



DATA SHEET INCA INCHI OIL





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The Inca Inchi (*Plukenetia Volubilis Linneo*) is a plant originating from the Peruvian Amazon region which has been known to the natives for several thousand years. It was used by the Incas according to evidence provided by the pottery found in their tombs.

Current scientific studies indicate that Inca Inchi is the best oil plant because of its composition and high nutritional quality. Its oil has a high content of the essential fatty acids of Omega-3 (more than 48%) and Omega-6 (36%). It is highly digestible (more than 96%) and contains antioxidants: vitamin A and vitamin E (alpha-tocopherols). Over 60% of the degreased almond consists of full protein of high quality (94% digestible), rich in essential and non-essential amino acids, in amounts sufficient for the health.

The Omega Project of AGROINDUSTRIAS AMAZONICAS has been conceived so as to develop the Inca Inchi organic crops with good impact on the ecology of the Amazon, applying an adequate technology to the industrial process in order to preserve the high quality of oil and protein and to achieve good economic results in addition to operational advantages, improve the living standard of farmers, and contribute to the world's food and health.

1. PRODUCT: INCA INCHI OIL

2. DESCRIPTION

2.1 ORIGIN: The Inca Inchi Oil is extracted from selected seeds of *Plukenetia Volubilis Linneo*. It is a natural, additive-free, non-refined vegetable oil.

FAMILY	: Euphorbiaceae
GENDER	: Plukenetia
SPECIES	: Volubilis Linneo
SCIENTIFIC NAME	: Plukenetia Volubilis Linneo
COMMON NAME	: Sacha Inchi
COMMERCIAL NAME	: Inca Inchi

2.2 OBTENTION OF PRODUCT: Suitable mechanical pressing techniques authorized by the Codex Alimentarius are used in the oil production process. Such techniques do not alter the nature and neither the quality of the oil.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS:

3.1 INGREDIENTS: 100% Sacha Inchi seed oil, *Plukenetia Volubilis Linneo* (common name Sacha Inchi)



3.2 FATTY ACIDS COMPOSITION

Palmitic fatty acid	C 16:0	:	3-5 %
Stearic fatty acid	C 18:0	:	2-4 %
Oleic fatty acid, Omega 9	C18 :1 (n-9)	:	8-10 %
Linoleic fatty acid, Omega 6	C18 :2 (n-6)	:	30-40 %
Alpha-Linolenic fatty acid, Omega 3	C18 :3 (n-3)	:	45-55 %
Total Saturated fatty acid.		:	< 7
Total Polyunsaturated fatty acids.		:	> 80 %
Total Unsaturated fatty acid.		:	>90 %

3.3 ANTIOXIDANTS:	Vitamin A	:	> 565 ug
	Vitamin E	:	> 10 mg/100gr

3.4 QUALITY CHARACTERISTICS

3.4.1 COLOR, SMELL, AND FLAVOR

Color: clear, ranging from strong yellow to golden amber.

Odor: slightly of bean, characteristic of the variety.

Flavor: slightly of bean, characteristic of the variety.

3.4.2 Acid value	:	< 2%
3.4.3 Peroxide value	:	< 15 meq O ₂ /kg
3.4.4 Moisture And Volatile	:	< 0.2 %
3.4.5 Contents of Impurities	:	< 0.05 %
3.4.6 Trans Fatty Acid Content	:	< 0.5 %
3.4.7 Iodine Value	:	> 180
3.4.8 Saponification Value	:	> 180

Nutrition Facts		
Serving Size 1 Tbsp (8 ml)		
Servings per Container About 31		
Amount per serving		
Calories 83		
Calories from Fat 83		
% Daily Value *		
TOTAL FAT	7.96 g	99.50%
Saturated Fat	0.56 g	7%
Trans Fat	0 g	0%
Omega 3	3.84 g	48%
Omega 6	2.88 g	36%
Omega 9	0.72 g	9%
Unsaturated Fat	7.44 g	93%
Cholesterol	0 mg	0%
Sodium	0 mg	0%
Total Carbohydrate	0 g	0%
Protein	0 g	0%
Vitamin A 0.681% Vitamin E 0.017%		
Not sufficient source of dietary fiber, sugars, Vitamin C, Calcium and Iron.		
* Percent Daily Values are based on a 2,000 calorie diet.		
NO ADDITIVES – NO PRESERVANTS		
CHOLESTEROL FREE		
MADE AND PACKED BY:		
AGROINDUSTRIAS		
AMAZONICAS		

4. FOOD ADDITIVES : Non admitted

5. SHELF LIFE AND CONSERVATION:

Twenty four months, depending to conservation conditions. Keep the oil in a fresh and dry place, away from sunlight and heat. Once the packing has been opened, use the oil within the following thirty days. The Inca Inchi oil has good stability due to the natural antioxidants, such as carotene and alpha-tocopherols, existing in its composition; this possess advantage for its stability and for preservation of its nutritional qualities, aroma and flavor.

