

# Ring test

## Polar pesticides in milk

### P2002-RT



## Summary

The entire report is made available to participants only.

Designed, realised and evaluated by

**PROOF-ACS GmbH**  
**Bremen, Germany**

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A handwritten signature in blue ink that reads "Schindler".

Dr. Birgit Schindler

The proficiency test evaluates the performances of laboratories with respect to their ability to quantify polar pesticides in milk.

10 laboratories across three European countries (Austria, Germany, and Italy) took part in the test.

Organic milk (UHT milk, 1.5 % fat) is used as raw material. The milk is tested for incurred residues. No incurred residues of the spiked parameters were detected in the blank material (RL: 0.01 mg/kg).

In order to prepare the test material, the milk is spiked with

*chlorate, chlormequat chloride, mepiquat chloride, melamine, glyphosate, BAC C-8, BAC C-10, BAC C-12, DDAC C-8, and DDAC C-10.*

The performance of laboratories in the test is evaluated according to

- the comparability of the results. The evaluation of the comparability is based on the z-score model. The z-score should be at least  $\leq |2|$ . The comparability criterion is not applicable to chlormequat, mepiquat, melamine, and glyphosate due to the low number of reported results.
- the trueness of the results. The trueness is expressed as the coverage of the spiked level in %. The coverage should be at least between 70 and 120 % of the spiked level. The trueness criterion is applied to all parameters.

## Results

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Total number of results	Comparability criterion: no. of participants, with z-score $\leq  2 $	Trueness criterion: no. of participants with results within 70-120 % recovery of the spiked level
Chlorate	0.026	0.0254	8	8	8
Chlormequat chloride	0.035	-	6	Not evaluated	5
Mepiquat chloride	0.020	-	6	Not evaluated	4
Melamine	0.45	-	5	Not evaluated	4
Glyphosate	0.025	-	6	Not evaluated	5
BAC C-8	0.018	0.0197	8	8	8
BAC C-10	0.032	0.0297	9	9	9
BAC C-12	0.023	0.0229	9	9	7
DDAC C-8	0.019	0.0209	9	8	6
DDAC C-10	0.028	0.0284	9	8	8

BAC C-8: Benzyltrimethyloctylammonium chloride; BAC C-10: Benzyltrimethyldecylammonium chloride; BAC C-12: Benzyltrimethyldodecylammonium chloride; DDAC C-8: Dimethyldioctylammonium chloride; DDAC C-10: Didecyltrimethylammonium chloride