

Reference Material Pyrrolizidine alkaloids and tropane alkaloids in cumin

P2507-RMCu



Summary

Reference material P2507-RMCu is validated in ring test P2507-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 P2507-RMCu consists of 80 g of milled cumin, which is spiked with 5 pyrrolizidine alkaloids and the tropane alkaloids hyoscyamine and scopolamine (see table 1). The material contains incurred residues of europine, europine-NO, heliotrine, heliotrine-NO, lasiocarpine, and lasiocarpine-NO. The incurred PAs are not included in the specification.

The reference material is validated in ring test P2507-RT with 15 laboratories. The spiked levels as well as the assigned values, which are calculated of the results of the participants of the ring test P2507-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
Retrorsine*	44	38.2	13
Usaramine-NO**	22	20.8	13
Senecionine***	60	47.9	12
Senkirkine	17	14.9	13
Monocrotaline	12	9.94	7
Hyoscyamine	25	26.8	11
Scopolamine	17.0	17.1	12

* The sum of retrorsine and usaramine is considered for evaluation.

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

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