

PRODUCT INFORMATION SHEET

Coumarin in Pastry (Cookies)

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	<i>DLA TX01 (2022) Coumarin in Pastry (Cookies)</i>
Identifier / LOT	<i>RM 2022-TX01</i>
Expiry date	<i>March 2027</i>
Matrix	<i>Cookies</i>
Physical description	<i>Powder</i>
Packaging / weight	<i>Sealed foil pouche / 50 g</i>
Storage conditions	<i>2 - 10°C (dry and dark)</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*
<i>Spiced biscuits (speculoos)</i> Ingredients: wheat flour, sugar, palm fat, caramel sugar syrup, cinnamon, spices, baking agent: sodium hydrogen carbonate, salt nutritional values per 100 g: protein 6,0 g, carbohydrates 70 g, fat 19 g	97,1 g / 100 g
<i>Cassia cinnamon powder</i> assigned value in ptTX01 (2021): 1370 mg/kg	2,94 g / 100 g

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 $\geq 25\%$ (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3).

The calculation of the repeatability standard deviations S_r of the participants was used as an indicator of homogeneity. It is 0,72% for coumarin. Thus, this value is comparable to corresponding repeatability standard deviations of precision data of the standardized methods (e.g. ASU § 64 LFGB L 00.00-134, s. 3.6.2).

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
Numbers of results	22
Number of outliers	1
Assigned Value (X_{pt})	65,5
Robust standard deviation	3,31
Standard uncertainty	0,882
Target standard deviation opt	5,58
Target range	54,3 – 76,6

Intended Use

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

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 23 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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26 July 2023	2 April 2026