



HULLED HEMP SEED (HHS)

PRODUCT OVERVIEW

Description:	Hulled hemp seed
Common Names:	Hulled hemp seed, shelled hemp seed, hemp heart
Ingredients:	Hulled hemp seed
Hemp Varieties:	Finola, CFX-1, CFX-2, CRS-1, Canma, Granma, Katani, Piccolo, X-59
Purity:	99.9%
Shelf Life:	24- months from date of manufacture
Storage:	Store in a cool, dry place, at ambient temperatures. 30-50% RH. Keep away from heat or light.
Packaging:	2,000 lb bulk tote bags, or 50 lb poly-woven bag with food grade 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= 0.61 (source***: House et al.)
Treatment:	No preservatives, no irradiation

TEST	SPECIFICATION	METHOD
ORGANOLEPTIC		
Appearance	Small white hulled seed with some green skin flecks	Internal SOP
Flavor & Odor	Slightly nutty	Internal SOP
MICROBIOLOGICAL		
Standard Plate Count (SPC)	< 250,000 cfu/g	AOAC 990.12
Total Coliform	< 500 cfu/g	AOAC 991.14
Yeast & Mold	< 4,000 cfu/g	AOAC 2014.05
<i>E. coli</i>	< 10 cfu/g	AOAC 991.14 / MFLP-30
<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)	0-4 meq/kg	NIR
Free Fatty Acid (FFA)	0-2% (as oleic acid)	NIR
Gluten***	< 20 ppm	ELISA
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
Total Fat %	48-54%	NIR

* Accreditations and certifications available upon request.

** Verification testing only, batch specific testing not performed. Batch-specific testing is available for additional charge.

*** 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)	610
Protein (g)	34.87
Carbohydrates (g)	6.86
Dietary Fiber (g)	4.91
Soluble Fiber (g)	1.44
Insoluble Fiber (g)	3.47
Total Sugars (g)	1.95
Added Sugar (g)	0
Sugar Alcohol (g)	0
Total Fat (g)	50.77
Saturated Fat (g)	4.86
Monounsaturated Fat (g)	6.58
Polyunsaturated Fat (g)	39.34
Omega 3 fatty acid (g)	9.04
Omega 6 fatty acid (g)	30.30
Omega 9 fatty acid (g)	6.56
Trans Fats (g)	0
Cholesterol (mg)	0
Total Polyphenols (mg)	NA

VITAMINS	per 100 g
Beta-Carotene (mcg)	0
Vitamin A (mcg)	0
Vitamin B1 (mg)	0.98
Vitamin B2 (mg)	0.20
Vitamin B3 (mg)	9.54
Vitamin B6 (mg)	0.60
Vitamin B9 Folic Acid (mcg)	149.80
Vitamin B12 (ug)	NA
Vitamin C (mg)	0
Vitamin D (mcg)	0
Vitamin E (Alpha-tocopherol) (mg)	NA
Vitamin E (Y-tocopherol mg)	3.13
Pantothenic Acid (mg)	NA

MINERALS	per 100 g
Sodium (mg)	0
Magnesium (mg)	656.46
Zinc (mg)	9.41
Phosphorous (mg)	1530.33
Potassium (mg)	1109.33
Calcium (mg)	62.63
Manganese (mg)	7.66
Iron (mg)	12.60
Copper (mg)	1.4

RADICAL SCAVENGING	%
DPPH Scavenging Activity (%)	NA

FATTY ACID PROFILE (%)	per 100 g
Myristic acid 14:0	NA
Palmitic acid 16:0	2.73
Stearic acid 18:0	1.37
cis-isomers C18:1	0.49
Oleic acid 18:1 n-9c/Elaidic acid 18:1 n-9t	5.89
Conjugated linoleic acid 18:2	0.02
Linoleic acid (LA) 18:2 n-6	28.16
Alpha-Linolenic acid (ALA) 18:3 n-3	8.33
Gamma-Linolenic acid 18:3 (GLA) n-6	2.11
Stearidonic acid (SDA) 18:4 n-3	0.67
Arachidic acid 20:0	0.49
cis-11-Eicosenoic acid 20:1	0.22
Behenic acid 22:0	0.20
Lignoceric acid 24:0	0.08

AMINO ACID PROFILE (%)	per 100 g
Alanine	1.19
Arginine	4.57
Aspartic Acid	3.33
Cystine	0.78
Glutamic Acid	5.35
Glycine	1.30
Histidine	0.68
Isoleucine	1.38
Leucine	2.23
Lysine	1.24
Methionine	0.91
Phenylalanine	1.67
Proline	1.60
Serine	1.61
Threonine	1.34
Tryptophan	0.29
Tyrosine	0.88
Valine	1.59