

## CERTIFICATES OF ANALYSIS

### GUARANA DRY EXTRACT

Ref: PR 748

Batch: P20022707  
Manufactured: 03.2020

Date: 2020, March 09<sup>th</sup>  
Shelf life: 03.2022

#### CONTROLS

Botanical kind  
Part of the plant  
Extraction solvent  
Description

Carrier

Solubility

Bulk density

(Eur. Ph. VIII° Ed. 2.9.34)

Loss on drying

(Eur. Ph. VIII° Ed. 2.8.17)

pH

(Eur. Ph. VIII° Ed. 2.2.3)

Screening

(Internal method)

Heavy metals (Control plan)\*

(ICP, internal method)

Pb

Cd

Hg

Pesticides (Control plan)\*

(GC-MSMS/LC-MSMS, internal method)

PAH (Control plan)\*

PAHs (sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene)

(GC-MS, internal method)

Benzo(a)pyrene

(GC-MS, internal method)

Identification (on raw material) (Control plan)\*

(TLC, Eur. Ph. VIII° Ed. (2.2.27)) (= MO-86)

Assay

(HPLC, Fr. Ph. XI° Ed. (2010))

"Green coffee" monograph (adapted)) (= MO-48)

#### MICROBIOLOGY

(Eur. Ph. VIII° Ed. 2.6.12 and 2.6.31)

Total aerobic microbial count

Total yeasts/moulds count

Salmonella

Bile-tolerant Gram negative bacteria

Escherichia coli

#### SPECIFICATIONS

Sapindaceae Paullinia cupana Kunth

Seed

Ethanol, water 30 : 70 (V/V)

Thin hygroscopic beige to brown powder

Wheat maltodextrin

To be tested following the degree of incorporation

0.40 - 0.70

≤ 8.00%

3.5 – 7.0 (1% in demineralized water)

Min 95% < 500 µm

< 3.00 ppm

< 1.00 ppm

< 0.10 ppm

< Residual Maximum Limit fixed in European regulation 396/2005 and its modifications

< 50 µg/kg

< 10 µg/kg

Complies with "Guarana (seed)" monograph

Fr. Ph. XI° Ed. (2010)

Standardized at 22.00 - 25.00% Natural caffeine

< 10 000 CFU / g\*\*

< 100 CFU / g\*\*

Absent / 25g

< 100 CFU / g

Absent / g

#### RESULTS

Standard

Standard

Standard

Beige pinkish powder

Standard

0.46

2.72%

4.2

Standard

Complies\*

Complies\*

Complies\*

Complies\*

Complies\*

Complies\*

Complies\*

22.20%

< 100 CFU / g

< 10 CFU / g

Absent / 25g

< 10 CFU / g

Absent / g

\*HACCP based control plan defined annually: one analysis on half finished product.

\*\*Acceptable maximal count: 5 times the acceptance criterion according to Eur. Ph. VIII° Ed 5.1.8 Category B

**Storage: Keep in a dry and clean place, protected from light.**

**QUALITY CONTROL**

Laboratory manager

