

# Reference Material

## Free acids, esters and glucosides of acidic herbicides in strawberry

P2511-RMSt



### Summary

Reference material P2511-RMSt is validated in the ring test P2511-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 P2511-RMSt consists of 100 g of strawberry homogenate, which is spiked with free acids, esters, and conjugates of acidic herbicides (see table 1).

The reference material is validated in ring test P2511-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 P2511-RT, are summarised in table 1.

*Table 1. Spiked levels and assigned values*

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Total number of results
2,4-D (sum) with hydrolysis	0.12*	0.122	10
spiked as 2,4-D-2-ethylhexyl ester	0.18		
2,4-DB (sum) with hydrolysis	0.054*	0.0349**	9
spiked as 2,4-DB-2-ethylhexyl ester	0.078		
2,4-Dichlorprop (sum) with hydrolysis	0.088*	0.0945	10
spiked as 2,4-dichlorprop-2-ethylhexyl ester	0.13		
Fluroxypyr (sum) with hydrolysis	0.046*	0.0529	9
spiked as fluroxypyr-1-methylheptyl ester	0.066		
Haloxypop (sum) with hydrolysis	0.040*	0.0431	10
spiked as haloxypop-2-ethoxyethyl ester	0.048		
MCPB (sum) with hydrolysis	0.076*	0.0795	9
spiked as MCPB glucoside	0.13		
Clopyralid (free acid, without hydrolysis)	0.24	0.224	10
Dicamba (free acid, without hydrolysis)	0.058	0.0574	9
Triclopyr (free acid, without hydrolysis)	0.027	0.0269	10

\* Calculated of the concentration level of the respective spiked ester or glucoside.

\*\* The assigned value is provided for information only. The comparability criterion is not applicable for evaluation. The results are evaluated with respect to the trueness criterion only.

The results related to acidic herbicides, which are spiked as esters or glucosides are evaluated after hydrolysis as the sum of free acids, esters, and conjugates, expressed as the free acids according to the residue definitions. Acidic herbicides, which are spiked as free acids are evaluated related to the results without hydrolysis.