

NSF Performance Data - CBVOC

CB Tech's CBVOC is tested according to NSF/ANSI Standard 42 (Aesthetic Effects), Standard 53 (Health Effects), and Standard 401 (Incidental Contaminants / Emerging Compounds). CB Tech 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

CB Tech's CBVOC has been certified 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.

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
CHLORAMINE as Aesthetic Effect (As Monochloramine)	>97%	3.0 mg/L +/- 10%	0.5 mg/L
CHLORINE as Aesthetic Effect	99%	2.0 mg/L +/- 10%	> or = 50%
PARTICULATE, (Nominal Particulate Reduction, Class I, Particles 0.5 TO <1 µm)	Class I > 99%	At Least 10,000 particles/mL	> or = 85%

NSF/ANSI 53 - Health Effects

CB Tech's CBVOC has been certified 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.

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
ALACHLOR*	>98%	0.050	0.001
ASBESTOS	>99.9%	10 ⁷ to 10 ⁸ 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
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 (TTHM; Chlorodibromomethane)*	>99.8%	0.300	0.015
DIBROMOCHLOROPROPANE (DBCP)*	>99%	0.052	0.00002

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
o-DICHLOROENZENE (1,2 Dichlorobenzene)*	>99%	0.080	0.001
p-DICHLOROENZENE (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

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
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*		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
TRIHALOMETHANES (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-TRICHLOROENZENE)*	>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

CB Tech's CBVOC is certified 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***.

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Group I			
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
Group II			
TCEP	>97.9%	5000 ± 20%	0.0007 mg/L
TCP	97.8%	5000 ± 20%	0.0007 mg/L
Group III			
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

Footnotes

*Chloroform was used as a surrogate for claims of reduction of Volatile Organic Chemicals (VOC). CB Tech 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.**Percent reduction reflects actual performance of CB Tech product as specifically tested (at 200% of capacity). Percent reduction shown for VOCs reflects the allowable claims for Volatile Organic Chemicals/Compounds as per Tables. Chloroform was used as a surrogate for VOC reduction claims: the CB Tech Systems' actual reduction rate of Chloroform was >99.8% as tested (at 200% of capacity). ***NSF Standard 401 has been deemed as "incidental contaminants / emerging compounds". Incidental contaminants are those compounds that have been detected in drinking water suppliers at trace levels. While occurring at only trace levels these compounds can affect the public acceptance/perception of drinking water quality.

1. **Do not use with water that is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**
2. CB Tech Drinking Water Systems have been certified, as indicated, by NSF International for compliance to NSF/ANSI Standard Nos. 42, 53 & 401.
3. The CB Tech Drinking Water Systems have been certified by the State of California Department of Public Health for the reduction of specific contaminants listed herein.
4. Chloroform was used as a surrogate for claims of reduction of VOCs. CB Tech 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.
5. 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.
6. CB Tech Drinking Water System Housings are warranted for a lifetime (provided that filter has been changed at least once per 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 CB Tech 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.

CBVOC Specifications

Model Name:	CB-VOC (CBVOC)
Approximate Filter Capacity:	750 Gallons
Replacement Filter Type:	CBTVOC
Approximate Flow Rate:	0.75 gpm @60 psi
Pressure Vessel Composition:	Stainless Steel
Rubber Items:	Silicone
Outlet:	1/4" NPT
Inlet:	1/4" NPT
Working Pressure Range:	30 psi (2.1 kg/cm ²) to 100 psi (7.0 kg/cm ²)
Operating Temperature Range:	32° F (0° C) to 100° F (38° C) - for cold water use only
Particle Retention Size:	0.5 micron (sub-micron)
Certified By:	NSF International



**To discuss your requirements
and to request a quote, please contact:**

CB Tech Contract Sales
Phone: 866.622.9373
Fax: 702.360.9373
Email: Sales@CarbonBlockTech.com