

University of Stuttgart

**Institute for Sanitary Engineering,
Water Quality and Solid Waste
Management**

AQS Baden-Württemberg

University of Stuttgart
ISWA • AQS BW • Bandtäle 2 • 70569 Stuttgart • GERMANY

To all laboratories interested in the analysis
of metabolites of pesticides in aqueous sam-
ples

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Date
Stuttgart, 18 December 2009

AQS PT Round PT 2/10

TW O5 – Special organic analytes in drinking water - metabolites of pesticides

Dear Madam or Sir,

in March 2010, AQS BW and IWW Water Centre will carry out the above mentioned interlaboratory study on metabolites of pesticides, also under the umbrella of the NORMAN Network of Reference Laboratories for Monitoring of Emerging Environmental Pollutants (<http://www.norman-network.net>).

As this interlaboratory round is the European extension of a national interlaboratory study for proficiency testing of drinking water laboratories, it will be executed according to the recommendations of the German Federal Environment Agency from December 2003 "for the execution of PTs for the measurement of chemical parameter and indicator parameter for the external quality control of drinking water laboratories" (Bundesgesundheitsblatt 46 **12**, 1094-1095).

But as the issue of metabolites of pesticides is considered an emerging issue also at the European scale, we invite also other European laboratories to participate in this interlaboratory study.

Provided a sufficient number of laboratories participate, we offer also to include a method-specific evaluation of the results in order to get an overview of the comparability of results obtained by different methods across European Member States.

We consider this an important contribution towards an increasing quality and comparability of analytical data on this category of emerging pollutants, and therefore fully in line with the objectives of the NORMAN Network.

If you are interested in participation, please complete, sign and return the enclosed registration form.

Registration deadline: 29. January 2010

You can also register for this PT round online via our website <http://www.aqsbw.de>.

Please consider our general terms and conditions of business for the execution of the PT.

If we receive your application after the deadline we can not guarantee that participation will be possible.

The production of PT samples in this dimension is accompanied with high effort. You support us if you register early.

For formal reasons we confirm your application by sending a registration confirmation by fax. If you do not receive this registration confirmation, you are not registered.

If you analyse only up to two analytes in this PT round the participation fee will be reduced from 330 € to 200 €.

You will get more detailed information together with the samples.

If you have any questions, please do not hesitate to contact us:

AQS Baden-Württemberg, Bandtäle 2, 70569 Stuttgart, Germany

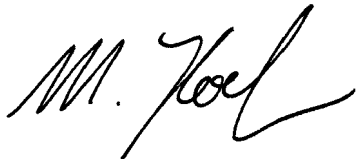
Phone: +49 711 685 65446

Telefax: +49 711 685 63769

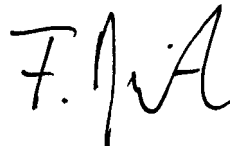
E-Mail: info@aqsbw.de

Contact: Heidi Sanwald, Dr. Frank Baumeister, Dr. Michael Koch

Best regards



Dr.-Ing. Michael Koch
Scientific director AQS



Dr.-Ing. Frank Baumeister
PT manager

Annex:

Details of the proficiency test exercise

Terms and conditions (Allgemeine Geschäftsbedingungen)

Registration form

Details of PT 2/10

TW 05 – Special organic analytes in drinking water – metabolites of pesticides (last update: December 2009)

Analytes

metabolite	metabolite of
Desphenylchloridazon "metabolite B" Methyl-Desphenylchloridazon "metabolite B1"	Chloridazon
R417888 R611965	Chlorothalonil
CGA 50266 „Dimethachloric acid“ CGA 354742 „Dimethachlor sulfonic acid“ CGA 369873	Dimethachlor
M27	Dimethenamid-P
BH 479-4 „Metazachloric acid“ BH 479-8 „Metazachlor sulfonic acid“	Metazachlor
CGA 62826 (racemic form) CGA 108906	Metalaxyl-M
CGA 51202 „S-Metolachloric acid“ (racemic form) CGA 354743 „S-Metolachlor sulfonic acid“ (racemic form)	S-Metolachlor
DMS (N,N-Dimethylsulfamid)	Tolyfluand
BH 635-4 / 635M01	Tritosulfuron
Glyphosate	-
AMPA	-

Matrix

Drinking water

Dates and deadlines

- Registration deadline: 29.01.2010

Please register for this PT with the enclosed registration form or via our website (<http://www.aqsbw.de>).

