

Performance Data Sheet

The **eSpring™** Water Treatment System is listed with the NSF International and WQA.

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

eSpring System No.: 10-0185-E
Replaceable Filter Cartridge No.: 10-0186-E

Functional Description: The **eSpring** Water Treatment System is comprised of a compressed activated carbon block filter and an ultraviolet lamp. The filter is composed of two outer non-woven pre-filters, and a layer of immobilised activated carbon.

This water treatment system 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. The system is only designed to reduce normally occurring non-pathogenic nuisance microorganisms. Class B Systems are not intended for the treatment of contaminated water.

This System has been tested according to NSF/ANSI 42, 53 and 401 and NSF Protocol P473 and P477 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 and NSF Protocol P473 and P477.

| Substance | Influent Challenge Concentration | Reduction Requirement/ Max. Removable Product Water Concentration | % Reduction |
|---|----------------------------------|---|-------------|
| NSF/ANSI Standard 42 Aesthetic Effects | | | |
| Particulates Class I (limit at 0.5 to <1 micron) | >10,000 | >85% | >85 |
| Chlorine Taste and Odor (mg/l as chlorine) | 2 ± 10% | >50% | >50 |
| Chloramine (mg/l) | 3 ± 10% | 0.5 | >85 |
| NSF/ANSI Standard 53 Health Effects | | | |
| Azobenzene (ibersmt >10 µm) | 10-10 | >99% | >99 |
| Lead at pH 5.5 (µg/l) | 150 ± 10% | 1.0 | >95 |
| Lead at pH 8.5 (µg/l) | 150 ± 10% | 1.0 | >95 |
| Mercury at pH 5.5 (µg/l) | 6.0 ± 10% | 2.0 | >90 |
| Mercury at pH 8.5 (µg/l) | 6.0 ± 10% | 2.0 | >90 |
| Arsenic (µg/l) | 40 ± 10% | 2.0 | >95 |
| Arsenic (µg/l) | 9 ± 10% | 3.0 | >90 |
| Benzene (µg/l) | 15 ± 10% | 5.0 | >85 |
| Carbofuran (µg/l) | 80 ± 10% | 4.0 | >95 |
| Carbon tetrachloride (µg/l) | 15 ± 10% | 0.5 | >95 |
| Chlordane (µg/l) | 40 ± 10% | 2.0 | >95 |
| Chlorobenzene (µg/l) | 2000 ± 10% | 100 | >85 |
| 2,4-D (µg/l) | 210 ± 10% | 70.0 | >85 |
| Dibromochloropropane (µg/l) | 4 ± 10% | 0.20 | >95 |
| p-Dichlorobenzene (µg/l) | 1800 ± 10% | 60 | >95 |
| Endrin (µg/l) | 6 ± 10% | 2.0 | >95 |
| Ethylbenzene (µg/l) | 2100 ± 10% | 70.0 | >85 |
| Ethylene dibromide (µg/l) | 1 ± 10% | 0.15 | >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 ± 10% | 5.0 | >85 |
| Methoxychlor (µg/l) | 120 ± 10% | 30.0 | >85 |
| Ratoin (µg/l) | 4000 ± 25% | 400 | >85 |
| Simazine (µg/l) | 4 ± 10% | 4 | >95 |
| Syringic (µg/l) | 2000 ± 10% | 100 | >95 |
| Tetrahydrothiophene (µg/l) | 15 ± 10% | 5 | >85 |
| Toxane (µg/l) | 3000 ± 10% | 1000 | >95 |
| Top 17 Herbicides (THMs as chloroform) (µg/l) | | | |
| Toxane (µg/l) | 450 ± 20% | 80.0 | >85 |
| Toxaphene (µg/l) | 15 ± 10% | 3.0 | >80 |
| 2,4,5 TP (Sivex) (µg/l) | 150 ± 10% | 50.0 | >85 |
| Trichloroethylene (µg/l) | 300 ± 10% | 1 | >95 |
| TCO's (µg/l as chloroform) | 300 ± 10% | 95% | >85 |
| NSF/ANSI Standard 41 Emerging compounds/Incidental Contaminants | | | |
| Microbromins (µg/l) | 400 ± 20% | 60 | >85 |
| Phenylene (µg/l) | 200 ± 20% | 30 | >85 |
| Aroclor (µg/l) | 200 ± 20% | 30 | >85 |
| Carbamazepine (µg/l) | 1,400 ± 20% | 200 | >85 |
| TCF (µg/l) | 5,000 ± 20% | 700 | >85 |
| TCPP (µg/l) | 5,000 ± 20% | 700 | >85 |
| DEET (µg/l) | 1,400 ± 20% | 200 | >85 |
| Meclozolin (µg/l) | 1,400 ± 20% | 200 | >85 |
| Trifluoromethyl acetate Chloroform fumigates chemical Bromoform Bromochloroethane Chlorobromoethane Xylenes total | 300 | 10 | 1.0 |

