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BLUE SPIRULINA (PHYCOCYANIN) E18

CERTIFICATE OF ANALYSIS LOT: BN2303302/BE

QA Signature: Steven Konert

Manufacture Date: March 20, 2023 Expiration Date: March 20, 2025

Appearance Dark blue free flowing powder. Conforms Visual Identification Complied to Standard Complied to Standard UV Spectrum Method Sensory Characteristic Conforms Smell Solubility Water Soluble Conforms Visual Ash \$8.0% 6.4% GB 5009.4-2016 Loss on Drying \$8.0% 6.3% GB 5009.3-2016 Color Value (10% E618na) 2180unit 184unit UV Method Particle Size 95% through 80 mesh 95% through 80 mesh AOAC 973.03 Heavy Metals Inorganic Arsenic \$0.5 ppm Conforms ICP/MS or AAS Lead \$0.5 ppm Conforms ICP/MS or AAS Cadmium \$0.1ppm Conforms ICP/MS or AAS Cadmium \$0.1ppm Conforms ICP/MS or AAS Mercury \$0.1ppm Conforms ICP/MS or AAS Microbiological Tests Aerobic Plate Count \$1,000 cfu/q 320cfu/q GB4789.2-2016 Yeast & Mold \$100cfu/q 10cfu/q FDA BAM 7th ed. Coli- group \$10cfu/q 10cfu/q IOcfu/q FDA BAM 7th ed. Coli- group \$10cfu/q 10cfu/q Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (81+82+61+62) <20 ppb Conforms HPLC		<u> </u>	<u>-</u>		
Identification Complied to Standard Complied to Standard UV Spectrum Method	Specification	Parameter	Result	Test Method	
Sensory Characteristic Conforms Smell Solubility Water Soluble Conforms Visual Ash ≤8.0% 6.4% GB 5009.4-2016 Loos on Drying ≤8.0% 6.3% GB 5009.3-2016 Color Value (10% E618na) ≥180 unit 184 unit UV Method Particle Size 95% through 80 mesh 95% through 80 mesh AOAC 973.03 Heavy Metals Inorganic Arsenic ≤0.5 ppm Conforms ICP/MS or AAS Lead ≤0.5 ppm Conforms ICP/MS or AAS Cadmium ≤0.1 ppm Conforms ICP/MS or AAS Mercury Conforms ICP/MS or AAS Polycyclic Aromatic Hydrocarbons(PAH) PAH 4 <25 ppb Conforms GS-MS Benzo(a)pyrene ≤5 ppb Conforms GS-MS Microbiological Tests Aerobic Plate Count ≤1,000 cfu/g 10cfu/g GB4789.2-2016 Yeast & Mold ≤100cfu/g 10cfu/g FDA BAM 7th ed. Coli group ≤10cfu/g Negative USP<202≥ Salmonella Negative/10g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Affatoxins (B1+82+G1+G2) <20 ppb Conforms HPLC Affatoxins (B1+82+G1+G2) <20 ppb Conforms HPLC Affatoxins (B1+82+G1+G2) <20 ppb Conforms HPLC	Appearance	Dark blue free flowing powder.	Conforms	Visual	
Solubility Water Soluble Conforms Visual	Identification	Complied to Standard	Complied to Standard	UV Spectrum Method	
Ash	Sensory	Characteristic	Conforms	Smell	
Loos on Drying	Solubility	Water Soluble	Conforms	Visual	
Color Value (10% E618na) 2180unit 184unit 184unit 197 Method 184unit 184unit 197 Method 197	Ash	≤8.0%	6.4%	GB 5009.4-2016	
Particle Size 95% through 80 mesh 95% through 80 mesh AOAC 973.03	Loos on Drying	≤8.0%	6.3%	GB 5009.3-2016	
Heavy Metals	Color Value (10% E618na)	≥180unit	184unit	UV Method	
