



## WHOLE OAT FLAKES

### "Hojuela Integral de avena"

#### 1. Product Description:

Product of oat grains (Avena Sativa or Avena Bizantina, L.), previously cleaned, shelled, stabilized, which have been laminated to form whole, uniform flakes, without detachment of particles and without additives.

**2. Uses:** The product can be used for direct consumption, in the preparation of cookies, cereal bars, and grinding to produce oatmeal.

**3. Composition:** 100% Natural oat grains. May contain allergens such as traces of wheat or barley gluten.

#### 4. Organoleptic characteristics:

Characteristic	Sensory evaluation
Appearance	Rounded shape, smooth edges, oval, compact without detachment of particles and of uniform size.
Color	White with light brown tones
Smell	Characteristic of toasted oats and free of strange aromas.
Flavor	Characteristic, free of foreign flavors.

#### 5. Physical-chemical characteristics:

Parameter	Limit	Method
Humidity (%/max)	11.0	NCh 841 Of.1978
(*) Thickness(mm)	Between 0.700-0.950	internal method
(**) Tyrosinase enzyme	Negative in 15 minutes	internal method
(**) Peroxidase enzyme	Negative in 3 minutes	internal method
Lipase Enzyme	Negative in 60 minutes	internal method
Ashes (%)	2.0	NCh 842 Of. 2018
<b>Characteristics in 100 grams</b>		
Whole grains(units/max.)	03	internal method
Shells(unit/max.)	03	internal method
Needles(pcs/max)	02	internal method
Wheat flakes(unit/max.)	05	internal method
Strange seeds(unit/max.)	02	internal method
Gelatinized flakes (units/max.)	05	internal method
Stained flakes (units/max.)	05	internal method

(\*) Final thickness: It will be set according to the customer's specification, within the mentioned range.

(\*\*) Analysis of Enzymes at Customer Request.

## 6. Granulometry:

Parameters	Limit	Method
Retention on US No. 7 mesh (2830 microns) (% min.)	96	internal method
Retention on US No. 25 mesh (707 microns) (% max.)	3	internal method
Under US No. 25 mesh (707 microns) (% max.)	1	internal method

## 7. Mycotoxins:

According to decree 977/96, article

Parameter	Maximum limit	Method
Aflatoxin B1, B2, G1, G2 (***)	10 µg/kg (CL) /04 µg/kg (CO)	LC-MS/MS
Zearalenone (***)	200 µg/kg(CL)/ 75 µg/kg (CO)	LC-MS/MS Quechers
Ochratoxin A	5 µg/kg	LC-MS/MS
Deoxynivalenol	750µg/kg	LC-MS/MS Quechers
Pesticides	In accordance with exempt Resolution 892, which approves technical standard 209 of 05.29.2021	GC-MS/MS LR-03.10

(\*\*\*) Limit for Colombia of Total Aflatoxins is 4 µg/kg and Zearalenone is 75 µg/kg.

## 8. Microbiological characteristics:

According to decree 977/96, article 176 - 5.1

Parameter (*) n=5	Limit "n"	Limit "M"	Tolerance "c"	Method
Molds (CFU)	10 <sup>3</sup>	10 <sup>4</sup>	2	NCh2734 Of. 2002
Yeasts (CFU)	5x10 <sup>2</sup>	5x10 <sup>3</sup>	2	NCh2734 Of. 2002
Salmonella (in 50 grams)	0	0	0	NCh2675 Of. 2002
RAM (CFU)	10 <sup>3</sup>	10 <sup>4</sup>	2	NCh2659 Of. 2002
Total coliforms (NMP)	<3	20	2	NCh2635/1 Of. 2001
E. coli (NMP)	<3	-	0	NCh2636 Of. 2001

## 9. Heavy Metals:

According to decree 977/96, article 160-161, and customer

Parameter	Maximum limit	Method
cadmium (****)	0.1mg/kg (CO)	ICP-MS LI-00.848-03
Lead (****)	0.5mg/kg (CL)/ 0.2mg/kg (CO)	ICP-MS LI-00.848-03
Mercury	0.10mg/kg	ICP-MS LI-00.848-03
Copper	10mg/kg	ICP-OES
Selenium	0.3mg/kg	ICP-MS LI-00.848-03
Zinc	100mg/kg	ICP-OES

(\*\*\*\*) Cadmium at Customer Request (Colombia), Lead Chilean legislation limit is 0.5 mg/Kg and Colombian legislation the limit is 0.2 mg/Kg.

