

Specification: MC 8632 – Whole hazelnut kernels medium roasted- Garri

Repacked in Belgium in 10 x 1kg PET per carton. 30 boxes on a pallet with a shelf life of 8 months

1 DESCRIPTION

The nut kernels of shrubs or small trees of hazel *Corylus avellana*. After removal of the shell, clean, sound kernels of even shape, size and color are medium roasted and calibrated.

2 COMPOSITION

100% Hazelnuts

3 ANALYTICAL REQUIREMENTS AND CHARACTERISTICS

3.1 Physical

Parameter	Value / Tolerance / Unit	Test Method/Technique Used*
Over Size	≤5%	Based On Mechanical sieving ISO 2591-1:1988
Under Size	≤5%	Based On Mechanical sieving ISO 2591-1:1988
Attached Skin	5% max or according to customer spec.	Based On ISO 4149:2005
Over Roasted / Burnt	1% max	Based On ISO 4149:2005
Mechanically damaged	10% max	Based On ISO 4149:2005
Not fully developed e.g. shriveled, shrunken, stained	4% max	Based On ISO 4149:2005
Broken pieces, crushed, twins	5% max	Based On ISO 4149:2005
Rotten, moldy, rancid, concealed mould, bitter and yellowish	1.5% max	Based On ISO 1114-1997, ISO 4149
Foreign matter		
Glass, metal, stones, hard plastic	0	Based On ISO 4149:2005
Nut shells, in-shell	≤10 /1000 Kg. Target: 0	Visual inspection & evaluation

3.2 Chemical

Parameter	Value / Tolerance / Unit	Test Method*
Moisture	1.5-2.5%	Based On ISO 665:2000
Free Fatty Acids (As oleic acid)	from Sep. until Mar. 0.5% from Apr. until Aug. 1%	Based On IUPAC 2.201 and ISO 660:2009
Peroxide Value	1 meqO ₂ /kg max	Based On IUPAC 2.501 (as amended) and ISO 3960:2007
Fat Content	55-65%	Based On Soxhlet (Reference method) ISO 659:2009
Aflatoksin B ₁ content	<5 ppb	Based On DIN EN 12955:1999 (by HPLC) EC 401/2006
Aflatoksin content B ₁ + B ₂ + G ₁ + G ₂	<10 ppb	Based On DIN EN 12955:1999 (by HPLC) EC 401/2006

3.3 Microbiological

Parameter	Test Method**	Sampling Plan		Limits	
		n	c	m	M
Aerobic plate count (APC) * at 30 °C	Based On ISO 4833:2003	5	2	5000 cfu/g	50000 cfu/g
Moulds at 25 °C	Based On ISO 21527-2:2008	5	2	50 cfu/g	500 cfu/g
Yeast at 25 °C	Based On ISO 21527-2:2008	5	2	50 cfu/g	500 cfu/g
Coliforms	Based On ISO 4832:2006	5	1	10 cfu/g	100 cfu/g
Enterobacteriaceae	Based On ISO 21528-2:2004	5	1	10 cfu/g	100 cfu/g
Staphylococcus Aureus	Based On ISO 6888-1:2003	5	0	0/g	0/g
Escherichia coli	Based On ISO 7251:2005	5	0	0/g	0/g
Salmonella	Based On ISO 6579:2002	10	0	0/25g	0/25g

Sampling Plan

n = No of sample units taken from a lot, which is a quantity of product produced under identical conditions during a particular time interval on a particular processing unit.

m = A microbiological criterion which in general represents the typical acceptable level reflecting Good Manufacturing Practice (GMP), thus separating good quality from marginal acceptable quality.

M = A microbiological criterion which is the maximum level tolerated and separates marginally acceptable quality from rejectable quality.

c = The maximum allowable number of marginal units between *m* and *M*. When more than this number is found, the lot is rejected.

*Note: Aerobic Mesophilic Count (AMC), Aerobic Plate Count (APC), Standard Plate Count (SPC), or Total Viable Count (TVC) are equivalent terms used to express counts aerobic mesophilic microorganisms.

**Test methods: Documented in-house methods.

4 SENSORY REQUIREMENTS

4.1 Taste

Characteristic, clean; no off-flavor and off-taste (e.g. rancid, bitter)

5 SHELF LIFE

	Duration	Temperature	Humidity	Additional Details
Shelf Life	12 Month	5 to 18 °C	50-60% RH	Vacuum sealed goods

6 TRANSPORT AND STORAGE

6.1 Transport

Hazelnut kernels must be transported under clean and sound hygienic conditions. Transport conditions have to guarantee integrity and quality of the goods that has to be protected from atmospheric agents, infestation, condensation, dust and from everything that can jeopardize the quality.

6.2 Storage Conditions

Hazelnut kernels should be stored in a cool, dry area at a temperature of maximum 18 °C and a relative humidity of max 60%, away from sunlight and strong odors.

