



Certificate of Analysis

Product Name:	Guarana Extract	Batch Number:	Varies
Botanical Name:	<i>Paullinia guarana</i>	Manufacture Date:	Varies
Used part:	Seeds	Expiry Date:	Varies

IDENTIFICATION		SPECIFICATION	RESULT
Caffeine		$\geq 20\%$	20.16 - 20.9%
Physical	Appearance	Brown powder	Complies
	Odor & Taste	Characteristic	Complies
	Particle Size	95% pass 80 mesh	Complies
	Moisture	$\leq 5\%$	2.05 - 2.10%
	Total ash	$\leq 3\%$	1.30 - 1.46%
	Residue of Solvents	None	Complies
	Solubility	Soluble in ethanol and water and insoluble in Benzene	Complies
Chemical	Heavy Metals	≤ 10 ppm	Complies
	Lead (Pb)	≤ 1 ppm	Complies
	Arsenic (As)	≤ 1 ppm	Complies
	Mercury (Hg)	$\leq 0.5 - 1$ ppm	Complies
Microbial	Total Plate Count	≤ 1000 cfu/g	Complies
	Yeast & Mold	≤ 100 cfu/g	Complies
	E. Coli, Salmonella,	Negative	Complies

Else	Storage condition	Sealed, kept in shady and dry place
	Shelf life	Two years

