%	700	>95
TCPP (ng/L)	5,000±20%	700	>95
Phenytoln (ng/L)	200±20%	30	>95
Ibuprofen (ng/L)	400±20%	60	>95
Naproxen (ng/L)	140±20%	20	>95
Estrone (ng/L)	140±20%	20	>95
Bisphenol A (ng/L)	2,000±20%	300	>95
Nonyl phenol (ng/L)	1,400±20%	200	>95

Test Conditions: pH: 7.75, Pressure: 60 psi (415 kPa), Flow Rate: 3.4 L/min

† The following table sets forth allowable claims which can be made for drinking water treatment units that have met the requirements for VOC reduction.

This water purifier is certified as a class B system in compliance with NSF/ANSI Standard 55 and is equipped with an ultraviolet (UV) lamp that requires replacement at intervals in accordance with the manufacturer's instructions. This Class B system conforms to NSF/ANSI 55 for the supplemental bactericidal treatment of disinfected public drinking water or other drinking water that has been tested and deemed acceptable for human consumption by the state or local health agency having jurisdiction. Class B systems are not intended for the treatment of contaminated water.

This water purifier has been tested according to NSF/ANSI 42, 53 and 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 NSF/ANSI 42, 53 and 401.

Organic Chemicals Included By Surrogate Testing		
Substance	Influent Challenge Level (ppb)	Maximum Effluent Level (ppb)
Alachlor	50	1.0
Atrazine	100	3.0
Benzene	81	1.0
Carbofuran	190	1.0
Carbon tetrachloride	78	1.8
Chlorobenzene	77	1.0
Chloropicrin	15	0.2
2,4-D	110	1.7
Dibromochloropropane (DBCP)	52	0.02
o-Dichlorobenzene	80	1.0
p-Dichlorobenzene	40	1.0
1,2-Dichloroethane	88	4.8
1,1-Dichloroethylene	83	1.0
cis-1,2-Dichloroethylene	170	0.5
trans-1,2-Dichloroethylene	86	1.0
1,2-Dichloropropane	80	1.0
cis-1,3-Dichloropropylene	79	1.0
Dinoseb	170	0.2
Endrin	53	0.59
Ethylbenzene	88	1.0
Ethylene dibromide (EDB)	44	0.02
Haloacetonitriles (HAN):		
bromochloroacetonitrile	22	0.5
dibromoacetonitrile	24	0.6
dichloroacetonitrile	9.6	0.2
trichloroacetonitrile	15	0.3
Haloketones (HK):		
1,1-dichloro-2-propanone	7.2	0.1
1,1,1-trichloro-2-propanone	8.2	0.3
Heptachlor	250	0.01
Heptachlor epoxide	10.7	0.2
Hexachlorobutadiene	44	1.0
Hexachlorocyclopentadiene	60	0.002
Lindane	55	0.01
Methoxychlor	50	0.1
Pentachlorophenol	96	1.0
Simazine	120	4.0
Styrene	150	0.5
1,1,2,2-Tetrachloroethane	81	1.0
Tetrachloroethylene	81	1.0
Toluene	78	1.0
2,4,5-TP (Silvex)	270	1.6
Tribromoacetic acid	42	1.0
1,2,4-Trichlorobenzene	160	0.5
1,1,1-Trichloroethane	84	4.6
1,1,2-Trichloroethane	150	0.5
Trichloroethylene	180	1.0
Trihalomethanes includes: Chloroform (surrogate chemical) Bromoform		
Bromodichloromethane Chlorodibromomethane	300	15
Xylenes (total)	70	1.0

SYSTEM Tested and Certified against NSF/ANSI Standard 42, 53 and 55

In addition, NSF International has verified the water purifier claims for this model for the reduction of specific substances which are not included in NSF/ANSI Standard 42, Standard 53 or Standard 401 as follows:

