

# Reference Material

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

### P2311-RMCa



- Summary -

Please note:

Reference material P2311-RMCa is a validated control material and not a certified reference material. The reference material is validated in the ring test P2311-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 P2311-RMCa consists of 120 g of a cabbage homogenate, which is spiked with nine acidic herbicides (see table 1). The corresponding unspiked cabbage homogenate (120 g) is available as blank material P2311-BLCa. The blank material is free from incurred residues of all spiked parameters.

The reference material is validated in ring test P2311-RT with 19 laboratories. The spiked levels as well as the assigned values, which are calculated of the results of the participants of the ring test P2311-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	0.086*	0.0829	19
spiked as 2,4-D ethylhexyl	0.13		
2,4-DB (sum) with hydrolysis	0.043*	0.0295	17
spiked as 2,4-DB ethylhexyl	0.062		
2,4-Dichlorprop (sum) with hydrolysis	0.047*	0.0477	19
spiked as 2,4-dichlorprop-butotyl	0.067		
2,4,5-T (sum) with hydrolysis	0.032*	0.0274	18
spiked as 2,4,5-T ethylhexyl ester	0.046		
Fluazifop (sum) with hydrolysis	0.030*	0.0283	19
spiked as fluazifop-P butyl ester	0.035		
Haloxyfop (sum) with hydrolysis	0.085*	0.0811	19
spiked as haloxyfop p-methyl ester	0.088		
MCPA (sum) with hydrolysis	0.10*	0.0917	19
spiked as glucoside	0.18		
Clopyralid (free acid, without hydrolysis)	0.035	0.0341	17
Triclopyr (free acid, without hydrolysis)	0.059	0.0563	18

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