



Jim Doyle, Governor
Cory L. Nettles, Secretary

September 9, 2004

OASIS CORPORATION
DOUGLAS SHIPE
265 N HAMILTON RD
COLUMBUS OH 43213

WHIRLPOOL CORPORATION
DAVID E. SHEPERD
2000 M-63 N
BENTON HARBOR MI 49022

Re: Description: WATER TREATMENT DEVICE-ACTIVATED CARBON
Manufacturer: WHIRLPOOL CORPORATION
Product Name: ULTRA EASE FILTRATION
Model Number(s): WHAF-0435AC USING THE WHAB-6011 CARTRIDGE
Product File No: 20040387

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 2009.

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 manufacturers published instructions.
- For buildings not served by a municipal water supply, Department of Natural Resources (DNR) 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) 266-3415.
- If this approved device is 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.
- The WHAF-0435AC model, using the WHAB-6011 cartridge, must be installed along with the flow-monitoring device.
- If the "DirectHot" unit is installed along with this filtration device, then the outlet tubing of the "DirectHot" unit must conform to at least one of the standards listed in Table 84.30-8 of ch. Comm 84.30 (4) (e) of the Wisconsin Administrative Code and have a minimum working pressure of 100 psig at 180 degrees F.
- If the "DirectChill" and/or "DirectHot" peripheral devices are used in conjunction with this filtration device, then the power supply to these peripheral devices must be served by a ground fault circuit interrupter (GFCI) outlet.

Based on testing data submitted to and reviewed by the department, this approval recognizes that this plumbing product will reduce the concentration of contaminants as specified on pages 1 through 3 of this letter.

**HEALTH EFFECTING INORGANIC CONTAMINANT REDUCTION CAPABILITIES
 PRODUCT FILE NUMBER 20040387
 TABLE 1 OF 2**

Flow Rate: 2.3 liters (l) [0.6 gallon per minute (gpm)]
Capacity: 4,543 liters (l) [1,200 gallons (gals.)]

Tested Contaminant	Influent Challenge Concentration (mg/l) ¹
Mercury (Hg ⁺²) ²	0.006 ± 10%

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 2 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for mercury reduction, the device must reduce the influent challenge concentrations such that all effluent concentrations are ≤ 0.002 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

**HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
 PRODUCT FILE NUMBER 20040387
 TABLE 2 OF 2**

Flow Rate: 2.3 lpm (0.6 gpm)
Capacity: 4,543 l (1,200 gals.)

Tested Contaminant	Influent Challenge (µg/l) ¹
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
Haloacetonitriles (HAN):	-
Bromochloroacetonitrile	22
Dibromoacetonitrile	24

**HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
 PRODUCT FILE NUMBER 20040387
 TABLE 2 OF 2 (continued)**

Tested Contaminant	Influent Challenge (µg/l) ¹
Dichloroacetonitrile	9.6
Trichloroacetonitrile	15
Haloketones (HK):	-
1,1-Dichloro-2-propanone	7.2
1,1,1-Trichloro-2-propanone	8.2
Heptachlor (H-34, HEPTOX)	80
Heptachlor epoxide	10.7
Hexachlorobutadiene	44
Hexachlorocyclopentadiene	60
Lindane	55
Methoxychlor	50
Methyl <i>tert</i> -butyl ether	15 ± 20%
Pentachlorophenol	96
Simazine	120
Styrene	150
1,1,2,2-Tetrachloroethane	81
Tetrachloroethylene	81
Toluene	78
2,4,5-TP (silvex)	270
Tribromoacetic acid	42
1,2,4-Trichlorobenzene	160
1,1,1-Trichloroethane	84
1,1,2-Trichloroethane	150
Trichloroethylene	180
Trihalomethanes (chloroform surrogate)	300
Xylenes (total)	70

Other Conditions: the contaminant reduction performance capabilities displayed for Table 4 of 4 were verified by testing conducted in accordance with NSF *International* Standard 53. To qualify for the reduction of the organic contaminants listed above, the device must reduce the influent challenge concentration of chloroform at 300 µg/l ± 10% at each sample point by a minimum of 95%.

¹ = micrograms per liter (µg/l) are equivalent to parts per billion (ppb)

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 that may result from its use.

Sincerely,

Glen W. Schlueter
 Engineering Consultant-Plumbing Product Reviewer
 Bureau of Integrated Services
 Safety and Buildings Division
 Department of Commerce
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