6. CERTIFICATIONS





7. PACKAGING

INCA INCHI OIL IN BOTTLES



INCA INCHI OIL BOTTLES IN BOXES



INCA INCHI OIL DRUMS 65 Liters



INCA INCHI OIL DRUMS 216 Liters





Product	Container Dimensions mm.	Net Weight Container Kg.	Net Weight Oil Kg.	Total Gross Weight Kg.
Inca Inchi Oil Glass bottle: Net content 250 ml	47x47x217	0.311	0.231	0.542
Inca Inchi Oil Box with 30 glass bottles 250 ml	275x325x235	10.060	6.940	17
Inca Inchi Oil Cylinder: net content 65 liters	363 Ø x 680	7.4	60.2	67.6
Inca Inchi Oil Cylinder: net content 216 liters	580 Ø x 880	16	200	216

8. TRANSPORT



Packages Per Pallet				
Packages	Units	Liters	Pallet Dimensions	Gross Weight (Included Pallet weight) Kg
Box with 30 glass bottles	108	810	100x110x223	1,876
Drums net content 65 liters	9	585	110x110x80	608.40
Drums net content 216 liters	4	864	116x116x100	904
Pallets Per Container FCL 20"				
Packages	Pallets	Units	Liters	Gross Weight
Box with 30 glass bottles	10	1080	8,100	18,760
Drums net content 65 liters	20	180	11,700	12,168
Drums net content 216 liters	20	80	16,640	18,080
Pallets Per Container FCL 40"				
Packages	Pallets	Units	Liters	Gross Weight
Box with 30 glass bottles	14	1.512	11,340	26,264
Drums net content 65 liters	40	360	23,400	24,336
Drums net content 216 liters	30	120	25,920	25,920



9. ITS IMPORTANCE IN DIETETICS AND HEALTH

The Inca Inchi oil has excellent dietetic properties. It contains a large amount of the two essential fatty acids: **Alpha-Linolenic Omega-3 Acid** and **Linoleic Omega-6 Acid** (84%). These acids do not abound in nature and are vital for health care and prevention, their **function is to control and reduce cholesterol, the main cause of mortality in the world**; they are, likewise, essential for nervous tissue (myelination) and ocular tissue development and participate in cell wall structure formation. Some hormones are produced from essential fatty acids and play a most important role in controlling blood pressure, kidney function, immune function, the addition of platelets, thus, they are essential for blood clotting and important in inflammatory processes and allergic response. The deficiency in essential fatty acids produces visual disturbances, arteriosclerosis, cardiovascular accidents, infarct, etc.

The Inca Inchi oil is excellent domestic, industrial, cosmetic, and medicinal oil. It is very rich in unsaturated fatty acids (93%) and its contents of saturated fatty acids (6.39%) are extremely low; even better than in oilseeds used worldwide in the production of oils destined for human consumption, as illustrated in the table herein below:

CONTENTS OF OIL AND PROTEIN OF OILSEEDS

NUTRIENTS	S E E D S							
	INCA INCHI	OLIVE	SOY	CORN	PEANUT	SUNFLOWER	COTTON	PALM
PROTEINS	33	1.6	28	9.4	23	24	32	16
TOTAL OIL	54	22	19	5.7	45	48	16	51
PALMITIC Saturated	3.85	13	10.7	11	12	7.5	18	45
STEARIC Saturated	2.54	3	3.3	2	2.2	5.3	3	4
TOTAL SATURATED	6	16	14	13	14	13	21	49
OLEIC Omega 9	8.28	71	22.3	28	43.3	29.3	18.7	40
LINOLEIC Omega 6	36.8	10	54.5	58	36.8	57.9	57.5	10
LINOLENIC Omega 3	48.6	1	8.3	1	0	0	0.5	0
ESSENTIAL FATTY ACIDS	84.86	11	62.8	59	36	57.9	58	10
TOTAL UNSATURATED	93.6	83	85.1	87	80.1	87.72	76.7	50

Source: AGROINDUSTRIAS AMAZONICAS, 2001 (APPROXIMATE VALUES)

