



HEMP SEED 20% PROTEIN POWDER (P20)

PRODUCT OVERVIEW

Description:	Cold- milled hemp powder made from hemp seed
Common Names:	Coarse hemp protein powder, CHP
Ingredients:	Milled hemp seed cake
Hemp Varieties:	Finola, CFX-1, CFX-2, CRS-1, Canma, Grandi, Granma, Katani, Piccoli, X-59
Purity:	99.9%
Shelf Life:	30 months from the date of manufacture
Storage:	Store in a cool, dry place, at ambient temperatures. 30-50% RH. Keep away from heat or light.
Packaging:	2000 lb bulk tote bags, or 50 lb poly-woven bag with food grain liners
Allergen:	Does not contain any 'major' allergens as defined by the FDA and CFIA
Accreditations*:	BRCGS certified, Kosher (OU), Halal, Non-GMO, Organic (COR / NOP / EUEQ)
Protein Digestibility****:	PDCAAS= 0.1 (source****:House et al.)
Treatment:	No preservatives, no irradiation

TEST	SPECIFICATION	METHOD
ORGANOLEPTIC		
Appearance	Dark brown/ greenish coarse powder	Internal SOP
Flavor & Odor	Fresh with nutty flavor and aroma, typical hemp seed	Internal SOP
MICROBIOLOGICAL		
Standard Plate Count (SPC)	< 250,000 cfu/g	AOAC 990.12
Total Coliform	< 500 cfu/g	AOAC 991.14
Yeast & Mold	< 1,000 cfu/g	AOAC 2014.05
<i>E. coli</i>	< 10 cfu/g	AOAC 991.14
<i>Salmonella</i>	Negative in 375 g	MFLP-29
Staphylococcus Aureus	Negative at <25	USP<2021/2022>
Listeria	Negative	MFHPB-30
CHEMICAL		
Peroxide Value (PV)	0-8 meq/kg	NIR
Free Fatty Acid (FFA)	<2% (as oleic acid)	NIR
Arsenic**	< 1.5 ppm	ICP-MS
Cadmium**	< 0.5 ppm	ICP-MS
Lead**	< 0.5 ppm	ICP-MS
Mercury**	< 1.5 ppm	ICP-MS
Total THC**	< 4 ppm	AFVAN-SLMF-0027
Total CBD**	< 150 ppm	AFVAN-SLMF-0074
Gluten***	< 20 ppm	ELISA
Total Fat %	<10%	NIR

* Accreditations and certifications available upon request.

** Verification testing only, batch specific testing not performed.

***Gluten verification only guaranteed for gluten-free orders

**** Nutritional analysis, Fatty Acid Profile, and Amino Acid Profile are based on typical test results and should be used only to approximate the nutritional composition of any food formulations.

***** Fatty acids <0.04% (g/100g) not listed in Fatty Acid Profile



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NUTRITIONAL ANALYSIS

NUTRIENTS	per 100 g
Calories (kcal)	265
Protein (g)	19.0
Carbohydrates (g)	66.3
Dietary Fiber (g)	66.5
Soluble Fiber (g)	NA
Insoluble Fiber (g)	NA
Total Sugars (g)	0.8
Added Sugar (g)	0
Sugar Alcohol (g)	0
Total Fat (g)	6.2
Saturated Fat (g)	0.6
Monounsaturated Fat (g)	0.7
Polyunsaturated Fat (g)	4.9
Omega 3 fatty acid (g)	1.2
Omega 6 fatty acid (g)	3.7
Omega 9 fatty acid (g)	0.7
Trans Fats (g)	<0.1
Cholesterol (mg)	<2.0
Total Polyphenols (mg)	NA

VITAMINS	per 100 g
Beta-Carotene (mcg)	<20.0
Vitamin A (mcg)	<20.0
Vitamin B1 (mg)	0.32
Vitamin B2 (mg)	0.14
Vitamin B3 (mg)	1.65
Vitamin B6 (mg)	0.17
Vitamin B9 Folic Acid (mcg)	26.2
Vitamin B12 (ug)	<0.025
Vitamin C (mg)	<2.0
Vitamin D (mcg)	<0.2
Vitamin E (Alpha-tocopherol) (mg)	NA
Vitamin E (Y-tocopherol) (mg)	<0.67
Pantothenic Acid (mg)	0.143

MINERALS	per 100 g
Sodium (mg)	<10
Magnesium (mg)	2463.3
Phosphorous (mg)	4370
Potassium (mg)	4801
Calcium (mg)	1151
Manganese (ug)	107.0
Iron (mg)	78
Copper (mg)	16.2
Zinc (mg)	34

RADICAL SCAVENGING	%
DPPH Scavenging Activity (%)	NA

FATTY ACID PROFILE (%)	per 100 g
Myristic acid 14:0	NA
Palmitic acid 16:0	0.4
Palmitoleic acid 16:1	NA
Stearic acid 18:0	0.1
Oleic acid 18:1 n-9c/Elaidic acid 18:1 n-9t	0.6
Linoleic acid (LA) 18:2 n-6 cis	3.4
Alpha-Linoleic acid (ALA) 18:3 n-3	1.1
Gamma-Linolenic acid (GLA) 18:3 n-6	0.3
Stearidonic Acid (SDA) 18:4 n-3	<0.1
Arachidic acid 20:0	<0.1
cis-11-Eicosenoic acid 20:1	NA
cis-11,14-Eicosadienoic acid 20:2	NA
Behenic acid 22:0	<0.1
Lignoceric acid 24:0	<0.1

AMINO ACID PROFILE (%)	per 100 g
Alanine	0.65
Arginine	1.27
Aspartic Acid	1.46
Cystine	0.16
Glutamic Acid	2.18
Glycine	0.61
Histidine	0.28
Isoleucine	0.42
Leucine	0.89
Lysine	0.14
Methionine	0.33
Phenylalanine	0.57
Proline	0.81
Serine	0.68
Threonine	0.47
Tryptophan	<0.1
Tyrosine	0.42
Valine	0.54