Conforms CP/MS or AAS	Particle Size	95% through 80 mesh	95% through 80 mesh	AOAC 973.03	
Lead ≤0.5 ppm Conforms ICP/MS or AAS Cadmium ≤0.1ppm Conforms ICP/MS or AAS Mercury ≤0.1ppm Conforms ICP/MS or AAS Polycyclic Aromatic Hydrocarbons(PAH) PAH 4 <25ppb	Heavy Metals				
Cadmium ≤0.1ppm Conforms ICP/MS or AAS Mercury ≤0.1ppm Conforms ICP/MS or AAS Polycyclic Aromatic Hydrocarbons(PAH) PAH 4 <25ppb	Inorganic Arsenic	≤0.5 ppm	Conforms	ICP/MS or AAS	
Mercury ≤0.1ppm Conforms ICP/MS or AAS	Lead	≤0.5 ppm	Conforms	ICP/MS or AAS	
Polycyclic Aromatic Hydrocarbons(PAH) PAH 4	Cadmium	≤0.1ppm	Conforms	ICP/MS or AAS	
PAH 4 <25ppb Conforms GS-MS Benzo(a)pyrene <5 ppb	Mercury	≤0.1ppm	Conforms	ICP/MS or AAS	
Semilar Sem	Polycyclic Aromatic Hydrocarbons(PAH)				
Microbiological Tests Aerobic Plate Count ≤1,000 cfu/g 320cfu/g GB4789.2-2016 Yeast & Mold ≤100cfu/g 10cfu/g FDA BAM 7th ed. Coli- group ≤10cfu/g A0AC 966.24 E.Coli. Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb	PAH 4	<25ppb	Conforms	GS-MS	
Aerobic Plate Count ≤1,000 cfu/g 320cfu/g GB4789.2-2016 Yeast & Mold ≤100cfu/g 10cfu/g FDA BAM 7th ed. Coli- group ≤10cfu/g 10cfu/g AOAC 966.24 E.Coli. Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb	Benzo(a)pyrene	<5 ppb	Conforms	GS-MS	
Yeast & Mold ≤100cfu/g 10cfu/g FDA BAM 7th ed. Coli- group ≤10cfu/g 10cfu/g AOAC 966.24 E.Coli. Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb	Microbiological Tests				
Coli- group ≤10cfu/g 10cfu/g AOAC 966.24 E.Coli. Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb	Aerobic Plate Count	≤1,000 cfu/g	320cfu/g	GB4789.2-2016	
E.Coli. Negative/10g Negative USP<2022> Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb Conforms HPLC Aflatoxin B1 <5ppb Conforms HPLC	Yeast & Mold	≤100cfu/g	10cfu/g	FDA BAM 7th ed.	
Salmonella Negative/10g Negative USP<2022> Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb	Coli- group	≤10cfu/g	10cfu/g	AOAC 966.24	
Bacillus cersus ≤100 cfu/g Negative USP<2022> Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb Conforms HPLC Aflatoxin B1 <5ppb Conforms HPLC	E.Coli.	Negative/10g	Negative	USP<2022>	
Staphylococcus aureus Negative/10g Negative USP<2022> Aflatoxins (B1+B2+G1+G2) <20 ppb Conforms HPLC Aflatoxin B1 <5ppb Conforms HPLC	Salmonella	Negative/10g	Negative	USP<2022>	
Aflatoxins (B1+B2+G1+G2) <20 ppb Conforms HPLC Aflatoxin B1 <5ppb Conforms HPLC	Bacillus cersus	≤100 cfu/g	Negative	USP<2022>	
Aflatoxin B1 <5ppb Conforms HPLC	Staphylococcus aureus	Negative/10g	Negative	USP<2022>	
	Aflatoxins (B1+B2+G1+G2)	<20 ppb	Conforms	HPLC	
Microcystins <1ppb Conforms HPLC	Aflatoxin B1	<5ppb	Conforms	HPLC	
	Microcystins	<1ppb	Conforms	HPLC	

Storage Condition: Store in tightly closed container and keep in a cool dry area. Keep away from strong direct light.

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