

Reference Material Pyrrolizidine alkaloids in chamomile tea

P2410-RMCh



Summary

Reference material P2410-RMCh is validated in the ring test P2410-RT, which is organised, performed, and evaluated according to the requirements of DIN EN ISO/IEC 17043 and the “International Harmonized Protocol”. ISO 13528 is considered during the evaluation of the submitted results and during homogeneity testing. Details related to the applied statistics are summarised in the full specification, which is provided after purchase of the reference material.

Reference material P2410-RMWn consists of 75 g of milled chamomile tea, which is spiked with 7 pyrrolizidine alkaloids and contains an incurred residue of intermedine (see table 1).

The reference material is validated in ring test P2410-RT with 14 laboratories. The spiked levels as well as the assigned values, which are calculated of the results of the participants of the ring test P2410-RT, are summarised in table 1.

Table 1. Spiked levels and assigned values

Parameter	Spiked level [µg/kg]	Assigned value [µg/kg]	No. of results
Europine	11	10.2	13
Heliotrine-N-oxide	23	20.8	13
Retrorsine-N-oxide *	44	38.1	14
Senecionine **	15	11.9	14
Seneciphylline-N-oxide ***	35	30.2	13
Senecivernine-N-oxide ****	12	11.7	13
Senkirkine	9.0	8.04	14
Intermedine	incurred	7.84	7

* The sum of retrorsine-NO and usaramine-NO was considered for evaluation.

** The sum of senecionine, senecivernine, and integerrimine was considered for evaluation.

*** The sum of seneciphylline-NO and spartioidine-NO was considered for evaluation.

**** The sum of senecivernine-NO and senecionine-NO was considered for evaluation.