

Reference Material Ethylene oxide and pentachlorophenol in guar gum

P2419-RT



Summary

Reference material P2419-RMGg is validated in the ring test P2419-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 P2419-RMGg consists of 50 g of guar gum, which is spiked with 2-chloroethanol and pentachlorophenol (PCP) (see table 1).

The reference material is validated in ring test P2419-RT with 11 laboratories. The spiked levels as well as the assigned values, which are calculated of the results of the participants of the ring test P2419-RT, are summarised in table 1.

Table 1. Spiked levels and assigned values

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	No. of results
Ethylene oxide (sum)*	0.27	-	7
PCP	0.073	0.0725	7

* Sum of ethylene oxide and 2-chloroethanol, expressed as ethylene oxide.

The results related to the ethylene oxide / 2-chloroethanol are evaluated with respect to the trueness criterion (70 to 120 % of the spiked level). The comparability criterion (z-score, assigned value) is not applicable due to the limited number of reported results in P2419-RT and the broad range of concentration levels, which are covered by the results. The spiked level is confirmed by the results of the participants as well as during homogeneity testing.