

## PRODUCT DATA SHEET

# APTIVATOR™

APTIVATOR is an innovative, environmentally friendly sorption media for removing dissolved heavy metals from water. It is made of physically-, thermally-, and chemically-modified reed-sedge peat harvested from the abundant reserves of North America. APTIVATOR capitalizes on the known sorption mechanisms and capacities of natural peat while improving on those qualities that have limited peat's use in water treatment in the past.

### PROPERTIES AND SUGGESTED OPERATING CONDITIONS<sup>1</sup>

<b>Physical form</b>	Spherical granules		
<b>Matrix</b>	Reed-sedge peat		
<b>Mechanisms of sorption</b>	Chemical: ion-exchange, chemisorption, complexation Physical: surface adsorption Combination: adsorption-complexation		
<b>Metal capacity</b>	Dependent on matrix. Up to 10 mg/g in usual conditions.		
<b>Sizes available</b>	<b>4 x 8 mesh</b>	<b>8 x 30 mesh</b>	<b>12 x 50 mesh</b>
<b>Particle size</b>	4.8 x 2.4 mm	2.4 x 0.6 mm	1.7 x 0.3 mm
<b>Bulk density<sup>2</sup> (wet wt/wet vol)</b>	50 lbs/ft <sup>3</sup> (0.81 g/cm <sup>3</sup> )	58 lbs/ft <sup>3</sup> (0.93 g/cm <sup>3</sup> )	65 lbs/ft <sup>3</sup> (1.05 g/cm <sup>3</sup> )
<b>Permeability (ASTM D2434)</b>	14 cm/sec	3 cm/sec	1 cm/sec
<b>Particle density</b>	100 lbs/ft <sup>3</sup> (1.6 g/cm <sup>3</sup> )		
<b>Moisture content as shipped</b>	Fully saturated		
<b>Expansion<sup>3</sup></b>	None – media is fully saturated at time of shipment		
<b>pH of media</b>	6.0 – 7.2		
<b>Ash content</b>	15 – 18%		
<b>Maximum operating temperature</b>	170° F (77° C)		
<b>pH of water to be treated</b>	4 – 7.5		
<b>Recommended flow velocity m/h</b>	Up to 10		
<b>Pretreatment</b>	Flush with five bed volumes clean water; discharge to drain.		
<b>Regeneration</b>	Not recommended		
<b>Sparging/fluffing</b>	Water, air, CO <sub>2</sub> or N <sub>2</sub>		

<sup>1</sup> Test methods available on request.

<sup>2</sup> Because APTIVATOR is shipped fully saturated, the bulk density is expressed as saturated and drained weight over wet volume.

<sup>3</sup> If allowed to dry in the field, expect expansion of up to 45 percent upon rewetting.

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The user of this product must comply with all safety and regulatory standards. Consult your APT representative for further operating or usage information.

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