7 GENERAL PACKING

All packing materials must be suitable for food products. Hazelnut kernels shall be packed in new, clean, food grade packages as per customer specifications.

8 LEGAL REQUIREMENTS

The product shall comply with all relevant applicable legislation governing its composition, labeling, additives, packaging, contaminants, pesticides and other aspects of the buying countries such as Turkey, EU, Switzerland, USA, Canada, Japan, Russia, Australia, etc.

9 METAL DETECTION

All products shall be checked by in-line metal detectors to assure absence of ferrous (max. 1mm), non-ferrous (max. 1mm) and stainless steel (max 1.5mm).

Intolerance Data

Ingredients and derivates causing hypersensitivity according to EU legislation.	Used in the product (incl. as carrier for additives, carry over additives, processing aid).			Able to cross contaminate the product?	
	Yes	No	?	Yes	No
Cereals containing gluten and products thereof (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains)		X			X
Crustaceans and products thereof		X			X
Eggs and products thereof		X			X
Fish and products thereof		X			X
Peanuts and products thereof (inc. oil)		X			X
Soybeans and products thereof (inc. lecithin)		X			X
Milk and products thereof (inc. lactose)		X			X
Nuts and products thereof (incl. oil)					
- Hazelnut	X				
- Walnut		X		X	
- Almond		X		X	
- Cashew		X		X	
- Pecan nut		X		X	
- Brazil nut		X		X	
- Pistachio nut		X		X	
- Macadamia nut		X			X
Celery and products thereof		X			X
Mustard and products thereof		X			X
Sesame and products thereof (inc. oil)		X			X

Sulphur dioxide and sulphites at concentrations of more than 10mg/kg or 10mg/l expressed as SO ₂		X		X	
Lupine and products thereof		X			X
Molluscs and products thereof		X			X

11 DIETARY DATA

Suitable for Vegans	✓
Suitable for Vegetarians	✓
Suitable for Lacto-ovo Vegetarians	✓
Suitable for Lacto Vegetarians	✓
Suitable for Muslim	✓
Suitable for Jewish	✓

No Artificial Sweeteners	✓
No Artificial Colors	✓
Free from Antioxidants	✓
Free from Preservatives	✓
Free from Gluten	✓
Free from GMO	✓

12 NUTRITIONAL DATA

Nutrition	Content
Energy	646 kcal
	2705 kJ
Protein	15 g
Cholesterol	0 mg
Total Carbohydrate	17.6 g
Dietary Fiber	9.4 g
Total Fat	62.4 g
Saturated Fat	4.5 g
Monounsaturated Fat	46.6 g
Polyunsaturated Fat	8.5 g
Total Trans Fatty Acids	0 g
Total Omega-3 Fatty Acids	60.0 mg
Total Omega-6 Fatty Acids	8403 mg
Source: Nutrient data for this listing was provided by USDA SR-21. Amounts per 100 grams.	

Nutrition	Content
Vitamins	
Vitamin A	61.0 IU
Vitamin C	3.8 mg
Vitamin E	15.3 mg
Vitamin K	- mcg
Thiamin	0.3 mg
Riboflavin	0.1 mg
Niacin	2.1 mg
Vitamin B6	0.6 mg
Minerals	
Calcium	123 mg
Iron	4.4 mg
Magnesium	173 mg
Phosphorus	310 mg
Potassium	755 mg
Zinc	2.5 mg

Sugar : 5g

The supplier hereby declares that all products delivered to Markelbach & Corne comply with all relevant European and Belgian legislation, as for instance:

Contaminants: EC/1881/2006 (and amendments): setting maximum levels for certain contaminants in foodstuffs
Material coming into contact with food: EC/1935/2004 regarding packaging (and amendments) and EC/10/2011.

Food information and allergens: EC/1169/2011 and amendments

Pesticide residues: EC/396/2005, 2007/7/EG, 86/362/EEG, 90/642/EEG and their amendments.

Coating materials: BPA and others EC/1895/2005 of 18 November 2005 on the restriction of use of certain epoxy derivatives in materials and articles intended to come into contact with food

GMO DECLARATION :

The undersigned, declares and certifies that this product is GMO free, and is thus not included within the application of the scope of EC 1829/2003, regarding genetically modified foods and animal feed, nor of EC 1830/2003, regarding traceability and labelling of GMO and traceability of products derived from genetically modified foods.

DECLARATION OF NON-IONISATION & NON-IRRADIATION:

The undersigned, declares and certifies that this product has not been radiated or is not treated in any way by Ionising rays.

Validation

(Electronically) Created by:	(Electronically) Validated by:
AA Quality	WF QC
Date: 02/06/2021	Date: 14/06/2021
Version Number	V06.2021