NATUREX
Ultimate Botanical Benefits

# Certificate of Analysis

## GREEN TEA PE 98% POLYPHENOLS - 95201191

***Batch N°: D104/027/A12***

**Ref.**
**ED175067**
GRE-17

| | SPECIFICATIONS | METHODS | RESULTS |
|---|---|---|---|
| **Organoleptic Quality :** | | | |
| Appearance: | Powder | Visual: (CQ-MO-148) | Conform |
| Color : | Green to brown | Visual: (CQ-MO-148) | Conform |
| Flavor : | Characteristic | Sensory: (CQ-MO-148) | Conform |
| **Analytical Quality :** | | | |
| Identification (TLC) : | Camellia sinensis | TLC: (QC-SOP-070) | Conform |
| Polyphenols content (as EGCG) : | > 97 % by Folin-Ciocalteu | Folin-Ciocalteu as EGCG | 98.90 |
| Catechins content : | > 65 % by HPLC | HPLC: (CQ-MO-138) | 68.00 |
| EGCG content : | > 38 % by HPLC | HPLC: (CQ-MO-138) | 40.50 |
| Caffeine content : | < 0.5 % by HPLC | HPLC: (CQ-MO-138) | 0.20 |
| Loss on drying : | < 6 % | I.R. balance: (CQ-MO-018) | 1.70 |
| pH (1% in water) : | 3 - 6 | pH-meter: (CQ-MO-123) | 4.81 |
| Particle size : | 100 % through 40 mesh | Sieve: (CQ-MO-023) | 100 |
| Bulk density : | > 0.4 g/ml | Densimeter: (CQ-MO-257) | 0.50 |
| Ash : | < 0.5 % | Oven: (CQ-MO-049) | Conform |
| Arsenic content : | < 2 ppm* | ICP-OES: (CQ-MO-247) | Conform |
| Cadmium content : | < 1 ppm* | ICP-OES: (CQ-MO-247) | Conform |
| Lead content : | < 2 ppm* | ICP-OES: (CQ-MO-247) | Conform |
| Mercury content : | < 0.5 ppm* | ICP-OES: (CQ-MO-247) | Conform |
| Residual ethanol content : | < 0.1 %* | GC: (CQ-MO-168) | Conform |
| Residual ethyl acetate content : | < 50 ppm* | GC: (CQ-MO-168) | Conform |
| Benzopyrene content : | < 10 ppb* | External laboratory | Conform |
| Pesticide residues : | Complies with USP <561>* | USP <561> | Conform |
| Synthetic dyes : | None detected (< 5 ppm) | External laboratory | Pending |
| Irradiation detection : | Not irradiated (PPSL<700) | PPSL | 150 |
| Screened Molecules : | See list (1) on last page | | |
| **Microbiological Quality :** | | | |
| Total plate count : | < 1,000 cfu/g | Count: (CQ-MO-231) | < 10 cfu/g |
| Yeasts and molds : | < 100 cfu/g | Count: (CQ-MO-244) | < 10 cfu/g |
| Coliforms : | < 10 cfu/g* | Count: (External lab.) | < 10 cfu/g |
| E.coli : | Negative / g* | Count: (External lab.) | Negative / g |
| Salmonella : | Negative / 25 g* | Count: (External lab.) | Negative / 25 g |
| Staphylococcus aureus : | Negative / g* | Count: (External lab.) | Negative / g |

**Description :**

Botanical name: Camellia sinensis
Plant part used: leaf
Extraction solvent: water 30% / ethanol 70% then ethyl acetate 100%
Extract ratio: 15 / 1

Synthetic dyes: Analyses performed on all sub-batches that compose the final batch
*Conform with our specifications, analysis performed once a year.

Manufacturing date : April 13, 2012
Expiry date : April 11, 2014 .



GLOBAL HEADQUARTERS - Site d'Agroparc - BP 1218 - 84911 Avignon cedex 9 - France - Tel : 33 (0)4 90 23 96 89 - Fax : 33 (0)4 90 23 73 40
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Date of issue : April 13, 2012

***TALLADA Laura***
***LABORATORY SUPERVISOR***



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|---|---|---|---|
| List of screened molecules (1) : | | | |
| Alachlor : | < 0.02 ppm* | USP <561> | < 0.02 ppm |
| Aldrin and Dieldrin (sum of) : | < 0.05 ppm* | USP <561> | < 0.05 ppm |
| Azinfos-methyl : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| Brompropylat : | < 3.00 ppm* | USP <561> | < 3.00 ppm |
| Chlordane (sum of isomers cis-, trans- and oxychlordane) : | < 0.05 ppm* | USP <561> | < 0.05 ppm |
| Chlorfenvinphos : | < 0.50 ppm* | USP <561> | < 0.50 ppm |
| Chlorpyriphos : | < 0.20 ppm* | USP <561> | < 0.20 ppm |
| Chlorpyrifos-methyl : | < 0.10 ppm* | USP <561> | < 0.10 ppm |
| Cypermethrin (and isomers) : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| DDT (sum of p,p'-DDT, o,p'-DDT and Total DDT) : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| Deltamethrin : | < 0.50 ppm* | USP <561> | < 0.50 ppm |
| Diazinon : | < 0.50 ppm* | USP <561> | < 0.50 ppm |
| Dichlorvos : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| Dithiocarbamates (in CS2) : | < 2.00 ppm* | USP <561> | < 2.00 ppm |
| Endosulfan (sum of isomers and of endosulfan sulfate) : | < 3.00 ppm* | USP <561> | < 3.00 ppm |
| Endrin : | < 0.05 ppm* | USP <561> | < 0.05 ppm |
| Ethion : | < 2.00 ppm* | USP <561> | < 2.00 ppm |
| Formothion : | < 0.50 ppm* | USP <561> | < 0.50 ppm |
| Fenvalerate : | < 1.50 ppm* | USP <561> | < 1.50 ppm |
| Fonofos : | < 0.05 ppm* | USP <561> | < 0.05 ppm |
| Heptachlor : | < 0.05 ppm* | USP <561> | < 0.05 ppm |
| Hexachlorobenzene : | < 0.10 ppm* | USP <561> | < 0.10 ppm |
| Hexachlorocyclohexane (apha, beta, delta) : | < 0.30 ppm* | USP <561> | < 0.30 ppm |
| Lindane (gamma-hexachlorocyclohexane) : | < 0.60 ppm* | USP <561> | < 0.60 ppm |
| Malathion : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| Methidathion : | < 0.20 ppm* | USP <561> | < 0.20 ppm |
| Parathion (-ethyl) : | < 0.50 ppm* | USP <561> | < 0.50 ppm |
| Paraoxon (-ethyl) : | < 0.20 ppm* | USP <561> | < 0.20 ppm |
| Permethrin (cis, trans, total) : | < 1.00 ppm* | USP <561> | < 1.00 ppm |
| Pyridaben : | < 0.10 ppm* | USP <561> | < 0.10 ppm |
| Piperonyl butoxide : | < 3.00 ppm* | USP <561> | < 3.00 ppm |
| Pirimiphos-methyl : | < 4.00 ppm* | USP <561> | < 4.00 ppm |
| Pyrethrins (sum of) : | < 3.00 ppm* | USP <561> | < 3.00 ppm |
| Quintozene (sum of quintozene, pentachloroaniline and methylpentachlorophenyl sulfide) : | < 1.00 ppm* | USP <561> | < 1.00 ppm |



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