| Chemical | % Reduction | Influent Concentration (µg/l) | Effluent Concentration (µg/l) DL = detection limit |
|------------------------------|-------------|-------------------------------|--|
| Ascarbonyl | >99.7 | 67.9 | <DL |
| Acetochrylene | >99.7 | 44.9 | <DL |
| Albin | 97.4 | 14.4 | 0.38 |
| Antracene | >99.6 | 0.0106 | <DL |
| Benzidine | >99.6 | 2.54 | <DL |
| Benzothiazolone | >99.3 | 8.24 | <DL |
| Benzothiazole | 92.5 | 0.0605 | 0.00456 |
| Benzothiazolone | 98.7 | 0.316 | 0.00416 |
| Benzothiazolone | 91.0 | 0.434 | 0.0390 |
| Benzothiazolone | 98.1 | 0.325 | 0.00611 |
| beta-BHC | >99.6 | 81.4 | <DL |
| beta-BHC | >99.6 | 77.8 | <DL |
| gamma-BHC | >99.6 | 80.9 | <DL |
| Bis(2-Chlorophenyl)methane | >99.3 | 136 | <DL |
| Bis(2-chlorophenyl) ether | >99.4 | 213 | <DL |
| Bis(2-chloroisopropyl) ether | >99.3 | 206 | <DL |
| Bis(2-ethylhexyl) phosphate | 99.0 | 199 | 2 |
| 4-Bromophenyl ether | >99.1 | 225 | <DL |
| Butyl benzyl phosphate | >99.4 | 226 | <DL |
| 4-Chloro-3-methylphenol | >99.1 | 171 | <DL |
| 2-Chlorovinyl ether | >99.9 | 298 | <DL |
| 2-Chlorophenol | >98.1 | 175 | <DL |
| 4-Chlorophenyl phenyl ether | >99.1 | 197 | <DL |
| Chrysen | >97.8 | 0.232 | <DL |
| 4,4'-DDD | 97 | 58.4 | 1.7 |
| Di-n-butyl phosphate | >99.6 | 245 | <DL |
| Di-n-octyl phosphate | >98.8 | 179 | <DL |
| Dibenz(a,h)anthracene | 93.4 | 0.524 | 0.0345 |
| 1,3-Dichlorobenzene | >99.6 | 90 | <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 phosphate | >98.7 | 202 | <DL |
| Dimethyl phosphate | >98.8 | 197 | <DL |
| 2,4-Dimethylphenol | >98.7 | 167 | <DL |
| 4,6-Dinitro-2-methyl phenol | >99.3 | 57.4 | <DL |
| 2,4-Dinitrophenol | >99.7 | 57.6 | <DL |
| 2,6-Dinitrochlorobenzene | >99.2 | 175 | <DL |
| 2,6-Dinitrochlorobenzene | >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 | 99.4 | 89.2 | 3.95 |
| Enrin Aldehyde | >99.0 | 20.3 | <DL |
| Fluoranthene | >98.6 | 0.303 | <DL |
| Fluorene | >99.7 | 7.56 | <DL |
| Hexachlorobenzene | >98.6 | 84.3 | <DL |
| Hexachlorocyclopentadiene | >99.6 | 48.6 | <DL |
| Isophorone | >98.4 | 177 | <DL |
| Naphthalene | >99.7 | 23.4 | <DL |
| Nitrobenzene | >98.5 | 156 | <DL |
| 2-Nitrophenol | >98.2 | 150 | <DL |
| 4-Nitrophenol | >99.8 | 57.6 | <DL |
| N-Nitroso-d-n-propylamine | >99.2 | 157 | <DL |
| N-Nitrosodiphenylamine | >99.1 | 147 | <DL |
| PCB-1016 | >98.8 | 57.9 | <DL |
| PCB-1221 | >99.6 | 48.7 | <DL |