- Dispatch of the samples: 08.03.2010
- **Deadline for submission of results: 26.03.2010, 24:00h in written form to the provider. Results submitted after the deadline will be not accepted.**

Sample dispatch

Samples will be sent by courier service.

Sample details

Sample details are not yet fixed. We will take care that enough sample material will be provided. We will inform you in due time.

Permitted analytical methods

Participants are free to choose a suitable method.

Limit of quantification

The analytical method must achieve a limit of quantification of **0.05 µg/l** for all parameters.

Examples for sources for reference substances

Metabolite	Supplier
Desphenylchloridazon "metabolite B" Methyl-Desphenylchloridazon "metabolite B1"	Dr. Ehrenstorfer GmbH
R417888 R611965	Syngenta; distributed by TGZ AQS Baden-Württemberg
CGA 50266 „Dimethachloric acid“ CGA 354742 „Dimethachlor sulfonic acid“ CGA 369873	Syngenta; distributed by TGZ AQS Baden-Württemberg
M27	BASF AG; distributed by TGZ AQS Baden-Württemberg
BH 479-4 „Metazachloric acid“ BH 479-8 „Metazachlor sulfonic acid“	BASF AG; distributed by TGZ AQS Baden-Württemberg
CGA 62826 (racemic form) CGA 108906	Syngenta; distributed by TGZ AQS Baden-Württemberg
CGA 51202 „S-Metolachloric acid“ (racemic form) CGA 354743 „S-Metolachlor sulfonic acid“ (racemic form)	Syngenta; distributed by TGZ AQS Baden-Württemberg
DMS (N,N-Dimethylsulfamid)	Dr. Ehrenstorfer GmbH
BH 635-4 / 635M01	BASF AG; distributed by TGZ AQS Baden-Württemberg
Glyphosate	Dr. Ehrenstorfer GmbH
AMPA	Dr. Ehrenstorfer GmbH

This list is non-exhaustive. There may be other suppliers available in your country.

Ordering of reference substances:

TGZ AQS-Baden-Württemberg:

Please contact Dr. Frank Baumeister or Mrs. Heidi Sanwald (preferably by e-mail: info@agsbw.de, phone +49 711 685-65446) with reference to this PT round. Please indicate the exact delivery address (no P.O. box), contact person and phone number.

Dr. Ehrenstorfer GmbH

Please contact Dr. Ehrenstorfer GmbH, Augsburg, GERMANY, directly.

Execution of the analysis

The samples must be analysed in the own laboratory with own personnel and own equipment. Subcontracting of the analysis is not allowed.

Assessment of the single values

If possible, the standard deviation for proficiency assessment $\hat{\sigma}$ will be taken from the variance function for the calculation of the z_U -Scores according to DIN 38402 - A45 (chapter 10.4) or ISO/TS 20612 respectively. $\hat{\sigma}$ will be limited as follows:

- lower limit: 5 %
- upper limit: 25 %

A z-score is calculated for each measurement result derived from the assigned value x_a and the standard deviation for proficiency assessment:

$$z - \text{Score} = \frac{\text{result} - x_a}{\hat{\sigma}}$$

The z-score will be modified to a z_U -Score with a correction factor for proficiency assessment (as described in DIN 38402-A45 and ISO/TS 20612).
The tolerance limit is defined as $|z_U|=2$.

Overall assessment

There is no overall assessment of the proficiency test round, but the single parameters are assessed.

A parameter is assessed as successful, if more than half of the values are correctly determined (2 out of 3 values are within the tolerance limits).

Not successful are:

- 1) Values which are not determined (if the other samples of this parameters are analysed),
- 2) Values, which are indicated with "lower than limit of quantification",
- 3) Values, which are subcontracted,
- 4) Values, which are submitted after the deadline of submission of results.

Participation fee

The participation fee will be 330 € plus transport costs.

If you apply to participate with a maximum of two parameters, the fee is reduced to 200 €



University of Stuttgart
Germany

**Institute for Sanitary Engineering, Water Quality
and Solid Waste Management
Department of Hydrochemistry
Prof. Dr. Jörg W. Metzger**

General Terms and Conditions of Business

1. General Provisions:

The university shall perform exclusively pursuant to the General Terms and Conditions as presented hereinafter, unless otherwise provided for in a separate written agreement. Customer terms and conditions that supplement or are different hereto shall herewith be rejected.

