



herbatica

Herbatica s.r.o.
Komenského 20
Piešťany 92101
Slovensko

Certificate of Analysis

Ashwagandha Extract

Parameter	Result	Limit	Reference
Physical			
Description	Complies	Brown to dark brown powder	Visual and Organoleptic
Identification	Complies	TLC for Alkaloids and Withanolides	SLL/STP-A-012
Water solubility (1% w/v solution)	84.26% w/w	Not less than 70.0% w/w	SLL/STP-S-028
Alcohol solubility (1% w/v solution)	85.78% w/w	Not less than 60.0% w/w	
Loss on drying	3.08% w/w	Not more than 5.0% w/w	EP 2.2.32
Ash content	5.11% w/w	Not more than 15.0% w/w	EP 2.4.16 Method-II
Tapped bulk density	0.77 g/ml	Between 0.60 g/ml and 0.85 g/ml	EP 2.9.34 Method-I
Loose bulk density	0.56 g/ml	Record	EP 2.9.34 Method-I
Sieve Test (20 mesh)	100.00% w/w	Not less than 100% w/w	USP <786>
Sieve Test (40 mesh)	99.29% w/w	Not less than 85% w/w	USP <786>
Sieve Test (80 mesh)	94.45% w/w	Not less than 70% w/w	USP <786>
Chemical			
Alkaloids content by Gravimetry	1.03% w/w	Not less than 1.0% w/w	SLL/STP-A-051
Total Withanolides (free & glyco-)	7.33% w/w	Not less than 7.0%, not more than 10.0% w/w	SLL/STP-W-005
Withaferin-A content by HPLC	0.02% w/w	Not more than 2.0% w/w	SLL/STP-W-004
Heavy Metals			
Lead	<0.2 ppm (µg/g)	Not more than 3 ppm (µg/g)	USP <2232>
Arsenic	<0.2 ppm (µg/g)	Not more than 1 ppm (µg/g)	USP <2232>



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Parameter	Result	Limit	Reference
Cadmium	<0.2 ppm (µg/g)	Not more than 1 ppm (µg/g)	USP <2232>
Mercury	<0.02 ppm (µg/g)	Not more than 0.1 ppm (µg/g)	USP <2232>
Residual solvents	Complies	EU Directive 2009/32/EC	USP <467>
Residual pesticides	Complies	EP	USP <561>
Poly Aromatic Hydrocarbons (PAH)	Complies		SLL/STP-P-109
- Benzo(a)pyrene	Complies	Not more than 10 ppb (µg/kg)	
- PAH4	Complies	Not more than 50 ppb (µg/kg)	
Ethylene oxide (Sum of Ethylene oxide and 2-Chloroethanol)	Complies	Not more than 100 ppb (µg/kg)	SLL/STP-E-015
Microbiological Profile			
Total aerobic microbial count	<100 cfu/g	Not more than 5000 cfu/g	EP 2.6.31
Total yeasts and molds count	<10 cfu/g	Not more than 100 cfu/g	EP 2.6.31
Escherichia coli	Complies	Negative/10g	EP 2.6.31
Salmonella	Complies	Negative/25g	EP 2.6.31
Staphylococcus aureus	Complies	Negative/10g	EP 2.6.13
Pseudomonas aeruginosa	Complies	Negative/10g	EP 2.6.13
Bile tolerant Gram-negative bacteria	<10 cfu/g	Not more than 100 cfu/g	EP 2.6.31
Coliforms	<10 cfu/g	Less than 10 cfu/g	BAM Chapter 4

Additional Information

- Hygroscopic
- Non-irradiated and not treated with Ethylene Oxide (ETO)
- Kosher and Halal certified
- BSE/TSE free
- GMO free
- Cultivated in India
- Store at room temperature in an air-tight container away from moisture



 www.herbatika.sk/cz/hu/ro