

PRODUCT INFORMATION SHEET

Coumarin in Speculoos Spread

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	<i>DLA ptTX01 (2024) Coumarin in Speculoos Spread</i>
Identifier / LOT	<i>RM 2024-TX01</i>
Expiry date	<i>March 2029</i>
Matrix	<i>Speculoos Spread</i>
Physical description	<i>Solid paste-like</i>
Packaging / weight	<i>Glass bottle / 50 g</i>
Storage conditions	<i>frozen < -18°C</i>
Name and address manufacturer	DLA - Proficiency Tests GmbH <i>Hauptstr. 80, 23845 Oering, Germany</i> <i>Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976</i> <i>eMail. pt@dla-lvu.de, website. www.dla-lvu.de</i>

Composition of Material

Ingredients	content*
Vegan Spread with speculoos biscuits and cinnamon Ingredients: 57% speculoos biscuits (wheat flour, sugar, vegetable oil (palm oil, rapeseed oil), soy flour, invert sugar, sodium hydrogen carbonate; cinnamon (<2%), nutmeg), vegetable oil (rapeseed oil, palm oil), sugar, emulsifier: soy lecithin	93,6 g / 100 g
Mixture of Ceylon and Cassia cinnamon powder Ingredients: 100 % cinnamon (<i>Cinnamomum cassia</i> ; <i>Cinnamomum zeylanicum</i>); Assigned Value (Xpt): 1369 mg/kg **	6,43 g / 100 g

* Contents according to gravimetric mixture

** assigned value (Xpt) from evaluation of ptTX01 (2021).

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 calculation of the repeatability standard deviation S_r of the participants was used as an indicator of homogeneity. For coumarin, the repeatability standard deviation was 1,39%. Thus, it was similar to corresponding repeatability standard deviations of precision data of the standardized methods (e.g. ASU methods / EN ISO methods) (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

Parameter	Coumarin
Number of results	22
Number of outliers	0
Assigned Value (X_{pt})	90,6
Robust standard deviation	12,5
Standard uncertainty	3,33
Target standard deviation σ_{pt}	7,36
Target range	75,9 - 105

94% of the results were in the target range

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 22 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.



created	approved (PT-Coordinator)	updated
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<i>signed U. Vorreiter</i>	<i>signed M. Besler-Scharf</i>	<i>signed U. Vorreiter</i>
16 April 2025	16 April 2025	2 April 2026