Independently from



SYSTEM TESTED AND CERTIFIED AGAINST NSF/ANSI STANDARD 42, 53, 55 AND 401 AND NSF PROTOCOL P473 & P477

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prestatie-informatieblad

Het **eSpring™** waterbehandelingsysteem staat genoteerd bij NSF International en WQA.

De volgende productinformatie wordt aangeboden overeenkomstig de bekendmakingsvereisten van NSF International en WQA.

eSpring systeemnr.: 10-0185-E
Vervangbaar filterpatroonnr.: 10-0186-E

Functionele beschrijving: Het **eSpring** waterbehandelingsysteem bestaat uit een gecompromitteerd actieve koolstof-blokfilter en een ultravioletlamp. Het filter bestaat uit twee niet-woven voorfilters aan de buitenkant en een laag geïmmobiliseerde actieve koolstof.

Dit waterbehandelingsysteem is geïncertificeerd als een systeem van klasse B overeenkomstig NSF/ANSI norm 55 en is uitgerust met een

ultravioletlamp (UV-lamp) die moet worden vervangen met tussenvoortzaken zoals aangegeven in de instructies van de fabrikant. Het systeem is ontworpen voor de aanvullende bacteriële behandeling van ofwel gezuiverd, gedeïncertificeerd opbaar drinkwater of ander drinkwater dat door bevoegde regionale of plaatselijke gezondheidsinstanties getest is en acceptabel is bevonden voor menselijke consumptie. Het systeem is ontworpen om uitsluitend normaal voorkomende niet-patogene of hinderlijke micro-organismen te reduceren, systemen van klasse B zijn niet bestemd voor de behandeling van verontreinigd water.

Dit systeem is getest overeenkomstig NSF/ANSI 42, 53 en 401 en NSF Protocol P473 en P477 voor de reductie van de hieronder vermelde stoffen. De concentratie van de aangegeven stoffen in water die het systeem binnenkomen, is gereduceerd tot een concentratie van minder dan of gelijk aan de toegestane limiet voor water dat het systeem verlaat zoals gespecificeerd in NSF/ANSI 42, 53 en 401 en NSF Protocol P473 en P477.

