

PRODUCT DATA SHEET

bioAPT[®]

BioAPT is the industry standard for granular and powdered microbial carriers. It is made from reed-sedge peat harvested from the abundant reserves of North America. Its humic substrate helps to minimize the shock of transition from the bag to the field while its high water retention capacity protects delicate microbes from desiccation. It is adaptable to a wide variety of formulations and displays excellent nutrient retention and shelf life. Once inoculated, the media is proven to sustain and multiply microbial growth for over a year.

PROPERTIES¹

Physical form	Granular	Powdered #2 Fines
Matrix	Reed-sedge peat	Reed-sedge peat
Bulk density	40.6 lbs/ft ³ (0.65 g/cm ³)	45 lbs/ft ³ (0.72 g/cm ³)
Particle size	10 X 50 mesh (>98% of media)	100 x 375 mesh (44 – 58% of media)
Uniformity coefficient (C _u)	1.75	6.2
Particle density	100 lbs/ft ³ (1.6 g/cm ³)	N/A
Moisture content as shipped	9 – 14%	9 – 14%
pH of media	6.2 – 7.0	6.2 – 7.0
Ash content	15 – 17%	15 – 17%



Heat of wetting	BioAPT generates heat upon wetting. When moisture content is raised from the shipping moisture content of about 12% to 35%, expect a temperature increase of 6.5 to 13 degrees C.
Rewetting media	$Y = x \left(\frac{1 - i}{1 - D} \right) - x$ <p>Where:</p> <p>Y = mass of water needed (grams or lbs) x = mass of sample (grams or lbs) i = initial moisture content, expressed as decimal D = target moisture content, expressed as decimal</p>
Flowability	Granular media remains flowable and not sticky up to 40% moisture.

ELEMENTAL ANALYSIS OF RAW PEAT USED IN BIOAPT PRODUCTION

Element	%	Element	(mg/kg)	Element	(mg/kg)	Element	(mg/kg)
C	40 – 45%	Be	<1	Li	<4	Na	<860
H	4 – 6%	B	<21	Mg	<2300	Sr	<52
N	2 – 3%	Cd	<1	Mn	<250	Tl	<10
O	35 – 45%	Ca	<32,000	Hg	<0.06	Sn	<10
	(mg/kg)	Cr	<9	Mo	<4	Ti	<10
Al	<2500	Co	<2	Ni	<7	V	<4
Sb	<4	Cu	<7	K	<500	Zn	<30
As	<4	Fe	<5800	Se	<2		
Ba	<80	Pb	<7	Ag	<2		

BIOBURDEN AND PATHOGENS

Powdered BioAPT has tested negative for the presence of salmonella and hydrogen-sulfide-producing enterobacteria. Fusarium, Phytophthora, Pythium, Rhizoctonia and Sclerotinia spp. were not recovered by standard cultural methods. Fecal coliform: <0.3 MPN/gm. Yeast: <10 cfu/gm. Mold: 100 cfu/gm.

¹Test methods available upon request

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