Additional Contaminants			
Chemical	% Reduction	Influent Concentration (µg/L)	Effluent Concentration (µg/L)
EPA Priority Pollutants			
Acenaphthene	>99.7	67.9	<DL
Acenaphthylene	>99.7	44.9	<DL
Aldrin	97.4	14.4	0.38
Anthracene	>99.6	0.0106	<DL
Benzidine	>99.6	2.54	<DL
Benzo[a]anthracene	>99.3	0.224	<DL
Benzo[a]pyrene	92.5	0.0605	0.00456
Benzo[b]fluoranthene	98.7	0.316	0.00416
Benzo[g,h,i]perylene	91.0	0.434	0.0390
Benzo[k]fluoranthene	98.1	0.325	0.00611
alpha-BHC	>99.6	80.6	<DL
beta-BHC	>99.6	81.4	<DL
delta-BHC	>99.6	77.8	<DL
gamma-BHC	>99.6	80.9	<DL
Bis(2-Chloroethoxy) methane	>99.3	136	<DL
Bis(2-chloroethyl) ether	>99.0	213	<DL
Bis(2-chloroisopropyl) ether	>98.3	206	<DL
Bis(2-ethyl-hexyl) phthalate	99.0	199	2
4-Bromophenyl phenyl ether	>99.1	225	<DL
Butyl benzyl phthalate	>99.4	226	<DL
4-Chloro-3-methylphenol	>99.1	171	<DL
2-Chloroethyl vinyl ether	>99.9	298	<DL
2-Chlorophenol	>98.1	175	<DL
4-Chlorophenyl phenyl ether	>99.1	197	<DL
Chrysene	>97.8	0.232	<DL
4,4'-DDD	97	59.4	1.7
Di-n-butyl phthalate	>99.6	245	<DL
Di-n-octyl phthalate	>98.8	179	<DL
Dibenzo[a,h]anthracene	93.4	0.524	0.0345
1,3-Dichlorobenzene	>99.8	99.7	<DL
3,3'-Dichlorobenzidine	>99.6	4.89	<DL
2,4-Dichlorophenol	>98.7	161	<DL
trans-1,3-Dichloropropene	>99.9	163	<DL
Dieldrin	99.7	132	0.43
Diethyl phthalate	>99.7	202	<DL
Dimethyl phthalate	>99.8	197	<DL
2,4-Dimethylphenol	>98.7	167	<DL
4,6-Dinitro-2-methyl phenol	>99.3	57.4	<DL
2,4-Dinitrotoluene	>94.3	175	<DL
2,6-Dinitrotoluene	>95.1	204	<DL
1,2-Diphenylhydrazine	>99.0	161	<DL
alpha-Endosulfan	97.1	75.6	2.20
beta-Endosulfan	97.5	79.4	1.95
Endosulfan Sulfate	95.4	85.2	3.95
Endrin Aldehyde	>99.0	20.3	<DL
Fluoranthene	>98.2	0.303	<DL
Fluorene	>99.7	7.56	<DL
Hexachlorobenzene	>98.8	84.3	<DL
Hexachloroethane	>96.6	46.6	<DL
Isophorone	>98.4	177	<DL
Naphthalene	>99.7	23.4	<DL
Nitrobenzene	>98.5	156	<DL
2-Nitrophenol	>99.5	150	<DL
4-Nitrophenol	>99.8	57.6	<DL
N-Nitroso-di-n-propylamine	>99.2	157	<DL
N-Nitrosodiphenylamine	>99.1	147	<DL
PCB-1016	>98.8	57.9	<DL
PCB-1221	>99.6	49.7	<DL

Additional Contaminants			
Chemical	% Reduction	Influent Concentration (µg/L)	Effluent Concentration (µg/L)
EPA Priority Pollutants			
PCB-1232	>98.4	30.9	<DL
PCB-1242	>99.2	35.5	<DL
PCB-1248	>99.4	35.6	<DL
PCB-1254	>97.5	40.3	<DL
Phenanthrene	>99.0	0.0752	<DL
Phenol	>98.1	68.7	<DL
Pyrene	>98.1	0.328	<DL
Strychnine	>99.8	47.5	<DL
TCDD 2,3,7,8-			
Tetrachlorodibenzoparadoxin	>99.9	0.0131	<DL
TCDF 2,3,7,8-			
Tetrachlorodibenzofuran	>99.9	0.0269	<DL
2,4,6-Trichlorophenol	>98.7	168	<DL
1,2,3-Trichloropropane	>99.4	86.6	<DL
Non-EPA Priority Pollutant			
Aldicarb	99.8	103	0.21
Carbaryl	>98.3	511	<DL
Chlorpyrifos	>99.9	212	<DL
4,4'-Dibromo-1,1'-biphenyl	95.7	46.0	2.00
Guthion	>99.9	46.1	<DL
Hydrocarbons	>91.3	1,150	<DL
Malathion	>99.0	217	<DL
Parathion	99.9	212	<DL

Rated Flow Speed: 3.4 L/min

Capacity of Cartridge: 5,000 L or one year service

Maximum Working Pressure: 125 psi (860 kPa)

Minimum Pressure: 15 psi (104 kPa)

Maximum Water Temperature: 30° C

Minimum Water Temperature: 4.4° C

Electrical Input: 19 VDC, 3.16 A

General Installation Conditions and Needs: See Owner's Manual

General Operation and Maintenance Requirements: See Owner's Manual

Explanation of Performance Indicator: See Owner's Manual

Manufacturer's Limited Warranty: See Owner's Manual

Installation must comply with local, regional, or national laws and regulations.

The contaminants listed above for reduction by the eSpring™ Water Purifier are not necessarily in your water.

The water purifier has been certified for the reduction of radon from drinking water at a loading rate of 15 litres per day. The certification is not for other potential radon sources including air. The water purifier should not be used on drinking water containing radon levels in excess of 4000 pCi/L.

While testing of this water purifier was performed under standard laboratory conditions, your actual performance may vary.

CAUTION: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the system.



SYSTEM TESTED AND CERTIFIED AGAINST NSF/ANSI STANDARD 42, 53, 55 AND 401

Product Information: (852) 2969-6300

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