Macadamia kernel style

PLUS OIL (OPTIONAL)

Topping



Harissa Macadamia **Hummus Dip**



Concept Hummus Dip



Processing method Shear



Thermal treatment suitability

Yes



Nut raw/roasted

Raw in base Roasted in topping



Short, medium, long



Nut recommended usage rate (%)

Minimum 15% raw macadamia paste in base; 3-5% oil as optional Minimum 5% seasoned nut in topping



Hummus is a beloved Middle Eastern dip, celebrated for its creamy texture, savoury depth and plant-based nutrition. Traditionally made with chickpeas and tahini (sesame seed paste), its versatility as a dip, spread or accompaniment has made it a favourite worldwide.

Innovating on this classic, replacing tahini with macadamias delivers a rich, ultra-creamy texture and a buttery, slightly sweet flavour, elevating the hummus experience. Macadamias not only enhance mouthfeel but also provide beneficial unsaturated fats, making this a more indulgent yet nutritious option. Topping the dip with coated macadamia kernel adds extra crunch and nutty depth, creating a multilayered sensory experience that caters to premium and gourmet-seeking consumers.

The recommendations in this application guide apply to hummus type products where macadamias are milled to a paste or pre-processed paste is incorporated and subjected to thermal treatment.



Formulation

ADDITION RATE (%)

Ingredient	Description	Short shelf life	Medium shelf life	Long shelf life
Chickpea	Drained pre-processed cooked chickpeas or in-house cooked chickpeas	51.90	49.30	49.30
Macadamia	Kernel style 7 or 8 (raw) or paste	15.00	15.00	15.00
Macadamia oil	Macadamia oil	3.00	3.00	3.00
Lemon juice	Fresh or frozen lemon juice	5.00	10.00	10.00
Garlic	Minced garlic paste	1.00	1.00	1.00
Sugar	White sugar	1.50	1.50	1.50
Salt	Fine cooking salt	0.70	0.70	1.00
Yeast extract	Yeast extract powder	1.00	1.00	0.70
Cumin	Ground cumin	0.70	0.70	0.70
Citric acid	Citric acid granules	-	-	0.30
Potassium sorbate	Potassium sorbate granules	-	0.10	0.10
Xanthan gum	Xanthan gum 80 mesh	0.20	0.20	0.20
Water	Tap water	15.00	12.50	12.20
Roasted macadamia	Kernel style 7 (roasted)	4.50	4.50	4.50
Harissa seasoning	Harissa powder	0.50	0.50	0.50
Total		100.00	100.00	100.00

Processing flowchart

OPTION 1 OPTION 2 Mill the raw style 7/8 macadamia Use pre-processed kernel into a smooth paste raw nut paste Add macadamia paste, lemon juice and garlic paste to the kettle Mix with high shear to a uniform consistency Add the cooked chickpeas with high shear until smooth Set the heating temperature to 85°C Add the macadamia oil slowly into the mixture Pre-blend the dry ingredients and slowly incorporate them into the kettle Tumble the harissa seasonings and Continue mixing with high shear until the mixture reaches 85°C, then hold for 5 minutes pasteurised roasted style 7 macadamias for 5 minutes in a Turn off the heat tumbler1 Fill the hummus into tubs Deposit the seasoned kernel onto the hummus via a depositor Heat seal the tub with plastic film and apply the lid Store in the fridge (1-5°C) 1 Warming the nuts and applying a light oil spray before coating helps optimise coverage.

Shelf life

Short shelf life (up to 14 days, stored at 1-5°C)

- Product pasteurised at 85°C for 5 minutes
- Use pasteurised macadamias in the topping
- Product is not acidified

Medium shelf life (up to 2 months, stored at 1-5°C)

- pH < 4.6
- Product pasteurised at 85°C for 5 minutes
- Preservative added
- Product is acidified with lemon juice (or other appropriate acids)
- Use pasteurised macadamias in the topping

Long shelf life (up to 6 months, stored at 1-5°C)

- pH < 4.2
- Product pasteurised at 85°C for 5 minutes
- Preservative added
- Product is acidified with citric acid (or other appropriate acids)
- Use pasteurised macadamias as the topping

Shelf-stable

 Consider using Ultra Heat-Treatment (UHT) or retort processing to achieve a minimum 5-log pathogen reduction for a primary shelf life of 6 months at ambient temperature (20-25°C). However, this approach is more suitable for producing a smooth hummus-style dip without topping.

Note: All guidelines presented are for research purposes and provide indicative data on achievable product shelf life pertaining to the formulation, packaging and processes provided. Commercial manufacturers are responsible for validating the product shelf life and processing parameters using their specific equipment and operating conditions.

Recommended macadamia formats

- Raw style 7 or 8 kernel, or macadamia paste, for the hummus base
- Roasted style 7 kernel, for the topping
- Macadamia oil for the hummus base to replace the vegetable oil in the traditional hummus dip.
- Pasteurised macadamias are recommended for the topping to reduce the risk of contamination.

Recommended macadamia dosages

- Include a minimum of 15% raw macadamia kernel or paste in the hummus base to deliver a strong macadamia flavour profile.
- Replace traditional vegetable oil with 3-5% macadamia oil in the hummus base to enhance flavour and macadamia content.
- Use a minimum of 5% savoury seasoned macadamia topping to intensify the overall macadamia flavour.

Macadamia treatment and evaluations

- There is no notable difference in flavour and colour between raw and roasted kernel in the hummus base.
- This application lends itself to using smaller macadamia styles (7 or 8) or pre-processed paste.
- Adding a roasted macadamia kernel topping enhances flavour more effectively than increasing the macadamia content in the hummus base alone. Roasted macadamias impart a more pronounced flavour compared to raw kernel when used as a topping.
- The macadamia topping maintains comparable crunchiness whether applied to hot or cooled hummus bases.

Manufacturing considerations

- The product can be manufactured in a kettle with a high-shear blade.
- Thermal treatment is recommended to eliminate pathogen risks. However, if thermal processing is not feasible, the use of pasteurised macadamias is recommended, along with the strict implementation of Good Manufacturing Practices (GMP) throughout production.
- The product can be hot-filled above 70°C or cold-filled with suitable high-hygiene filling equipment.
- Savoury-coated macadamia toppings enhance the flavour of the finished product.
- The addition of macadamia oil increases the overall macadamia content and may enhance consumer appeal.

Alternative flavour suggestions

- Smokey paprika macadamia hummus dip
- Curry style macadamia hummus dip
- Kimchi macadamia hummus dip
- Basil and lemon macadamia hummus dip
- Sweet beetroot macadamia hummus dip
- Sumac macadamia hummus dip

Regulatory compliance check

All ingredients are permissible in Australia at the recommended levels. For specific international markets, please refer to the relevant regulatory standards in your country to ensure compliance and make any necessary adjustments to the additives used.





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