



September 12, 2011

SHAKLEE CORPORATION  
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Re: Description: WATER TREATMENT DEVICE - POU ACTIVATED CARBON  
Manufacturer: SHAKLEE CORPORATION  
Product Name: BESTWATER MTS 2000  
Model Number(s): 82300 AND 82333 BOTH USING THE 52301 CARTRIDGE  
Product File No: 20110214

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of September 2016.

This approval supersedes the approval issued on November 27<sup>th</sup>, 2006 under product file number 20060389.

This approval is contingent upon compliance with the following stipulation(s):

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturer's published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 267-9787.
- If these approved devices are modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
- These devices will only reduce the concentration of volatile organic chemicals at water outlets that are served by the devices. There are dermal (skin) absorption and inhalation exposure risks associated with volatile organic chemicals. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to volatile organic chemicals will remain possible at unprotected outlets, particularly hot water outlets (e.g. bathing, showering, clothes washing or dish washing).

If, by way of reputable water analyses, a water supply is known to contain unsafe levels of volatile organic chemicals, then all the water entering the residence must be treated at the point-of-entry using an approved water treatment device to address all potential routes of exposure.

- These devices will only reduce the concentration of cysts/oocysts at water outlets that are served by the devices. Therefore, using point-of-use devices such as these will not protect all routes of potential exposure. Potentially hazardous exposures to cysts/oocysts will remain possible at unprotected outlets.

The presence of cysts/oocysts strongly suggests that other pathogens (e.g. bacteria, virus) may also be present.

If, by way of reputable water analyses, a water supply is known to contain cysts/oocysts, then all the water entering the residence must be treated at the point-of-entry, using an approved water treatment device, to address all potential routes of exposure thereby providing a biologically safe water supply.

- If the treatment components of this device (e.g. replacement cartridge) are replaced with anything other than those originally approved for use with this device, then this approval shall immediately be considered null and void.

Based on testing data submitted to and reviewed by the department, this approval recognizes that these plumbing products will reduce the concentration of contaminants as specified on pages 1 through 5 of this letter.

**HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20110214  
 TABLE 1 OF 4**

**Flow Rate:** 2.7 liters per minute (lpm) [0.7 gallon per minute (gpm)]  
**Capacity:** 3,785 liters (l) [1,000 gallons (gals.)]

Tested Contaminant	Influent Challenge (µg/l) <sup>1</sup>
Alachlor	50
Atrazine	100
Benzene	81
Carbofuran	190
Carbon tetrachloride	78
Chlorobenzene	77
Chloropicrin	15
2,4-D	110
Dibromochloropropane (DBCP)	52
o-Dichlorobenzene	80
p-Dichlorobenzene	40
1,2-Dichloroethane	88
1,1-Dichloroethylene	83
cis-1,2-Dichloroethylene	170
trans-1,2-Dichloroethylene	86
1,2-Dichloropropane	80
cis-1,3-Dichloropropylene	79
Dinoseb	170
Endrin	53
Ethylbenzene	88
Ethylene dibromide (EDB)	44
<b>Haloacetonitriles (HAN):</b>	-
Bromochloroacetonitrile	22
Dibromoacetonitrile	24
Dichloroacetonitrile	9.6
Trichloroacetonitrile	15
<b>Haloketones (HK):</b>	-
1,1-Dichloro-2-propanone	7.2



**HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20110214  
 TABLE 3 OF 4**

**Flow Rate:** 2.7 lpm (0.7 gpm)  
**Capacity:** 3,785 l (1,000 gals.)

Tested Contaminant	Influent Challenge Concentration (mg/l) <sup>1</sup>
Lead (Pb <sup>+2</sup> ) <sup>2</sup>	0.15 ± 10%

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 3 of 4 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for lead reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.010 mg/l.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)  
 \* ≤ = less than or equal to

2 = metals are tested at pH 6.5 and pH 8.5  
 ± = plus or minus

**AESTHETIC CONTAMINANT REDUCTION CAPABILITIES  
 PRODUCT FILE NUMBER 20110214  
 TABLE 4 OF 4**

**Flow Rate:** 2.7 lpm (0.7 gpm)  
**Capacity:** 3,785 l (1,000 gals.) for free chlorine and reduction. For particulate reduction, the capacity is dependent on the type and quantity of particulate matter present in the influent water; the need for maintenance may be indicated by a significant decrease in flow rate.

Tested Contaminant	Influent Challenge (mg/l) <sup>*1</sup>
Chlorine (free)	2.0 ± 10%
Particulates (0.5 to < 1.0 μm)	1.0 x 10 <sup>4</sup> #/ml

**Other Conditions:** the contaminant reduction performance capabilities displayed for Table 4 of 4 were verified by testing conducted in accordance with NSF *International* Standard 42. . To qualify for free chlorine reduction, the device must reduce the influent challenge concentrations by ≥ 50%; meeting the free chlorine reduction requirements also qualifies the device for the reduction of aesthetic, organic, taste and odor reduction (e.g. geosmin, methylisoborneol); this does not include hydrogen sulfide. To qualify for particulate reduction (Class 1), the device must reduce the influent challenge concentrations by ≥ 85%.

1 = milligrams per liter (mg/l) are equivalent to parts per million (ppm)  
 \* = unless otherwise specified  
 < = less than  
 μm = micrometers

#/ml = particles per milliliter  
 ≥ = greater than or equal to  
 ± = plus or minus

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This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter  
Engineering Consultant-Plumbing Product Reviewer  
Bureau of Integrated Services  
Safety and Buildings Division  
Department of Safety and Professional Services  
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GWS:gws