

PRODUCT INFORMATION SHEET

Gluten and Insects
in Spiking Level Sample (SP)
PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	DLA ptAL12 (2024) – Allergens XII: Gluten and Insects in “gluten-free” Veggy Food for Dogs (dried) with “Spiking Level Sample“ (3 different Samples) – Sample SP (Spiking Level Sample)
Identifier / LOT	RM 2024-AL12 SP
Expiry date	January 2029
Matrix	Potato Powder
Physical description	Powder
Packaging / weight	Sealed foil pouche / 15 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	Sample B	Sample SP present sample
Vegetarian dry dog food, “gluten-free” Ingredients: Potato, pea flour, potato protein, sunflower oil, yeast, minerals, beet fibre, apple fibre, vegetable protein, chicory root, herbs and fruits (raspberry, peppermint, parsley, chamomile, rose hips, liquorice root, chokeberry, fenugreek seed, blueberry, marigold, fennel), algae and positive sample: allergenic ingredients as below Nutrients per 100 g: Fat 12 g, Carbohydrates - g, Protein 20 g	100 g/100 g	99,6 g/100 g	-
Potato Powder Ingredients: Potatoes, E471, E304, E223, E100	-	-	99,9 g/100 g
Wheat flour, mixture (21 products from Europe, Asia, USA) – as wheat flour* – thereof 10,1% total protein** – calculated as gluten***	(#)	355 mg/kg 35,8 mg/kg 30,9 mg/kg	352 mg/kg 35,5 mg/kg 30,6 mg/kg
Insects Black soldier fly (<i>Hermetia illucens</i>), larvae, milled (1 product from Europe) – as insect larvae* – thereof 40,6 % total protein**		176 mg/kg 71,6 mg/kg	175 mg/kg 71,0 mg/kg
<i>further Ingredients: Maltodextrin and silicon dioxide</i>	-	<0,4 g/100g	<0,4 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=5,7 for wheat protein and F= 6,25 for insect protein)

*** Protein contents according to literature values (8,7% gluten in wheat flour [A, B])

(#) Note: The basic feed matrix contains unintended additional traces of gluten-containing cereals (see result section), oat was detected by PCR method (Sure Food Allergen Oat S7004)

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).

The mixture homogeneity after bottling 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).

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	Wheat (as Gluten)	
	All Results*	Other Methods RS**
Number of results	9	6
Number of outliers	-	-
Assigned Value (X_{pt})	47,1	54,1
Robust standard deviation	16,8	14,0
Standard uncertainty	7,00	7,1
Target standard deviation σ_{pt}	11,8	13,5
Target range	23,6 – 70,7	27,1 – 81,2

* ELISA Method: divers Methods

** ELISA Method: RS = Ridascreeen, R-Biopharm

Reference Values qualitative ELISA

Parameter	Wheat (as Gluten)*
Number positive	9
Number negative	1
Percent positive	90
Percent negative	10
Consensus value	positive

* Results of diverse ELISA Methods (LODs positive results Wheat (as Gluten) 1,0-5 mg/kg)

Reference Values qualitative PCR

Parameter	Wheat (as Wheat Flour)*	Insects (in general, as total feed item)*
Number positive	4	3
Number negative	0	1
Percent positive	100	75
Percent negative	0	25
Consensus value	positive	positive

* Results of diverse PCR Methods (LODs positive results: Wheat approximately 0,4-1,0 mg/kg, Insects 1,0 mg/kg)

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 11 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
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2 April 2025	3 February 2026