PRODUCT INFORMATION SHEET

Ergot-Alkaloids in Rye Flour *(higher content)*

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	*DLA ptMY80 (2021) Ergot-Alkaloids in Cereals (rye flour) – Sample A*
Identifier / LOT	*RM 2021-MY80 A*
Expiry date	*December 2026*
Matrix	*Rye flour*
Physical description	*Powder*
Packaging / weight	*Sealed foil pouche / 80 g*
Storage conditions	*cooled 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	**Amounts***
Rye flour 1 (low content)	43,6 g/100 g
Rye flour 2 (higher content)	43,4 g/100 g
Rye flour 3 (higher content)	13,0 g/100 g

* Contents according to gravimetric mixture

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).
The calculation of the repeatability standard deviations S_r of the participants was also used as an indicator of homogeneity. The coefficient of variation (CV_r) for all analytes ranges from 7 - 16%. Thus, they were slightly higher than the repeatability standard deviations of the corresponding official methods (e.g. ASU §64 L 15.01/02-5).

Reference Values
All reference values were derived from the related PT round (for more details see final report).

Reference Values quantitative in µg/kg

Parameter	α-Ergocryptine	α-Ergocryptinine	Ergocornine
Numbers of results°	9	8	9
Number of outliers	0	-	-
Assigned Value (Xpt)	***27,0***	***5,65***	***37,2***
Robust standard deviation	10,0	1,91	6,44
Standard uncertainty	4,15	0,846	2,68
Target standard deviation σpt	5,94	1,24	8,18
Target range	***15,1 – 38,9***	***3,16 – 8,13***	***20,8 – 53,6***

° without outliers

Parameter	Ergocorninine	Ergocristine	Ergocristinine
Numbers of results°	8	9	8
Number of outliers	0	0	0
Assigned Value (Xpt)	***11,2***	***70,5***	***18,2***
Robust standard deviation	2,80	21,1	6,80
Standard uncertainty	1,24	8,80	3,01
Target standard deviation σpt	2,45	15,5	4,00
Target range	***6,24 – 16,1***	***39,5 – 102***	***10,2 – 26,2***

° without outliers

Parameter	Ergometrine	Ergometrinine	Ergosine
Numbers of results°	9	8	9
Number of outliers	0	0	0
Assigned Value (Xpt)	***21,0***	***4,54***	***28,6***
Robust standard deviation	6,93	1,19	8,55
Standard uncertainty	2,89	0,524	3,56
Target standard deviation σpt	4,63	1,00	6,30
Target range	***11,8 – 30,3***	***2,54 – 6,54***	***16,0 – 41,2***

° without outliers

Parameter	Ergosinine	Ergotamine	Ergotaminine
Numbers of results°	8	9	8
Number of outliers	-	0	-
Assigned Value (Xpt)	***9,79***	***56,5***	***13,9***
Robust standard deviation	2,12	24,8	4,39
Standard uncertainty	0,936	10,4	1,94
Target standard deviation σpt	2,15	17,3	3,06
Target range	***5,48 – 14,1***	***21,8 – 91,2***	***7,79 – 20,0***

° without outliers

Parameter	Sum Ergot Alkaloids
Numbers of results°	9
Number of outliers	0
Assigned Value (Xpt)	***305***
Robust standard deviation	77,8
Standard uncertainty	32,4
Target standard deviation σpt	58,3
Target range	***188 – 421***

° without outliers

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 9 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.

DLA Proficiency Tests

Date: 8 January 2026

Ulrike Vorreiter
- signed U. Vorreiter