

PRINCES INTERNATIONAL FOODS TRADING GROUP

PRODUCT SPECIFICATION

CANNED TUNA PACKED IN OILS, BRINE & SPRINGWATER

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The conditions of this specification shall not be altered without prior written approval from Princes Food International Trading Group

1. GENERAL PRODUCT CONDITION

1.1 General Description

Princes brands (Princes and Cucumber) canned Tuna products shall be manufactured from cooked tuna fish which has been skinned, headed, eviscerated, trimmed of all blood muscle and scorched or oxidised surface tissue and packed with sunflower oil, olive oil, brine or springwater in hermetically sealed cans and sterilised by the application of heat. Skipjack {*Euthynnus (Katsuwonus) pelamis* {L.}} is the only species of Tuna permitted for the manufacture of these products. Mixed species shall not be filled in the same can.

The product shall comply with the requirements of the European Community Council Regulation EC No. 1536/92. The product shall accord with the requirements of the British DoH Guidelines for the Safe Production of Heat Preserved Foods of 1994 and EC Regulations 852/2004 on the hygiene of foodstuffs and 853/2004 on the hygiene of foodstuffs of animal origin and Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.

1.2 Name of the Food Product

The official name of the food to be declared on the product label is "Tuna (Chunk, Steak or Flake) in Brine, Tuna (Chunk, Steak or Flake) in Vegetable Oil or Tuna (Chunk, Flake or Steak) in Olive Oil" as appropriate

1.3 Allergen Notice

Where a recognised allergen is known to be present in the product this shall be declared within the ingredients listing. Recognised allergens involve pulses (peanuts), tree nuts, molluscs, crustacean, milk, eggs, sesame seeds, soy, fish, sulphites, monosodium glutamate, wheat, celery, mustard, lupines and certain antioxidants (BHA, BHT). These products contain fish (tuna) which is declared in the ingredients statement.

1.4 Shelf Life and Storage Conditions

The palletised products may be stacked four pallets high for standard product. The declared shelf life of the product, from the date of manufacture, shall not exceed 36 months (brine) and 60 months (oil) at ambient temperature and the product shall remain in a fit and merchantable condition for at least these periods. The product on delivery shall be less than 12 months old from canning.

1.5 Fish Content and Quantity Ingredient Declaration

For QUID the following drained weight value shall be printed on the label.

1.GENERAL PRODUCT CONDITION (Contd)

1.5 Net Weight and Drained Weight (in grams)

	80	150	160	170	185	200	400	800	820	1715	1880
Minimum average net weight ie nominal weight	80	150	160	170	185	200	400	800	820	1715	1880
Minimum net weight of any single can ie TNE 1	75	143	153	162	177	191	388	785	805	1690	1852
Minimum drained weight of any single can	56	105	112	120	130	150	280	560	574	1260	1320

1.6 Out-turn

Tuna shall constitute the majority of the product. The condition of the products shall be typical of freshly cooked tuna light meat. The fish shall appear clean and bright, the flesh being typically pale yellow to flesh pink. The texture of the fish shall be tender but firm and the mouth-feel may be slightly dry. Evidence of pre-process deterioration such as dehydration, discoloration, softening etc., and evidence of excessive heat-damage such as scorched colours, shall be absent.

Tuna Steak shall consist of 2-5 transversely cut loins of tuna packed tightly in the can to appear as a solid steak. The steak shall be for the most part intact and whole, no added loose flake is permitted and only limited shredding or fragmentation to a 5% maximum will be tolerated. Cross-cut steaks shall be absent.

Tuna Chunks shall consist of transversely cut loins of fish to appear as whole chunks of tuna which shall not exhibit the obvious addition of flake or shredded tuna. The addition of cleaned flake or shred will be tolerated to a limited degree provided it is randomly distributed throughout the pack and does not appear as a single pressed block. The out-turn tolerance for material that will pass through a 1/2 inch mesh shall not exceed 30 percent of the drained weight in any single can.

Tuna Flakes shall consist of whole flakes of tuna fillet of target dimensions 25 x 15 mm tapering to 2.5 mm, up to 50 x 20 x 3 mm, but not less than 15 x 5 x 2 mm. Not more than ten percent of flakes shall weigh in excess of 5g. The flakes shall be for the most part wholly intact and easily separated, and only limited shredding or fragmentation will be tolerated as specified below.

