

Reference Material Pyrrolizidine alkaloids in sage

P2609-RMSa



Summary

Reference material P2609-RMSa is validated in ring test P2609-RT, which is organised, performed, and evaluated according to the requirements of DIN EN ISO/IEC 17043 and the “International Harmonized Protocol”. DIN 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 P2609-RMSa consists of 80 g of milled dried sage, which is spiked with 8 pyrrolizidine alkaloids (see table 1). The material contains incurred residues of europine, europine-NO, and lycopsamine-NO, which are not included in the specification.

The reference material is validated in ring test P2609-RT with 10 laboratories. The spiked levels as well as the assigned values, which are calculated of the results of the participants of the ring test P2609-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
Indicine-NO* ¹	36	33.6	9
Intermedine	22	-	6
Lycopsamine	11	-	4
Sum of intermedine and lycopsamine* ²	33	32.8	9
Retrorsine-NO* ³	13	12.9	10
Senecionine-NO* ⁴	65	54.7	10
Seneciphylline* ⁵	41	33.6	10
Seneciphylline-NO* ⁶	33	29.7	10
Senkirkine	28	24.4	10

*¹ The sum of indicine-NO, intermedine-NO, lycopsamine-NO, echinatine-NO, and rinderine-NO is considered for evaluation.

*² The sum of intermedine, lycopsamine, indicine, echinatine, and rinderine is considered for evaluation.

*³ The sum of retrorsine-NO and usaramine-NO is considered for evaluation.

*⁴ The sum of senecionine-NO, senecivernine-NO, and integerrimine-NO is considered for evaluation.

*⁵ The sum of seneciphylline and spartioidine is considered for evaluation.

*⁶ The sum of seneciphylline-NO and spartioidine-NO is considered for evaluation.