## 10. Nutritional Information:

Serving: ½cup(35g) Approximate Serving Per Container: About 714 servings	100g	1 Serving
Energy (Kcal)	363	127
Proteins(g)	11.4	3.9
Total Fat(g)	9.9	3.4
Saturated Fatty Acids(g)	1.6	0.56
Monounsaturated Fatty Acids(g)	4.5	1.5
Polyunsaturated Acids(g)	3.8	1,3
Trans Fatty Acids(g)	0	0
Cholesterol	0	0
Carbohydrates (g)	57	19.9
Total Sugars (g)	1,2	0.4
Total dietary fiber (g)	11.9	4.1
Soluble fiber (g)	1.4	0.4
Insoluble fiber (g)	10.5	3.6
Sodium (mg)	3.3	1.1

### 11. Vulnerable groups:

People with celiac disease or gluten intolerance.

### 12. Declaration GMO (genetically modified organisms):

Harvest 2023 raw material oats do **not contain** Genetically Modified Organisms, according to report no. 651-202303 held on April 11, 2023 at the Institute of Nutrition and Food Technology INTA, Applied Genomics Laboratory, University of Chile.

### 13. Shelf life:

From the time it is made, its useful life is 12 months under the storage conditions recommended in point 14.

### 14. Storage conditions:

The product must be stored in a closed place, with ventilation, protected from direct sunlight, ideal temperature between 18 and 25°C, relative humidity 60%, free of rodents, insects, crawling and/or flying pests, separated from chemical products, water, humidity, or others that contaminate the product in a physical, chemical, or biological way, it is recommended to keep the product on a rack or pallet.

## 15. Packaging Presentation:

Container	General characteristics
<b>Packaging type 1:</b>	Thermolaminated polypropylene, 25 and 22,68 kg. (50 lbs.)
<b>Impression:</b>	White background container with printing (Corporate design) or at the request defined by the client.
<b>Sealed:</b>	Double edge, with white thread, one seam.
<b>Type of container 2 (****):</b>	Thermoformed polyethylene of 60 gr.; 1 Lb (454 gr.); 42 Oz (1190 gr.)
<b>Impression:</b>	Transparent packaging with printing (Corporate design) or at the request defined by the client.
<b>Sealed:</b>	Thermal
<b>Packaging type 3:</b>	White Big-Bag with loading and unloading mailbox, weight 500 kg. net. On a wooden pallet of dimensions 1 x 1 mts or slip sheet.
<b>Impression:</b>	No Printing.
<b>Sealed:</b>	The Big-Bag features a built-in closure to securely tie the mouthpiece.

(\*\*\*\*) Printing formats and designs to be defined with the client.

## 16. National and international distribution system:

### Transportation way

**National office:** Dry transport, with a maximum capacity of 29 Ton.

**International Dispatch:** Dispatched and/or consolidated in a 20" and 40" hermetic container exclusively for the transport of food, therefore, we ensure that the product will not be contaminated with foreign agents.

## 17. Traceability, Lot Number Identification

BATCH:	CODE COUNTRY	WEEK YEAR	DAY	MONTH	YEAR
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The country code was established according to the ISO 3166-1 alpha-2 system.

[http://utils.mucattu.com/iso\\_3166-1.html](http://utils.mucattu.com/iso_3166-1.html)

## 18. Certifications:

**Kosher, effective from February 1, 2018**

Whole Oat Flakes UKD ID-OUV3-AFAE943

Produced by: Yoselin Baeza Cea	Approved by: Armando Berdichevsky	Last update
Position: Head of Quality Control and Safety	Position: South Zone Manager	19-04-2023
Created Date: April 2018	Date: April 2018	Version: 7

## 19. Control of documents:

Date	Change identification	Version
04-03-2018	Technical Sheet Creation	01
06-20-2018	GMO update	02
03-20-2019	The control of Fungi and Yeast is incorporated, point N° 8; Product description, point No. 1, is updated; Tyrosinase enzyme control is incorporated, item No. 5; The nutritional information is updated, according to the analysis of the product for the year 2019, point 10; Temperature and relative humidity is incorporated, in Storage conditions, point 14; Other formats are incorporated in sack packaging, and big-bag, point No. 15; Version No. 03 is reviewed and approved.	03
02-06-2020	Code is modified, point 12 of the GMO declaration is modified, point 5 is added (**) Peroxidase Enzyme (**) Enzyme analysis at the request of the Client, method reference is modified to Internal Method, point 8 is reviewed and improved Microbiology (units of measurement). Storage conditions are added in point 13 Shelf Life. Point 17 Traceability, Identification of Lot Number was added. The control of spaces was improved throughout the document.	04
04-06-2021	Point No. 12 is updated, GMO organism according to the last control on March 19, 2021; Point 5 is updated, flake thickness range from 600 to 1,100 mm	05
02-01-2022	Point 18 is updated, Kosher certification update	06
19-04-2023	Limits and Methods are updated in points 5, 7 and 9. GMO information is updated Document Code is updated. Product name in Spanish is updated. Point 15 is updated. Complete format of the document is updated.	07

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