1.GENERAL PRODUCT CONDITION (Contd)

The vegetable oil shall be clear, attractive, bland in flavour, with no rancid odour and a maximum of 30% free water. The presence of small fish fibres suspended within the oil is acceptable to a slight degree. The olive oil shall be clear, bright and slightly fruity in flavour with no evidence of rancidity and a maximum of 15 % free water present. The colour shall be very pale yellow/green - deep and dark colours shall be avoided. The brine shall be reasonably clear and "sweet". The presence of small fish fibres suspended within the brine is acceptable to a limited degree. The salt concentration of the brine shall be sufficient to effect a finished product salt content of 0.8 - 1.3%. For springwater samples the final salt content shall be no more than 0.8%

1.9 Defect Tolerances

Based on the retail size can, in any sample of 13 packs tolerable defects will be as follows:

- no foreign matter e.g. wood, glass, stone, metal etc.
- no hard bone, no spinal bone or large ventral or dorsal bone.
- no crystals of struvite
- essentially free from small pieces of bone, scales, skin and dark meat

Definitions :-

Foreign matter includes any material not derived from the original raw material, such as wood, glass, stone, metal etc.

Extraneous fish matter concerns individual pieces of dark meat, fish bone, greater than 6mm square, and skin and fish scales greater than 4mm square, or similar noticeable defects of lesser dimensions, where three are counted as one single defect.

Proportionate tolerances are allowed for other can sizes.

1.10 Histamine

The histamine content of all packs supplied to Princes shall be consistently below 50 ppm and Princes Limited shall be provided with formal certificates advising of histamine levels respective to each production batch shipped.

1.11 Packaging

Utilising a sealing compound lining the curl of the can end to form a gasket within the double seam closure, the product shall be packed in hermetically sealed cans which contain a positive vacuum. The standard of seal closure shall comply with the standard stipulated in section 3 of this specification relating to Manufacturing Aspects. The cans shall be substantially free from corrosion and shall accord with the following specification:-

1.GENERAL PRODUCT CONDITION (Contd)

Can type- 2 piece drawn can (150g, 160g, 185g & 200g)
2 piece can (400g)
3 piece with welded side seam (80g,1880g,1715g & 800g). 150g&160g
Cucumber ring pull end for singles and plain end for multipacks.

Internal finish - tin plated with sulphur resistant lacquer.

Epoxy phenolic lacquered on tinfree steel to FDA and EU regulations.

External finish - 5.6g tin per sq metre, ends may be plain, lacquered, or TFS

Dimensions - 83 x 38mm (150g&160g); 83 x 42mm (170g) - 83 x 44mm (185g & 200g),
99mm x 64mm (400g), 153 x 114mm (1.715kg),

Can lacquering systems shall ensure all the requirements of EC Directive 90/128, as amended, and EU 1895/2005 as amended, are satisfied particularly with regard to migration of BADGE or BFDGE which shall not be detectable in the finished product.

1.12 Can Coding Format

All packs shall be legibly batch coded to and outer cases shall be marked.

All packs shall be legibly batch-coded to enable the producing factory, product and date of manufacture to be readily identified. The batch code shall also be marked on outer cases or be visible through shrink wrapping. All pack labels and outer cases shall clearly indicate the shelf life expiry date in the form of "best before end" followed immediately by the appropriate declaration in the form of either month and year, or year ending. Each can and case must bear the official EU approval code and the country of origin. Coding shall not fracture can surface lacquer or perforate the plate metal of the can. All coding shall be clearly legible and shall be easily recognisable as the batch and day codes.

1.13 Labelling

The supervision of labelling is of equal importance to that required at all stages of product manufacture, and must ensure that:

- a) labels adhere correctly to the can with no loose edges.
- b) labels are close fitting to the can and are correctly aligned.
- c) labels are whole, not torn or holed.
- d) labels do not show adhesive on the outer printed surface and rust or dirt marks are absent.

2. FORMULATORY ASPECTS

2.1 Ingredient Description

Vegetable oil variety

Pre-cooked light meat tuna Tuna **(fish)**, Sunflower oil, Salt
Sunflower oil.

Olive oil variety

Pre-cooked light meat tuna Tuna **(fish)**, olive oil, Salt
Olive oil (29%),

Brine variety

Pre-cooked light meat tuna Tuna, **(fish)**, water, Salt
Water.

Springwater variety

Pre-cooked light meat tuna Tuna, **(fish)**, Water, Salt
Tesalia Spring Water

The figures above are 'typical' only. All fish fill weights shall ensure the required minimum drained weight and maximum flake content values are satisfied. Salt addition shall be controlled to satisfy the required level in the finished product.

