

 Food Safety Manual	PROD SPEC: Macadamia Oil
	Revision: 01
	Issue Date: 9 Oct 2024
Product Specification: Virgin Macadamia Oil (Food Grade)	Page 1 of 5

General requirements:

Virgin Macadamia oil is extracted from non-genetically modified (hereafter referred to as non-GMO) varieties of Macadamia nut kernels. All processing, storage and transportation is done in accordance with the requirements of the South African National Standard (SANS) 10049:2019: Food Hygiene Management.

Ingredients:

Macadamia oil

Processing aids:

Soya hulls are used to facilitate the pressing process.

Packing:

The product will be placed in a modified atmospheric condition and each bottle/drum will be flushed with food grade Nitrogen (N50) $\leq 99.99\%$ during packing.

The product will be packaged in 500ml, 1 litre, 5 litres and/or 120L drum container.

Each packaging unit will be identifiable by a label containing the brand name, product name, best before date, nett weight, and bar code.

Country of origin:

South Africa

Intended use:

Cosmetic / Pharmaceutical / Food

Product Description:

Physical and Technological description	Macadamia Nut Oil
Legal Description/suggested labelling description	Vegetable oil (Macadamia)

Physical Appearance / Characteristics				
Light golden coloured macadamia oil				
1.	Physical properties	Unit	Specification	Test method
1.1	Density at 20 °C	kg / liter	0,926	Gravimetric
1.2	Refractive index at 20 °C		1.466 – 1.470	
1.3	Colour Gardner		max 2,5	

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2.	Chemical properties			
	Peroxide value	mEq/kg	max 3,0	AOCS
	Acid value	mg KOH/g	max 2.0	AOCS
	Iodine value	gI2/100 g	70 – 80	AOCS
	Saponification value	mg KOH/g	190 – 200	AOCS
	Unsaponifiable matter	% (m/m)	Max 1,5	AOCS
3.	Fatty acid composition			
	Free Fatty Acids	%	max 2.0	AOCS
	14: 0 Myristic acid	%	max 1.5	AOCS
	16: 0 Palmitic acid	%	8.0 – 10.0	AOCS
	16: 1 Palmitoleic acid	%	16.0 – 24.0	AOCS
	18: 0 Stearic acid	%	2.0 – 4.0	AOCS
	18: 1 Oleic acid	%	53.0 – 67.0	AOCS
	18: 2 Linoleic acids	%	1.5 – 4.0	AOCS
	18: 3 Linolenic acids	%	max 0.5	AOCS
	20: 0 Arachidic acid	%	1.5 – 3.0	AOCS
	20: 1 Eicosenoic acid	%	1.5 – 3.0	AOCS
	Other fatty acids		max 4.5	AOCS
4.	Microbiological Specifications			
	Total Aerobic Plate Counts		20000 CfU/g	ISO4833
	Yeast & Mould		20000 CfU/g	ISO21527
	Coliforms		300 CfU/g	ISO4832
	Escherichia coli		Not detected	ISO16649
	Salmonella spp.		Not detected	ISO6579
5.	Packaging			
	210L Drums, 5L/1L/ 500ml plastic bottles gas flushed with LASAL ALPHAGAZ 1 NITROGEN.			
6.	Transportation requirements			
	General cargo, not dangerous, not classified under RID/ADR/IMDG			
7.	Shelf life			
	12 Months from date of packing for Macadamia oil, provided that the product is handled and stored in accordance with the specified storage conditions.			



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Allergens

Macadamia nut oil, tree nut allergen.

