

Botanical name: *Laminaria digitata*
Common name: Kelp, Oarweed
Part used: Whole kelp, stipe and frond
Lot numbers depend on: Date of inhouse drying process

Tracked as date and harvesting location: In Breiðafjörður W-Iceland, GPS tracked
Crop is wild harvest, subject to official state monitoring by Fiskistofa.is
Expiry date, sell by date or retest in 2 years

	Necessary requirements in accordance with regulations	Control measures	Monitoring and/or control plan
PHYSICO-CHEMICAL PROPERTIES			
Botanical identification	Botanical identification (TLC) No falsification	<i>Laminaria digitata</i>	Visual inspection
Particle size distribution	According to the references: refer to the call for tender	Sieved and separated	Visual inspection
Density	Specification per plant	Unknown	
Residual moisture	≤ 11 %	<9%	Lots are measured in house
Total ashes	≤ 15% Unless otherwise specified	< 15%	
Foreign elements	No hard/sharp/cutting/foreign bodies No Insects or parasites	sieved meal	Mesh sizes indicated
CONTAMINANTS (Left column shows limits according to EC food supplements' standard regulations)			
Heavy metals	In compliance with EC/915/2023 Lead ≤ 3.0 ppm Cadmium ≤ 1.0 ppm Mercury ≤ 0.10 ppm Arsenic: Risk handling policy	Cadmium and Arsen can be >3,0ppm. Laminaria is not for feed nor food. Others below limits or <1ppm or <0,1 Additional measurements to be paid by purchaser	Measurements by certified European agencies. NB As can vary because all Icelandic bedrock is volcanic. Iodine is 0,5%
Pesticide residues	In compliance with EC/396/2005 ORGANIC audits: Non used, no residues	No traces found in measurements	MATIS measurements or by certified European agencies
Aflatoxins	In compliance with EC/915/2023 Aflatoxin B1 ≤ 2.0 µg/kg B1, B2, G1 et G2 ≤ 4.0 µg/kg	This is harvest from the sea, no residues in industry	MATIS measurements or by certified European agencies
Ochratoxins A	In compliance with regulation EC/915/2023 ≤ 10.0 µg/kg	This is harvest from the sea, no residues in industry	MATIS measurements
GMO	In compliance with reg. EC/1829/2003 and EC/1830/2003	No seeds used only natural seaweed harvest	
Allergens (*)	No cross contamination with major allergens. In compliance with regulation EC/1169/2011	There may be traces of crustaceans/molluscs in the meal. They are natural epiphytes	According to in house measures <0.15%
Ionizing and irradiating treatments	None used. In compliance with EC/1999/2 and EC/1999/3	None used	
Polycyclic aromatic hydrocarbon (PAH)	In compliance with EC/915/2023 , Benzo(A)Pyrene BaP ≤ 10 ppb Benzo(A)Pyrene + Benzo(A)Anthracene + Chrysene + Benzo(B) Fluoranthene ≤50 ppb	Not used. Not found	
Pyrrolizidine alkaloids	Risk handling policy In compliance with regulation EC/915/2003 ≤ 400 µg/kg	Non traceable	
Radioactivity	In compliance with EC 733/2008 Content Cs ¹³⁴ + Cs ¹³⁷ ≤ 600 Bq/Kg	< 0,16 Bq/kg (2024)	Geislavarnir rikisins, 2023
Other treatments	Type of drying, cleaning, cold sterilisation, blanching, etc. which could have an impact on the HACCP	Geothermal drying >80 °C for 3 h	Constant monitoring of geothermal temperature

Big bags and paper bags are marked with audited certifications and a batch number. Batch definition example: year 23, day of that year 356, 1 means first shift of the day 233561. Or night shift on Dec 22, 2023. Sometimes the milled meal has been mixed and is kept in a silo for bulk transport.

For general reference about the sea around Iceland, please look up this [REPORT](#)

Place: 380 Reykhólar, Iceland. Date: August 7 2024, By Finnur Árnason, General manager, Thorverk Ltd. Supplier: Own local harvest, see www.thorverk.is