Ring test
Polar pesticides and bromide in grapes
P2518-RT

Summary

The entire report is available to participants only.

The ring test was designed, realised, evaluated, and authorised on behalf of PROOF-ACS GmbH by

Dr. Birgit Schindler
Managing Director PROOF-ACS GmbH
Project coordinator

The report was approved by

Dr. Birgit Schindler
cn=Dr. Birgit Schindler,
o=PROOF-ACS GmbH,
ou=Managing Director,
email=proof@proof-acs.de,
c=DE
2025.12.05 11:16:33 +01'00'

Dr. Birgit Schindler

Participants with any comments or concerns related to this ring test are invited to contact:

PROOF-ACS GmbH
Gottlieb-Daimler-Str. 1
28237 Bremen
Phone: +49 421 388 928 50
E-mail: proof@proof-acs.de
www.proof-acs.de

DAkkS
Deutsche
Akkreditierungsstelle
D-EP-22211-01-00

PROOF-ACS is a DAkkS accredited proficiency testing provider according to DIN EN ISO/IEC 17043:2023 (D-EP-22211-01-00). This ring test is covered by the scope of accreditation.

PROOF-ACS GmbH does not have any analytical laboratory facilities of its own. Homogeneity testing and stability testing are subcontracted to laboratories, accredited according to DIN EN ISO 17025. The subcontracted laboratory may also participate in the ring tests. If so, the laboratory is treated in the same way as other participants and the same rules of confidentiality apply.

The proficiency test evaluates the performances of laboratories with respect to their ability to quantify polar pesticides and bromide in grapes. Ten laboratories across five countries (Austria, Germany, Italy, Spain, and Peru) took part in the proficiency test.

The test material is prepared of organic grapes, which are homogenised in a Robot Coupe R20 V.V.. The unspiked material is provided as blank material upon request. The blank material is tested for incurred residues. No incurred residues are detected.

To prepare the test material, the raw material was spiked with

- amitrole, chlorate, perchlorate, ethephon, phosphonic acid (basic module),
- glyphosate, AMPA, and glufosinate (module 1), and
- sodium bromide (module 2).

The laboratories were free to choose to analyse all parameters within the scope of the test or a selection thereof. None of the labs reported results related to amitrole.

10 labs took part in the test. 9 labs reported results and are considered for evaluation. All 9 labs ordered the basic module, while 8 labs ordered module 1, and 4 labs ordered module 2.

The report contains an assessment related to

- 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.
- the *comparability* of the results. The evaluation of the comparability is based on the z-score model. The absolute values of z-score should be at least ≤ 2. The comparability criterion is applied to all parameters except bromide.

A summary of the results of the participants is provided in the table below.

To summarise:

- Ten laboratories took part in the tests. Nine labs reported results and are considered for evaluation.
- Amitrole is not included in the evaluation as none of the labs reported results.
- The labs are familiar with the analysis of the polar pesticides of the basic module. 6 out of 10 labs reported satisfying results related to all parameters of the basic module (amitrole not considered for evaluation).
- 5 out of 8 labs reported satisfying results related to all three parameters of module 1 (glyphosate, AMPA, and glufosinate).
- 2 out of 4 labs pass the trueness criterion related to bromide.

Results:

Parameter	Spiked level [mg/kg]	Assigned value [mg/kg]	Assigned value in % of the spiked level	No. of results	No. of results with |z-score| ≤ 2	No. of results within 70-120 % of the spiked level
Amitrole	0.045	-	-	0	-	-
Chlorate	0.13	0.126	97	8	8	7
Perchlorate	0.062	0.0617	99	8	8	6
Ethephon	0.27	0.286	106	9	9	8
Phosphonic acid	0.27	0.265	98	9	7	7
Glyphosate	0.035	0.0345	99	8	7	7
AMPA	0.027	0.0262	97	8	7	6
Glufosinate	0.25	0.228	91	7	5	5
Bromide (inorg.)	2.5	-	-	4	not applicable	2