# PRODUCT INFORMATION SHEET

# *Peanut, Almond and Milk in Spiking Level Sample*

*PT originated REFERENCE MATERIAL (RM)*

**Description of the RM**

| | |
|---|---|
| Name / Material of related PT | *DLA ptAL05 (2022) Allergens V: Peanut, Almond and Milk in Pastry with "Spiking Level Sample“ - Spiking Level Sample* |
| Identifier / LOT | *RM 2022-AL05 SP* |
| Expiry date | *November 2026* |
| Matrix | *Potato Powder* |
| Physical description | *Powder* |
| Packaging / weight | *Sealed foil pouche / 15 g* |
| Storage conditions | *cooled 2 - 10°C, long term frozen < -18°C (dry and dark)* |
| Name and address manufacturer | ***DLA - Proficiency Tests GmbH***<br>*Hauptstr. 80, 23845 Oering, Germany*<br>*Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976*<br>*eMail. pt@dla-lvu.de, website. www.dla-lvu.de* |

**Composition of Material**

| **Ingredients** | **Amounts** |
|---|---|
| Potato Powder<br>Ingredients: Potatoes, E471, E304, E223, E100 | 99,95 g/100 g |
| *Peanut, roasted*<br>milled, mixture (18 products from USA, Asia, Africa, South America)<br>– as peanut*<br>– *thereof 23,2% total protein*** | <br><br>11,4 mg/kg<br>2,64 mg/kg |
| *Almond, roasted*<br>milled, mixture (23 products from USA, Europe, Australia, Western Asia)<br>– as almond*<br>– *thereof 21,1% total protein*** | <br><br>16,5 mg/kg<br>3,48 mg/kg |
| *Milk*<br>skimmed milk powder, mixture (9 products from Europe, USA)<br>– as skimmed milk powder*<br>– *thereof 33,0% total protein***<br>– *thereof casein****<br>– *thereof β-lactoglobulin**** | <br><br>10,8 mg/kg<br>3,55 mg/kg<br>2,84 mg/kg<br>0,36 mg/kg |
| *further Ingredients:*<br>*Maltodextrin, sodium sulfate and silicon dioxide* | <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=5,46 for peanut pro tein, F=5,18 for almond protein and F=6,38 for milk protein)
*** Protein contents according to literature values (approx. 80% casein and 10% β-latcoglobulin in total milk protein)

**Minimum Sample Size**

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).
The mixture homogeneity before bottling was examined 8-fold by microtracer analysis. Homogeneity was sufficient with a probability of ≥ 25% (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3) (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 | Peanut | |
|---|---|---|
| | All methods* | Method RS** |
| Number of results | 22 | 9 |
| Number of outliers | 0 | 0 |
| ***Assigned Value (Xpt)*** | ***25,1*** | ***26,9*** |
| Robust standard deviation | 7,45 | 3,84 |
| Standard uncertainty | 1,99 | 1,60 |
| Target standard deviation σpt | 6,28 | 6,71 |
| ***Target range*** | ***12,6 – 37,7*** | ***13,4 – 40,3*** |

* Results of diverse ELISA Methods
** ELISA Method: Ridascreen®, R-Biopharm

| Parameter | Almond | | |
|---|---|---|---|
| | All methods* | Method RS-F** | Method VT*** |
| Number of results | 14 | 10 | 5 |
| Number of outliers | 0 | 0 | 0 |
| ***Assigned Value (Xpt)*** | ***10,2*** | ***17,0*** | ***11,6*** |
| Robust standard deviation | 1,74 | 2,92 | 1,55 |
| Standard uncertainty | 0,580 | 1,15 | 0,866 |
| Target standard deviation σpt | 2,54 | 4,24 | 2,90 |
| ***Target range*** | ***5,09 – 15,3*** | ***8,48 – 25,4*** | ***5,79 – 17,4*** |

* Results of diverse ELISA Methods (without method RS-F)
** ELISA Method: Ridascreen® Fast, R-Biopharm
*** ELISA Method: Veratox, Neogen

| Parameter | Milk (as Milk Protein) | | Milk (as Casein) |
|---|---|---|---|
| | All methods* | Method RS-FM** | All methods* |
| Number of results | 21 | 9 | 6 |
| Number of outliers | - | 0 | 0 |
| ***Assigned Value (Xpt)*** | ***5,68*** | ***6,10*** | ***3,15*** |
| Robust standard deviation | 2,29 | 1,98 | 0,670 |
| Standard uncertainty | 0,623 | 0,825 | 0,342 |
| Target standard deviation σpt | 1,42 | 1,52 | 0,787 |
| ***Target range*** | ***2,84 – 8,52*** | ***3,05 – 9,15*** | ***1,57 – 4,72*** |

* Results of diverse ELISA Methods
** ELISA Method: Ridascreen® Fast Milk, R-Biopharm

**Reference Values qualitative PCR**

| Parameter | Peanut * | Almond * |
|---|---|---|
| Number positive | 10 | 6 |
| Number negative | 1 | 2 |
| Percent positive | 91 | 75 |
| Percent negative | 9 | 25 |
| ***Consensus value*** | ***positive*** | ***positive*** |

* Results of diverse PCR Methods (LODs positive results 0,4-10 mg/kg peanut and 0,4-10 mg/kg almond)

**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 29 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:** 19 December 2023

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

DLA Proficiency Tests GmbH
Hauptstr. 80, 23845 Oering, Germany