

PRODUCT INFORMATION SHEET

**Coconut, Egg, Fish and Sesame
in Instant Soup Powder (positive)**

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	DLA ptAL01 (2025) – Allergens I: Coconut, Egg, Fish and Sesame in Instant Soup Powder with "Spiking Level Sample" (3 different Samples) – Sample A (positive sample)
Identifier / LOT	RM 2025-AL01 A
Expiry date	May 2029
Matrix	Broccoli Cream Soup Powder
Physical description	Powder
Packaging / weight	Sealed foil poche / 25 g
Storage conditions	2 - 10°C (dry and dark)
Name and address manufacturer	DLA - Proficiency Tests GmbH Hauptstr. 80, 23845 Oering, Germany Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976 eMail. pt@dla-lvu.de, website. www.dla-lvu.de

Composition of Material

Ingredients	Sample A present sample	Sample B	Sample SP
Broccoli Cream Soup Powder Ingredients: Maltodextrin, palm fat, modified starch, glucose syrup, salt, rice flour, yeast extract, broccoli (2.3%), leeks, onions, stabilizer: diphosphates, spinach, thickener: xanthan gum, garlic, spices, vegetable concentrates (carrot, onion), natural aroma, tomato extract, sunflower oil, lovage and positive sample: allergenic ingredients as below Nutrients per 100 g: Fat 19 g, Carbohydrates 59 g, Protein 4,9 g, Salt 9,5 g	99,9 g/100 g	100 g/100 g	-
Potato Powder Ingredients: Potatoes, E471, E304, E223, E100	-	-	99,9 g/100 g
Coconut, flours mixture (6 products from Asia and unknown origin) – as coconut* – thereof 18,8% total protein**	37,3 mg/kg 5,93 mg/kg	-	38,7 mg/kg 6,15 mg/kg
Whole egg powder, pasteurized, spray dried , mixture (6 products from 2 countries, Europe) – as whole egg powder* – thereof 46,9% total protein** – thereof 26,0% egg white protein***	22,9 mg/kg 10,7 mg/kg 5,95 mg/kg	-	23,5 mg/kg 11,0 mg/kg 6,10 mg/kg
Fish: Codfish (<i>Gadus morhua</i>) , frozen, freeze-dried, milled, mixture (2 products, Northeast Atlantic) – as fish, dried* – thereof 78,4% total protein** – calculated as fresh fish***	53,0 mg/kg 41,5 mg/kg 265 mg/kg	-	56,0 mg/kg 43,9 mg/kg 280 mg/kg
Sesame, white (<i>Sesamum indicum</i>) : Seeds, ground, mixture of 10 products (Africa, Asia, South America) – as sesame* – thereof 24,5% total protein**	17,9 mg/kg 4,39 mg/kg	-	17,9 mg/kg 4,39 mg/kg
further Ingredients: Maltodextrin, sodium sulfate and silicon dioxide	<0,1 g/100 g	-	<0,1 g/100 g

* Allergen contents as "total food" as described in the column ingredients according to the gravimetric mixture

** Protein contents according to laboratory analysis of the raw material (total nitrogen according to Kjeldahl with F=6,25 for coconut protein, whole egg protein and sesame protein, and F=5,60 for fish protein)

*** Contents according to literature values: 26,0% egg white protein and fresh codfish with a water content of 80% (Nutrient tables, Souci/Fachmann/Kraut)

Note: The metrological traceability of temperature, mass and volume during production of the PT samples is ensured by DAkkS-compliant calibrated reference materials.

Minimum Sample Size / Homogeneity

A minimum sample size of 5 g is recommended for sample preparation.

The homogeneity tests were performed with sample sizes of 5 g (Microtracer analysis) and 1 - 5 g (ELISA methods), respectively.

The mixture homogeneity was examined 10-fold by microtracer analysis. Homogeneity was sufficient with a probability of $\geq 25\%$ (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3). The homogeneity tests of the parameters were carried out by ELISA analyzing two subsets from 10 test items (according to ISO 13528:2015 Annex B). Homogeneity was sufficient with a standard deviation between the samples S_s of $\leq 15\%$ („heterogeneity standard deviation“) using ELISA test kits from different manufacturers, e.g. AgraQuant Allergen ELISA Romer Labs, GSD Allergen ELISA Gold Standard Diagnostics Kassel, Morinaga Food Allergen ELISA Kits MloBS, Veratox ELISA for Food Allergens Neogen (for more details see final report of PT).