| Stof | Demisside concentratie van influent (µg/l) | Reductievereisten/ Max. toegestane concentratie van productwater | % reductie |
|---|--|--|------------|
| Deeltes – Klasse 1 (aant/m³ bij < 1 micron) | | | |
| Deeltes – Klasse 1 (aant/m³ bij < 1 micron) | >10,000 | >80% | >85 |
| Chlorine Taste and Odor (mg/l as chlorine) | 2 ± 10% | >50% | >50 |
| Chloramine (mg/l) | 3 ± 10% | 0.5 | >85 |
| Deeltes – Klasse 1 (aant/m³ bij < 1 micron) | | | |
| Azobenzene (ibersmt > 10 µm) | 10-10 | >99% | >99 |
| 2,4-D | 110 | 1.2 | >95 |
| Dibromochloropropane (DBCP) | 50 | 0.02 | >95 |
| p-Dichlorobenzene | 1800 | 60 | >95 |
| p-Dichlorobenzene | 6.0 ± 10% | 2.0 | >90 |
| Mercury at pH 5.5 (µg/l) | 6.0 ± 10% | 2.0 | >90 |
| Mercury at pH 8.5 (µg/l) | 6.0 ± 10% | 2.0 | >90 |
| Arsenic (µg/l) | 40 ± 10% | 2.0 | >95 |
| Arsenic (µg/l) | 9 ± 10% | 3.0 | >90 |
| Benzene (µg/l) | 15 ± 10% | 5.0 | >85 |
| Carbofuran (µg/l) | 80 ± 10% | 4.0 | >95 |
| Carbon tetrachloride (µg/l) | 15 ± 10% | 0.5 | >95 |
| Chlordane (µg/l) | 40 ± 10% | 2.0 | >95 |
| Chlorobenzene (µg/l) | 2000 ± 10% | 100 | >85 |
| 2,4-D (µg/l) | 210 ± 10% | 70.0 | >85 |
| Dibromochloropropane (µg/l) | 4 ± 10% | 0.20 | >95 |
| p-Dichlorobenzene (µg/l) | 1800 ± 10% | 60 | >95 |
| Endrin (µg/l) | 6 ± 10% | 2.0 | >95 |
| Ethylbenzene (EDB) | 44 | 0.02 | >95 |
| Halocarboniles (HANI) | 64 ± 10% | 2.0 | >95 |
| I Bromochloroacetonitril | 24 | 0.6 | >85 |
| Ethylbenzene (µg/l) | 2100 ± 10% | 700 | >85 |
| 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 ± 10% | 5.0 | >85 |
| Methoxychlor (µg/l) | 120 ± 10% | 30.0 | >85 |
| Ratoin (µg/l) | 4000 ± 25% | 400 | >85 |
| Simazine (µg/l) | 4 ± 10% | 4 | >95 |
| Syringic (µg/l) | 2000 ± 10% | 100 | >95 |
| Tetrahydrothiophene (µg/l) | 15 ± 10% | 5 | >85 |
| Toxane (µg/l) | 3000 ± 10% | 1000 | >95 |
| NSF/ANSI norm 401 voorkomende mangalt/rode/teer verontreiniging | | | |
| Microbromins (µg/l) | 400 ± 20% | 60 | >85 |
| Phenylene (µg/l) | 200 ± 20% | 30 | >85 |
| Aroclor (µg/l) | 200 ± 20% | 30 | >85 |
| Carbamazepine (µg/l) | 1,400 ± 20% | 200 | >85 |
| TCF (µg/l) | 5,000 ± 20% | 700 | >85 |
| TCPP (µg/l) | 5,000 ± 20% | 700 | >85 |
| DEET (µg/l) | 1,400 ± 20% | 200 | >85 |
| Meclozolin (µg/l) | 1,400 ± 20% | 200 | >85 |
| Trifluoromethyl acetate Chloroform fumigates chemical Bromoform Bromochloroethane Chlorobromoethane Xylenes total | 300 | 10 | 1.0 |

