Facing analytical quality.

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Reference Material
Polar pesticides, QACs, and amino alcohols in fruit pouches for small children

P2513-RMFp

Summary

Reference material P2513-RMFp is validated in the ring test P2513-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 P2513-RMFp consists of 100 g of a cooked homogenate of fruits, which is commercially available as fruit pouches for small children. The homogenate is a mix of different fruits mainly apple, but also of apricots, bananas, pears, and red currants. The reference material spiked with six polar pesticides, nicotine, six quaternary ammonium compounds, and three amino alcohols (see table 1).

The corresponding unspiked fruit homogenate (100 g) is available as blank material P2513-BLFp. The blank material contains incurred residues of cyanuric acid and phosphonic acid at trace levels < 0.01 mg/kg and triethanolamine at a trace level of < 0.02 mg/kg. The blank material is free from incurred residues of all other parameters.

The reference material is validated in ring test P2513-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 P2513-RT, are summarised in table 1. Assigned values are available of chlorate, perchlorate, ethephon, phosphonic acid, and glyphosate. Assigned values related to the other parameters are not available due to limited number of data reported in P2513-RT. The spiked levels as well as an accepted range of 70 to 120 % of the spiked level are considered for evaluation of these parameters.

Table 1. Spiked levels and assigned values

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Total number of results
Chlorate	0.018	0.0163	11
Perchlorate	0.023	0.0202	11
Ethephon	0.048	0.0499	11
Phosphonic acid	0.14	0.155	11
Glyphosate	0.089	0.0853	11
Cyanuric acid	0.093	-	3
Nicotine	0.066	-	5
BAC C-10	0.017	-	6
BAC C-12	0.020	-	6
BAC C-16	0.019	-	6
BAC C-18	0.023	-	6
DDAC C-10	0.018	-	6
DDAC C-12	0.021	-	6
Morpholine	0.095	-	6
Diethanolamine	0.13	-	5
Triethanolamine	0.16	-	6