



DRIED SEA KELP (LAMINARIA)

Dried sea kelp is the washed and dried thallus of brown algae of the genera Laminaria and Saccharina, harvested from cold marine waters and supplied as whole thalli, cut strips, flakes or powder. The material is a natural source of iodine, minerals and alginates, which give it water-binding, thickening and stabilising properties, and carries a mild savoury marine flavour. It is supplied as a food raw material and requires iodine-related labelling.

APPLICATIONS

Functional foods, seasonings, savoury snacks and soups, where kelp contributes a savoury marine note, natural minerals and a reduction of the added sodium chloride level.	Health supplements and culinary preparations, where the natural alginate content provides water binding, thickening and structure, and the thallus serves as an iodine source.
--	--

DRIED SEA KELP · LAMINARIA / SACCHARINA SPP. · THALLI, CUT OR POWDER

Specification:

IDENTITY, PHYSICAL AND CHEMICAL CHARACTERISTICS

ITEM OF TEST	TEST RESULTS	METHOD / REFERENCE
APPEARANCE	Dried thalli, cut strips, flakes or powder; free from shells, grass and other foreign matter	Visual; dried sea kelp specification
COLOUR	Dark olive-green to dark brown	Visual; supplier specification
ODOUR, TASTE	Characteristic marine odour, mildly savoury and salty taste; free from foreign and musty odours	Organoleptic; dried sea kelp specification
BOTANICAL IDENTITY	Thallus of brown algae of the genera Laminaria and Saccharina	Botanical identification; CEVA / ANSES seaweed species list
MOISTURE, max.	20.0 %	Dried sea kelp specification
IODINE, dry basis, min.	0.1 % (1,000 mg/kg)	Dried sea kelp specification
IODINE, dry basis, working range	1,000 – 2,000 mg/kg; French regulatory ceiling for Laminaria 6,000 mg/kg dry weight	AFSSA Opinion 2009 (2,000 mg/kg recommendation) and CSHP limit, cited in ANSES Opinion 2018-SA-0086
SAND (insoluble mineral matter), dry basis, max.	0.2 %	Dried sea kelp specification
FOREIGN MATTER (shells, grass and others)	Not permitted	Visual; dried sea kelp specification
PARTICLE SIZE, cut (shredded) kelp	Strip width max. 5 mm	Sieve / calliper measurement; dried sea kelp specification
THALLUS LENGTH, whole dried thalli, min.	15 cm	Measurement; dried sea kelp specification, first and second grade
FLAKES AND POWDER PARTICLE SIZE	As agreed per order	Sieve analysis; agreed per order
ALGINIC ACID AND ALGINATES, TOTAL DIETARY FIBRE	On request	AOAC 991.43 (dietary fibre); titrimetric determination of alginates
SODIUM CHLORIDE	As agreed per order	Argentometric titration; agreed per order
ASH	On request	Incineration at 550 °C

Moisture, iodine, sand and foreign matter follow the published requirements for dried sea kelp; the iodine working range and the French ceilings are taken from the ANSES Opinion on the risk of excess iodine intake from seaweed. Iodine is determined on customer request and reported per consignment.

RESIDUE LIMITS

ITEM OF TEST	TEST RESULTS	METHOD / REFERENCE
LEAD (Pb), max.	0.5 mg/kg	BB Chemicals specification; AAS / ICP-MS
ARSENIC (As, total), max.	5.0 mg/kg	BB Chemicals specification; ICP-MS
INORGANIC ARSENIC, max.	3.0 mg/kg (dried product)	French limit for edible seaweed, cited in ANSES Opinion 2018-SA-0086; HPLC-ICP-MS
CADMIUM (Cd), max.	1.0 mg/kg	BB Chemicals specification; ICP-MS
MERCURY (Hg), max.	0.1 mg/kg	BB Chemicals specification; cold vapour AAS
CADMIUM, supplements with min. 80 % dried seaweed, max.	3.0 mg/kg	Reg. (EU) 2023/915, Annex I, 3.2.21.2; ICP-MS
PESTICIDE RESIDUES	Comply with the maximum residue levels of Reg. (EC) No 396/2005	Reg. (EC) No 396/2005; GC-MS / LC-MS/MS
RADIONUCLIDES (¹³⁷ Cs, ⁹⁰ Sr)	On request; determined per batch on customer agreement	Gamma and beta spectrometry

The cadmium level for supplements containing at least 80 % dried seaweed is entry 3.2.21.2 of Regulation (EU) 2023/915 and the inorganic arsenic value is the French limit for edible seaweed reported in the ANSES Opinion; lead, total arsenic, cadmium and mercury for the dried product are BB Chemicals specification values. Batch results are reported in the certificate of analysis.

