



SPECIFICATION SHEET

PRODUCT: **Green Coffee Extract – Supercritical Extract, GCA-H**
Ingredient Contents: 100% Green Coffee Beans

Product Description

An extract of polyphenolic antioxidants from green coffee beans maintaining coffee's natural caffeine content. Green Coffee Extract supplied to AFS is 100% green coffee, it contains no excipients, carriers or active agents.

Standardized For: 35.0% ±5.0% Chlorogenic Acids, 12% Caffeine

Manufactured with: 100% Arabica CAFÉ Practices Green Coffee (*Genus: Coffea Species: arabica*)

Specifications

	Specification	Method ID
Appearance	Light Brown Powder	ISO10399
Assay	> 97.0%	USP <731>
Chlorogenic Acid	53% ± 3%	HPLC ¹
Caffeine Content	12% ± 2%	FCC 10 (third supplement)
Lead	< 0.25 ppm	ICP-MS AOAC 2013.06
pH	4.8 ± 0.40	AOAC 973.41 ²
Color @ 400 nm	0.5 ± 0.25	(3)
Solubility	99.5 w/w% ± 0.5	(3)
Arsenic	< 0.15 ppm	ICP-MS AOAC 2013.06
Cadmium	< 2.5 ppm	ICP-MS AOAC 2013.06
Mercury	< 1.5 ppm	ICP-MS AOAC 2013.06
Heavy Metals	< 10 ppm	ICP-MS AOAC 2013.06
<i>E. coli</i>	negative / 25 g	USP <62>
Total Coliform	< 10 MPN/g	AOAC 996.24, MPN, FDA BAM
<i>Salmonella</i>	negative / 375 g	USP <62>
<i>Pseudomonas aeruginosa</i>	negative / 25 g	USP <62>
<i>Staphylococcus</i>	negative / 25 g	USP <62>
Yeast & Mold	< 100 colonies /g	USP <61>
Aerobic Total Plate Count	< 10 ⁴ CFU/g	AOAC 990.12, FDA BAM
Residual Solvents	< 400 ppm	USP <467>
Density	> 0.40 g/ml	tapped

Meets the microbe requirements of the United States Pharmacopoeia.

(1) HPLC, A.P.Craig et al Talanta 154 (2016) 481-485

(2) AOAC 973.41 pH in Water modified for 0.50 w/w% solution

(3) Internal AFS SOP-04-007, SOP-04-008, Ref for 0.50 w/w% solution

Allergen Specifications

The Green Coffee Bean extract, should be **free** from the following known allergens:

Milk	Eggs
Fish	Shellfish / Shrimp
Nuts	Wheat
Soybeans	Lactose

Additional Testing Validation Program

Foreign Matter: NMT 15 particles / 250 grams, no metallic particles, no insect parts

Chemical:

Mycotoxin Screen:

- Aflatoxin B1: < 2 ppb
- Aflatoxin B2, G1, G2 or sum of aflatoxins: < 5 ppb
- Ochratoxin A or B: < 10 ppb
- Fumonisin: < 100 ppb

Pesticide Screen: Complies with the USP34-NF29:561 requirements

Packing Specifications

Available in 5 or 25 kg food grade plastic drums with polyethylene bags.

Storage Specifications. Store in well-closed containers in a dry place at ambient temperature (20-30 °C). Material should be re-tested after storage for two years.

Sterilization Specifications

Non-contact steam heat in drying operation. No approved radiation sterilization methods.

CONFIDENTIAL DOCUMENT – DO NOT COPY, DO NOT DISTRIBUTE

Internal Release Document: Applied Food Sciences Inc.

FOR-03-006(022-D)

2/20/2023