Reference Values

All reference values were derived from the related PT round (for more details see final report).

Reference Values quantitative in mg/kg ELISA

Parameter	Coconut	Whole egg powder	Fresh Fish
	All Results (Info)*	All Results*	All Results*
Number of results	6°	18°	5°
Number of outliers	2	1	2
Assigned Value (X_{pt})	67,3	20,9	143
Robust standard deviation	33,7	5,68	39,7
Standard uncertainty	17,18	1,67	22,2
Target standard deviation σ_{pt}	16,8	5,21	35,7
Target range	33,6 - 101	10,4 - 31,3	71,3 - 214

* ELISA Method: divers Methods

° without outlier / (Info): for information only

Parameter	Sesame		
	Methods "Peak 12"*	Methods "Peak 38"***	Method RS-F***
Number of results	6	7°	5
Number of outliers	-	1	-
Assigned Value (X_{pt})	11,7	38,2	38,2
Robust standard deviation	5,23	5,54	2,10
Standard uncertainty	2,67	2,62	1,17
Target standard deviation σ_{pt}	2,92	9,55	9,54
Target range	5,84 - 17,5	19,1 - 57,3	19,1 - 57,2

* ELISA Methods "Peak 12": AQ = AgraQuant, RomerLabs, BC = BioCheck ELISA and SP = SensiSpec ELISA Kit, Gold Standard Diagnostics

** ELISA Methods "Peak 38": 3M = 3M Protein ELISA Kit, BF = MonoTrace ELISA, BioFront Technologies and RS-F= Ridascreen® Fast, R-Biopharm

*** ELISA Method RS-F= Ridascreen® Fast, R-Biopharm

° without outlier

Reference Values qualitative ELISA

Parameter	Coconut*	Whole egg powder*	Fresh Fish*	Sesame*
Number positive	10	20	7	15
Number negative	0	0	0	0
Percent positive	100	100	100	100
Percent negative	0	0		0
Consensus value	positive	positive	positive	positive

* Results of diverse ELISA Methods (LODs positive results Coconut 0,13-2,0 mg/kg, Whole egg powder 0,08-0,5 mg/kg, Fish 0,5-5,0 mg/kg, Sesame 0,2-2,0 mg/kg)

Reference Values qualitative PCR

Parameter	Coconut*	Egg*	Fish, fresh*	Sesame*
Number positive	4	1	6	9
Number negative	1	0	1	0
Percent positive	80	100	86	100
Percent negative	20	0	14	0
Consensus value	positive	none**	positive	positive

* Results of diverse PCR Methods (LODs positive results Coconut 200-1000 mg/kg, Egg 2 mg/kg, Fish 1,0-1000 mg/kg, Sesame 0,4-1000 mg/kg)

** The result is in qualitative agreement with the spiking of sample A as well as with the ELISA results.

Intended Use

- for laboratory use only, no food!
- validation of analytical methods
- control sample for quality control charts
- test material for inter-laboratory comparisons
- no medical use

Storage Instructions and Handling Information

The material should be stored as stated on page 1. Before use of the material should be warmed up to room temperature. The content should be mixed thoroughly prior to subsampling (see minimum sample size above). The material should be weighed immediately after opening of the foil pouche/bottle and closed again afterwards in order to avoid uptake of moisture. Frequent freezing and thawing should be avoided as this can lead to changes in the properties of the material. The expiry date of this RM is based on the current knowledge and applies only for proper storage conditions in the originally closed foil pouche/bottle.

Safety Precautions

The usual laboratory safety precautions should be applied when working with the RM considering the type of ingredients, parameters and its concentration.

Data Source

The material was analyzed by 21 laboratories within the related proficiency test (PT). Different analytical methods have been used.

Various

The user must determine the suitability of this RM for its particular purpose. DLA makes no warranty of any kind, expressed or implied, other than its products meet all quality control standards set by DLA. We do not guarantee this product can be used for a special application.



approved (PT-Coordinator)	updated
Matthias Besler-Scharf, PhD	Ulrike Vorreiter
<i>signed M. Besler-Scharf</i>	<i>signed U. Vorreiter</i>
12 June 2025	28 May 2026