MICROBIOLOGICAL CHARACTERISTICS

ITEM OF TEST	TEST RESULTS	METHOD / REFERENCE
TOTAL PLATE COUNT (TPC), max.	5 × 10 ⁴ CFU/g	BB Chemicals specification; ISO 4833-1
MOULDS, max.	100 CFU/g	BB Chemicals specification; ISO 21527-2
COLIFORM BACTERIA (Enterobacteriaceae)	Not permitted in 1.0 g	BB Chemicals specification; ISO 21528-2
FAECAL COLIFORMS / Escherichia coli, max.	10 CFU/g	CEVA criteria for dried seaweed, cited in ANSES Opinion 2018-SA-0086; ISO 16649-2
SULPHITE-REDUCING ANAEROBES, INCL. Clostridium perfringens, max.	100 CFU/g	CEVA criteria for dried seaweed, cited in ANSES Opinion 2018-SA-0086; ISO 15213
Salmonella spp.	Absent in 25 g	ISO 6579-1

Total plate count, mould and coliform limits are BB Chemicals specification values; the faecal coliform and sulphite-reducing anaerobe criteria are the CEVA criteria for dried seaweed reported in the ANSES Opinion. Sample preparation of the initial test solution according to ISO 6887-4.

Botanical name: Laminaria spp. and Saccharina spp., dried thallus
CN / HS code: 1212 21 (seaweeds and other algae, fit for human consumption)
Regulatory status: food raw material; iodine content requires declaration and consumption guidance, no food additive authorisation under Reg. (EC) No 1333/2008
Appearance: dark olive-green to dark brown dried thalli, cut strips, flakes or powder
Processing: washing in sea water, drying and cutting or milling; not irradiated, no additives

Applications: functional foods, seasonings and savoury snacks, soups and culinary preparations, health supplements, cosmetic and personal care formulations
Packaging: multi-ply paper or polypropylene bags, 20 – 25 kg net; corrugated cartons 10 kg net with 0.5 kg polyethylene inner bags
Storage & transport: closed packaging in dry, clean, well-ventilated premises free from pests, protected from sunlight, moisture and foreign odours
Shelf life: as agreed per order and declared on the label, in unopened original packaging under dry storage

COMPLIANCE & DOCUMENTATION

- The product complies with Regulation (EU) 2023/915 on maximum levels for certain contaminants in food and with the hygiene requirements of Regulation (EC) No 853/2004 on the hygiene of foodstuffs.
- Iodine intake caution: the iodine content of dried Laminaria is high and variable, and the EFSA tolerable upper intake level for adults is 600 µg iodine per day; French guidance recommends a maximum of 2,000 mg iodine per kg dry weight for edible seaweed, with a ceiling of 6,000 mg/kg for Laminaria (ANSES Opinion 2018-SA-0086).
- Users should define serving sizes and labelling so that the daily iodine intake from the finished food remains within the applicable national and EFSA guidance values; batch iodine results are provided on request.
- Inorganic arsenic is controlled against the French limit of 3 mg/kg for dried edible seaweed; total arsenic, lead, cadmium and mercury are controlled against the BB Chemicals specification limits stated above.
- Non-GMO within the meaning of Regulations (EC) No 1829/2003 and (EC) No 1830/2003; not irradiated and free from added preservatives or colours.
- Organic certification under Regulation (EU) 2018/848, harvest area and traceability documentation, kosher and halal statements and third-party audit certificates are available on request.
- Each consignment is accompanied by a certificate of analysis with batch-specific results.

References: ANSES Opinion on the risk of excess iodine intake from seaweed (iodine, trace metal and microbiological criteria for dried seaweed), anses.fr; Commission Regulation (EU) 2023/915 on maximum levels for certain contaminants in food, eur-lex.europa.eu; HS heading 1212 21 seaweeds and other algae fit for human consumption, hscodedb.com.

This specification is issued for information purposes and does not constitute a warranty. Batch-specific values are confirmed in the certificate of analysis accompanying each consignment.