

PRODUCT INFORMATION SHEET

Allergens Crustaceae, Milk (Casein) and Soya in Instant Soup Powder

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	<i>DLA ptAL01 (2023) Allergens I: Crustaceae, Milk (Casein) and Soya in Instant Soup Powder - Sample B</i>
Identifier / LOT	<i>RM 2023-AL01 B</i>
Expiry date	<i>April 2027</i>
Matrix	<i>Instant Soup Powder</i>
Physical description	<i>Powder</i>
Packaging / weight	<i>Sealed foil pouche / 25 g</i>
Storage conditions	<i>cooled 2 - 10°C, long term frozen < -18°C (dry and dark)</i>
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	Amounts
Instant Spice Soup Powder Ingredients: Wheat flour, palm oil, potato starch, rice flour, maltodextrin, salt, sugar, garlic, black pepper, rosemary, onions, and allergenic ingredients as below	99,9 g/100 g (#)
Crustaceae King prawns, freeze-dried, milled – as crustaceae, dried* – <i>thereof 87,0% total protein**</i> – <i>calculated as tropomyosin***</i>	30,2 mg/kg 26,2 mg/kg 5,24 mg/kg
Milk skimmed milk powder mixture (9 products from Europe, USA) – as skimmed milk powder* – <i>thereof 33,0% total protein**</i> – <i>thereof casein***</i>	20,8 mg/kg 6,87 mg/kg 5,50 mg/kg
Soya Soyflour, 1 organic product – as soyflour* – <i>thereof 33,8% total protein**</i> – <i>calculated as soy trypsin inhibitor ***</i>	11,9 mg/kg 4,04 mg/kg 0,606 mg/kg
further Ingredients: <i>Maltodextrin, sodium sulfate and silicon dioxide</i>	<0,3 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 crustaceae protein, with F=6,38 for milk protein and F=5,71 for soya protein)

*** Protein contents according to literature values (approx. 20% tropomyosin in crustaceae protein; approx. 80% casein and 10% β -lactoglobulin in total milk protein; approx. 15% soybean trypsin inhibitor in soy protein)

(#) Note: The basic food matrix contains unintended additional traces of the allergens milk and soya (see report result section)

Minimum Sample Size

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

The homogeneity tests were performed with sample sizes of 1 - 5 g (ELISA methods), respectively. 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“) (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	Crustaceae (as Crustaceae Protein)
	All methods*
Number of results	5°
Number of outliers	2
Assigned Value (Xpt)	4,47
Robust standard deviation	1,44
Standard uncertainty	0,804
Target standard deviation σ_{pt}	1,12
Target range	2,24 – 6,71

* Results of diverse ELISA Methods (without method RS-F = Ridascreen® Fast, R-Biopharm)

° without outliers

Parameter	Milk (as Milk Protein)
	All methods*
Number of results	10°
Number of outliers	1
Assigned Value (Xpt)	6,14
Robust standard deviation	2,83
Standard uncertainty	1,12
Target standard deviation σ_{pt}	1,53
Target range	3,07– 9,21

* Results of diverse ELISA Methods

° without outliers

Parameter	Soya (as Soya Protein)	
	All methods*	Method RS-F**
Number of results	8	6
Number of outliers	0	0
Assigned Value (Xpt)	4,98	5,70
Robust standard deviation	2,01	1,60
Standard uncertainty	0,887	0,816
Target standard deviation σ_{pt}	1,25	1,42
Target range	2,49 – 7,48	2,85 – 8,54

* Results of diverse ELISA Methods (without method AQ = AgraQuant, Romer Labs)

** ELISA Method: Ridascreen® Fast, R-Biopharm

Reference Values qualitative ELISA + LFD

Parameter	Crustaceae (as total Protein) *	Milk (as total milk protein) *	Soya (as total soya protein)
Number positive	7	11	10
Number negative	0	0	2
Percent positive	100	100	83
Percent negative	0	0	17
Consensus value	positive	positive	positive

* Results of diverse ELISA Methods (LODs 0,005-20 mg/kg crustaceae protein, 0,05-3 mg/kg milk protein and 0,25-2,5 mg/kg soya protein)

Reference Values qualitative PCR

Parameter	Crustaceae*	Soya *
Number positive	1	2
Number negative	0	0
Percent positive	100	100
Percent negative	0	0
Consensus value	-	positive

* Results of diverse PCR Methods (LODs positive results 2,5 mg/kg crustaceae fresh and 1-10 mg/kg soya)

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 poche/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 poche/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 12 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.

Datum / Date: 28 March 2024

Dr. Matthias Besler-Scharf (EP-Koordinator / PT-Coordinator)
- gezeichnet / signed M. Besler-Scharf