2. FORMULATORY ASPECTS (Contd)

2.2 Commodity Description

Tuna

All fish used in the manufacture of Princes Tuna shall be derived from suitable raw material handled in a manner as approved by the Instituto Nacional de la Pesca of Ecuador, in accordance with EU Decision 94/200 and the requirements of European Community Regulation 853/2004.

The permitted species for the manufacture of "Princes" and "Cucumber" brand canned tuna fish is 'Skipjack' (*Euthynnus (Katsuwonus) pelamis* (L.)) The delivered fish shall be whole, raw and deep frozen less than -18 Celsius. The fish used for the manufacture of this product shall be wholesome and free from deterioration, spoilage, and off-odours.

Princes Foods require all tuna raw material sourced or purchased by any party packing canned tuna for Princes shall be caught only by pole and line or purse seine methods and in employing these methods particular care shall be taken to avoid any situation which may be likely to endanger Dolphins, Porpoises or Whales. The use of high-seas drift netting and "setting-on" catching methods are specifically prohibited.

This requirement shall apply to all tuna fish raw material sourced or purchased by the packer irrespective of the particular customer or whether destined for human or pet food use. All packers shall be required to maintain comprehensive documented records attesting as to the origin of tuna raw material. This documentation shall detail the fishing vessel concerned, the date of catching, the geographic area of the catch and the method employed in the capture.

Satisfactory compliance with these requirements is prerequisite for endorsement for approval for the supply of product to Princes Foods.

Vegetable Oil

The standard vegetable oil shall be clear, attractive and bland in flavour, with no rancid odour. The only permitted oil variety is sunflower seed oil, which shall be derived from the seeds of the Sunflower (*Helianthus annuus*), which shall be clear with a light/pale yellow colour, bland in flavour, with no rancid odour. The oil shall be refined and deodorised prior to use, with a maximum free fatty acid content of 0.2% (OLEIC) and a maximum peroxide value on intake of 2.0 Meq/Kg.

Oil derived from peanut (*Arachis hypogaea*.) shall specifically not be used in the manufacture of this product.

2. FORMULATORY ASPECTS (Contd)

Olive Oil

The olive oil shall be clear, attractive and bland in flavour, with no rancid odour. The only permitted oil variety is of the *Olea europaea* fruit as defined in 'The Olive Oil (Marketing Standards) Regulations 1987' (as amended) which shall be Virgin oil or produced from secondary press extraction only i.e. solvent extracted oil is not to be used. The colour shall be very pale yellow-green with dark or intense colours being avoided and the maximum free fatty acid content of the oil at the time of packing shall not exceed 0.5%.

Water

Ingredient water, including Springwater from Tesalia Spring Company, shall be potable and shall conform with EEC Directive 98/83 "on the quality of water intended for human consumption". The springwater shall comply with the relevant sections of "The natural Mineral Water, Springwater and Bottled Water Regulations 1999"

No added salt is permitted at the preparation or filling stages of springwater variant production.

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3. ANALYTICAL ASPECTS

3.1 Chemical Composition (typical per 100g of drained product)

	Oil Varieties			Brine/SW Varieties		
	Steak	Chunk	Flake	Steak	Chunk	Flake
Moisture	66.37	62.97	61.97	73.27	73.27	76.17
Protein	24.0	23.5	22.5	23.5	23.5	18
Fat	8.0	9.5	14.3	0.5	0.5	1.2
Saturated Fat	1.2	1.6	2.4	0.1	0.1	0.2
Sodium	420mg (SW 320mg)					
Salt	1.05g (SW 0.80g)					
Carbohydrate	<0.1					
Sugars	0.0					
Fibre	<0.1					
Ash	1.23					
Energy (Kcals)	168	180	219	99	99	83
Energy (KJ)	704	751	912	418	418	350

3.2 Inorganic Constituents (mg per 100g)

Potassium	280
Calcium	7
Iron	1.1

3.3 Maximum Contaminant Limits (of drained product)

PARAMETER	MAXIMUM PERMITTED LEVEL	UNITS
Histamine	50	ppm
Lead	1	ppm
BADGE	<1.0 (at shelf life end)	ppm
Cadmium	0.05	ppm
Tin	150 (at shelf life end)	ppm
Mercury	0.5	ppm

3.4 Additional Data

Free fatty acids - 0.2 MAXIMUM
SFA/PUFA - 12/60 (sunflower) 15/15 (olive)
pH - 5.8 - 6.2 (typically)

3.5 Microbiological Tolerances

Commercially sterile

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