



**Ten Senses Africa Ltd.
Product Specifications**

1. Description: Macadamia nut oil, organic, hot pressed and refined, packed in 180 kg steel drums.

2. Origins: Macadamia nuts from East Africa, sourced from the Kenya highland regions of Mt. Kenya and Taita Taveta, as well as Rwanda.

3. Definition: Fatty oil from the seeds of macadamia tetraphylla and macadamia integrifolia, hot-pressed and refined according to EC 834/2007 on organic products.

4. Agent Ten Senses Ltd
Dobšinského 14
811 05 Bratislava, Slovakia
Allan Bussard, Marketing Director
Tel +421 903 419 216 (Europe)
Email allan.bussard@tensenses.com
Web www.tensenses.com

5. Producer: Ten Senses Africa Ltd
Gatsi Warehouses, Number 1
Athi River, Mombasa Road
P.O Box 774-00204
Nairobi , Kenya
Frank Omondi, Managing Director
Tel +254 722 214 932
Email frank.omondi@tensenses.com

6. Physical Properties:

Appearance	Clear or light amber
Flavour and Aroma	Weak to mild nutty
Foreign matter	Clean of shell and other foreign matter
Anorganic dirt	Without the presence of anorganic contaminants
Metal pieces	Without the presence of metal pieces
Pests	Without the presence of living or dead insects of any kind
Solubility	Insoluble in water, slightly soluble in ethanol
Solidification point	-12 degrees C.
Melting point	4 C
Smoke point	210 C
Flash point	> 400 C
Refractive Index (40° C)	1.466-1.470
Unsaponifiable matter	Max 1.5%
Viscosity	Low
Density (25°C)	0.911-0.918
Saponification value	190-200

7. Fatty Acid profile (typical)

Saturated fatty acids	<C 14	<1.0%
Oleic	18:1	60%
Palmitoleic Acid	16:1	16-24%
Linoleic Acid	18:2	2%
Linolenic Acid	18:3	2%
Behenic Acid	22:0	max. 1.0%
Palmitic	16:0	8%
Gondoic	20:1	2.5%
Stearic	18:0	3%
Arachidic	20:0	2.7%
Myristic	14:0	<1%
All other fatty acids		<1%

8. Nutritional Information: (per 100 g)

Parameter	Specific element	Value/100 g
Energy value		3071 kJ
		37.25 kcal
Protein		0 g
Carbohydrates	sugar	0 g
	starch	0 g
Fat	Saturated fatty acids	14 g
	Polyunsaturated	1 g
	Monounsaturated	85 g
Cholesterol		0 g
Minerals	potassium	0 g
	Sodium	0 g

9. Microbiological:

Criteria	Value/Unit	Norm
Aerobic Plate Count (APC)	10,000/g max	TES/MIC/TM/08
Coliforms	0 KTJ/1g	TES MIC/TM/07
E. Coli	0 KTJ/1g	TES/MIC/TM/17
Listeria monocytogenes	negat 25 g	EU ENISO11290-1
Mould	<1x10 ² KTJ/1g	TS/MIC/TM/11
Salmonella spp.	negat 25 g.	TES/MIC/TM/08
Staphylococcus (coagulase positiv)	<5x10 ¹ KTJ/1g.	EU ENISO6888-1
Yeast		TES/MIC/TM/17

10. Chemical:

Criteria	value/unit	Norm
Moisture	<2.5%	KS 01-868:1989
Aflatoxin B1	<0,2µg/kg	TES/06/TM/30
Aflatoxin B2	<0,2µg/kg	TES/06/TM/30
Aflatoxin G1	<0,2µg/kg	TES/06/TM/30
Aflatoxin G2	<0,2µg/kg	TES/06/TM/30
Peroxide	<4 meq O2/ kg max	KS 05-327
Lead	1 mg/kg max	
Antioxidants	Polyphenols	
Iodine	70-80 Wijs	

11. Product suitability:

Dietary requirement	Acceptable yes/no	notes
Coeliac	Yes	No gluten in product, no gluten in production line. No guarantee against cross-contamination during post-shipment handling.
Vegetarian	Yes	No animal products in product, no animal products in production line. No guarantee against cross-contamination during post-shipment handling.
Vegan	Yes	No animal products in product, no animal products in production line. No guarantee against cross-contamination during post-shipment handling.
Lactose intolerant	Yes	No dairy products in product, no dairy products in production line. No guarantee against cross-contamination during post-shipment handling.
Kosher	Yes	Not certified
Halal	Yes	Not certified

12. Allergen data:

Product	In product Y/N	In factory Y/N	On same production line Y/N	Stored in same warehouse Y/N
Peanuts and peanut derivatives	No	No	No	No
Nuts and nut derivatives (almond, hazelnut, walnut, cashew, pecan, Brazil nut, pistachios)	Macadamia	Macadamia, cashew	Macadamia, cashew	Macadamia, cashew
Sesame and derivatives	No	No	No	No
Mustard	No	No	No	No
Milk and derivatives	No	No	No	No
Gluten (wheat, rye, barley, spelt)	No	No	No	No
Soya and derivatives	No	No	No	No
Lupin and derivatives	No	No	No	No
Fish and derivatives	No	No	No	No
Crustaceans and molluscs	No	No	No	No
Sulphites	No	No	No	No
Celery	No	No	No	No

13. Genetic Modification:

GMO	Yes/no	If yes, what?
Does the product contain viable or unviable GM material?	No	
Is the product produced from GM material?	No	
Has the product been changed as a consequence of GM?	No	
Have GMO been used as aids or additives with the product?	No	

14. Certificates:

HACCP Kenya Bureau of Standards
ISO 22000 SGS

FLO-CERT (Fair Trade)
Ten Senses Africa Ltd (Producer) FLO-CERT ID 21357

Organic
EU Regulation on organic agriculture EC 834/2007

15. Packaging:

Net wt. / steel drum:	180 kg +/- 3 kg
Gross wt. / steel drum:	210 kg +/- 3 kg
Dimensions:	Height 920 mm Diameter 500 mm Body thickness 0.7 mm Top/bottom thickness 0.6 mm
Labelling	drums sealed, with expiry date, batch code, consignee, shipper, origin and certification indicated on outside.
Lots	Lot no format Certificate (FLO/CON)/Julian date/LOTX/XX (farmer group)/DX (dryer no.)

16. Shipping and Storage:

Not to be shipped in same container as odour producing substances.
Best stored at less than 5 degrees C, relative humidity of 60-70%

17. Shelf Life:

12 months with proper storage in steel drums. Use within 2 months of opening. Avoid exposure to UV light.

18. Delivery Enclosures:

Export licence
Phytosanitary certificate
Certificate of origin
EU 1 or US FDA registration
Laboratory certificates of analysis
Invoice
Bill of lading

19. Shipping Volumes:

FCL volumes (20' container): 98 drums = 17 640 kg net, 18 620 kg gross.

20. Seller declaration:

The seller guarantees that this product has been subject to quality inspections during the production process to ensure a clean and safe product which complies with EU and USDA norms. The seller reserves the right to modify this specification at any time.

Specification TSA MACOIL 2016.01
Valid at 10 March 2016