Soya hulls, Soya allergen

Food / Component	Present (Yes/No)
Aspartame	No
Glutamates (MSG)	No
Tartrazine	No
Phytosterol esters / stanols	No
More than 10% of final product irradiated	No
Herbs and botanical extracts If 'yes', please specify	No
Isomaltulose	No
Polyols, Isomalts, Polydextrose (Lactitol, Maltitol, Maltitol syrup, Mannitol, Xylitol, Erythritol, Isomalt, Polydextrose, Sorbitol). If 'yes', please specify type/s and levels	No

Nutritional Information

Nutrient	Average quantity per 100
Moisture	<0.1g
Total Ash	<0.02 g
Energy	3693 kJ
Carbohydrate	<1 g
Sugars	<0.1 g
Fat, total	99.8 g
Saturated	16.4 g
Monounsaturated	80.2 g
Polyunsaturated	3.2 g
Trans fatty acids	<0.1 g
Cholesterol	<5 mg
Dietary fibre, total	<0.1 g
Sodium	4 mg

Data source: As per Microchem Reference Number: 2022-11-09-016

Microchem external Accredited laboratory: SANAS T0393

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Dietary auditability

	Yes/No	If yes, additional information must be inserted
Vegan Suitable (No meat, milk, eggs, honey)	Yes	No meat, milk, eggs, or honey
Lacto Vegetarian Suitable (contains egg)	Yes	No eggs
Ovo Vegetarian suitable	Yes	No milk
Ovo Lacto Vegetarian suitable (contains milk and egg)	Yes	No milk, no eggs
Halaal suitable	No	
Kosher Suitable	Yes	
Organic Certified	No	
Hindu Suitable (contains no beef)	No	

Food irradiation/Sterilisation/Microbial reduction steps

Has this product or any of its components been treated with:	Yes/No
Microbial reduction heating	No
Steam sterilisation	No
Ionising radiation	No
Ethylene oxide	No
Other fumigants or sterilants	None

Contaminants & Residues (pesticides/heavy metals/veterinary residues/marine biotoxins etc)

This product complies with	Yes/No
R246 of 11 February 1994 (Regulations governing the maximum limits for pesticide residues that may be present in foodstuffs)	Yes
R1809 of 3 July 1992 (Regulations governing the maximum limits for veterinary medicine and stock remedy residues that may be present in foodstuffs)	Yes
R500 of 30 April 2004 (Regulations relating to maximum levels for metals in foodstuffs)	Yes
R491 of 27 May 2005 (Regulations relating to marine biotoxins)	Yes
R1145 of 8 October 2004 (Regulations governing tolerances for fungus-produced toxins in food stuffs (mycotoxins))	Yes
R911 of 28 September 2001 (Regulations governing certain solvents in foodstuffs (benzene and methanol))	Yes

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Additional Consumer Information Requirements

Food / Component		Yes/No
Beef (or bovine)		No
Chicken		No
Pork		No
Gelatine		No
Eggs		No
Fruit & vegetables		No
Milk & milk product		No
Antioxidants	Added BHA	No
	Added BHT	No
	Added TBHQ	No
	Other Antioxidants	No
Flavour enhancers		No
Alcohol (Residual)		No
Added Fats & Oil	Animal	No
	Vegetable	Yes
Allium Genus (Onion, garlic, spring onion, leek, chives, etc)		No
Sweeteners (intense, non-nutritive)		No
Preservatives		No
Seeds (sunflower, poppy, cottonseed, etc)		No
Yeast & Yeast Products (including yeast extracts)		No
Herbs		No
Spices		No
Hydrolysed Vegetable Proteins		No
Added Flavourants (if the product is a flavour, answer YES)		No
Added colourants (if the product is a colour, answer YES)		No
Added salt (if the product is salt, answer YES)		No
Added sugar (if the product is sugar, answer YES)		No
Honey & Honey products		No

Storage guidelines:

Macadamia oil is a perishable food product and should therefore be handled with the care expected for food products. Product is stored in sealed tamper proof drums flushed with Nitrogen gas. If stored/handled incorrectly, Macadamia oil could become rancid. The product should be stored in its original unopened packaging in a cool (Maximum 25°C), dry (±50% RH), well-ventilated area, away from direct sunlight to prevent oxidation.

The product should be regularly checked for any change in quality.

Mayo Macs SA (Pty) Ltd cannot guarantee the shelf life of any product which is re-packed/stored or handled outside of its direct control.