| Chemical | % Reduction | Influent Concentration (µg/l) | Effluent Concentration (µg/l) |
|------------------------------|-------------|-------------------------------|-------------------------------|
| PDB-1232 | >99.4 | 30.9 | <DL |
| PDB-1242 | >99.2 | 35.5 | <DL |
| PDB-1246 | >99.4 | 35.6 | <DL |
| PDB-1254 | >97.5 | 40.3 | <DL |
| Phenanthrene | >99.0 | 0.0752 | <DL |
| Phenol | >98.1 | 68.7 | <DL |
| Phenyl | >98.1 | 42 | 0.328 |
| Strychnine | >99.8 | 47.5 | <DL |
| TCDD 2,3,7,8 | >99.9 | 0.0131 | <DL |
| Benzothiazolone | >99.3 | 0.0269 | <DL |
| Benzothiazolone | >98.7 | 0.316 | 0.00416 |
| Benzothiazolone | 91.0 | 0.434 | 0.0390 |
| Benzothiazolone | 98.1 | 0.325 | 0.00611 |
| beta-BHC | >99.6 | 80.8 | <DL |
| beta-BHC | >99.6 | 81.4 | <DL |
| beta-BHC | >99.6 | 77.8 | <DL |
| gamma-BHC | >99.6 | 80.9 | <DL |
| Bis(2-Chlorophenyl)methaan | >99.3 | 136 | <DL |
| Bis(2-chlorophenyl) ether | >99.3 | 213 | <DL |
| Bis(2-chloroisopropyl) ether | >99.3 | 206 | <DL |
| Bis(2-ethylhexyl)phthalate | 99.0 | 199 | 46.1 |
| 4-Bromophenyl ether | >99.1 | 225 | <DL |
| Butyl benzyl fthalate | >99.4 | 226 | <DL |
| 4-Chloro-3-methylphenol | >99.1 | 171 | <DL |
| 2-Chlorovinyl ether | >99.9 | 298 | <DL |
| 2-Chlorophenol | >98.1 | 175 | <DL |
| 4-Chlorophenyl ether | >99.1 | 197 | <DL |
| Chrysen | >97.8 | 0.232 | <DL |
| 4,4'-DDD | 97 | 58.4 | 1.7 |
| Di-n-butyl fthalate | >99.6 | 245 | <DL |
| Di-n-octyl fthalate | >98.8 | 179 | <DL |
| Dibenz(a,h)anthracene | 93.4 | 0.524 | 0.0345 |
| 1,3-Dichlorobenzene | >99.6 | 90 | <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 fthalate | >98.7 | 202 | <DL |
| Dimethyl fthalate | >98.8 | 197 | <DL |
| 2,4-Dimethylphenol | >98.7 | 167 | <DL |
| 4,6-Dinitro-2-methyl fenol | >99.3 | 57.4 | <DL |
| 2,4-Dinitrophenol | >99.7 | 57.6 | <DL |
| 2,6-Dinitrochlorobenzene | >99.2 | 175 | <DL |
| 2,6-Dinitrochlorobenzene | >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 | 99.4 | 89.2 | 3.95 |
| Enrin Aldehyde | >99.0 | 20.3 | <DL |
| Fluoranthene | >98.2 | 0.303 | <DL |
| Fluorene | >99.7 | 7.56 | <DL |
| Hexachlorobenzene | >98.6 | 84.3 | <DL |
| Hexachlorocyclopentadiene | >99.6 | 48.6 | <DL |
| Isophorone | >98.4 | 177 | <DL |
| Naphthalene | >99.7 | 23.4 | <DL |
| Nitrobenzene | >98.5 | 156 | <DL |
| 2-Nitrophenol | >98.5 | 150 | <DL |
| 4-Nitrophenol | >99.8 | 57.6 | <DL |
| N-Nitroso-d-n-propylamine | >99.2 | 157 | <DL |
| N-Nitrosodiphenylamine | >99.1 | 147 | <DL |
| PCB-1016 | >98.8 | 57.9 | <DL |
| PCB-1221 | >99.6 | 48.7 | <DL |
| PCB-1232 | >99.4 | 30.9 | <DL |

TDe volgende tabel vermeldt de toegestane claims die gedaan kunnen worden voor drinkwaterzuiveringsproducten die aan de vereisten voor VOC-reductie hebben voldaan.

| Stof | 'Challenge'-niveau van influent (µg/l) | Maximaal niveau van effluent (µg/l) |
|--|--|-------------------------------------|
| Norma NSF/ANSI 42 sur les effets esthétiques | | |
| Arsenic | 50 | 1.0 |
| Arsenic | 100 | 3.0 |
| Benzene | 81 | 1.0 |
| Carbofuran | 190 | 1.0 |
| Chlorobenzene | 78 | 1.8 |
| Chloroform | 77 | 1.0 |
| Chloroform | 15 | 0.2 |
| 2,4-D | 110 | 1.7 |
| Dibromochloropropane (DBCP) | 50 | 0.02 |
| p-Dichlorobenzene | 1800 | 60 |
| p-Dichlorobenzene | 6.0 ± 10% | 2.0 |
| Mercury at pH 5.5 (µg/l) | 6.0 ± 10% | 2.0 |
| Mercury at pH 8.5 (µg/l) | 6.0 ± 10% | 2.0 |
| Arsenic (µg/l) | 40 ± 10% | 2.0 |
| Arsenic (µg/l) | 9 ± 10% | 3.0 |
| Benzene (µg/l) | 15 ± 10% | 5.0 |
| Carbofuran (µg/l) | 80 ± 10% | 4.0 |
| Carbon tetrachloride (µg/l) | 15 ± 10% | 0.5 |
| Chlordane (µg/l) | 40 ± 10% | 2.0 |
| Chlorobenzene (µg/l) | | |