2. Assignment of Orders

The issuance of a purchase order to the university as well as any form of contract execution must be in writing. Additions or amendments of any kind to a university bid or to an agreement currently in existence must be in writing. Promises and/or information given verbally or through electronic means (i.e. facsimile, telex, e-mail) shall be nonbinding and not enforceable.

3. Remuneration:

The price specified in the offer or in the agreement is not a fixed price in as much as nothing else is agreed to in writing. If the price agreed on should not suffice in order to obtain an optimal result, then the university will inform the customer thereof and proffer suggestions about the continued course of action. Each contractually agreed upon payment must be paid into an account specified by the university either within 30 days of the customer's receipt of the university's invoice, or on the contractually agreed upon payment dates. Value added tax must be separately invoiced and paid, when applicable. The university may only commence performance after prepayments have been paid into its account.

4. Work Product / Inventions:

The agreed upon provision in the offer or in the agreement shall be applicable. However, in cases where there is no provision therefore the following shall be applicable: the customer shall receive an irrevocable and non-exclusive right of use for the consequential results. The customer shall reimburse the university an amount, which is to be agreed upon, for expenses relating to the registration, retention and defense of proprietary intellectual property rights, which have arisen during the course of contractual performance under the agreement. If the customer uses the proprietary intellectual property rights then he/she/it shall be obligated to reimburse any employee inventor remuneration incurred.

5. Confidentiality / Publication:

The university shall not disclose to third parties and shall keep confidential all technical and business information received from the customer by reason of this agreement. This obligation shall survive the duration of the agreement inasmuch and provided that such information is not otherwise generally known, or the customer has waived in writing the provision for non-disclosure and confidentiality. Taking into consideration the legal obligations of a university, the university may publish the results of its work achieved within the context of this agreement in the usual scientific form upon prior agreement with the customer. Upon agreement and coordination with the university, the customer shall also be entitled to publish. However, an intended publication may be delayed for the time necessary to complete any dissertations, thesis work, or the registration of proprietary intellectual property rights. The obligations set forth in this provision shall be applicable for 2 years following the completion of the project.

6. Warranty and Liability:

The liability of the university, its legal representatives, agents, employees and/or assigns for a breach of this agreement or tortuous behavior shall be limited to cases of intent, gross negligence, or a breach of a material obligation, which forms the essence of the agreement. In cases of grossly negligent behavior, liability for damages shall be limited to provable losses in the amount of the contractual

consideration. Liability for consequential damages or losses shall be excluded. The university warrants the application of reasonable scientific care and diligence in addition to compliance with recognized principles of technology, but does not guarantee the actual achievement of any research and development goals.

The university shall entrust the appropriate employees with the execution of the work as provided for pursuant to this agreement, who then shall be obligated to comply with the provisions of this agreement, inasmuch as such is legally permissible. The university shall have the right to cure any defects, which may arise. In the event that the university is unable to cure, the customer may choose to either abate the consideration received under the agreement, or rescind the agreement in its entirety. Any and all other forms of remedy are hereby excluded. The duration of any and all warranties or guarantees shall be limited to six months after the delivery of the research and development results. This shall also apply for any and all warranty and guarantee claims, which are not subject to statutory warranty or guarantee provisions.

7. Third Party Intellectual Property Rights:

The customer shall be immediately informed in the event it is discovered during the course of performance by an agent or employee of the university that there are third party proprietary intellectual property rights in existence, which are relevant to the work being performed within the scope of this agreement. Neither the university, nor its agents, employees or assigns are obligated to conduct an investigation into the existence, validity or enforceability of such rights.

8. Agreement Termination:

This agreement can be prematurely terminated upon three-month's notice if:

- it is ascertainable that the expected result can not be achieved, or can not be achieved without substantially exceeding budgeted costs or the scheduled time frame;
- or
- extraordinary circumstances occur, which would make the

continuation of this agreement futile. In the case of premature termination of agreement, the contractual parties shall come to an accord on how best to wind-up any outstanding contractual matters. The customer shall pay pursuant to section 3 hereof any accrued expenses incurred by the university up until the date of termination.

9. Miscellaneous:

No extraneous agreements, nor amendments or additions to this agreement shall be legally binding and enforceable unless in writing. The place of performance for purposes of this agreement shall be Stuttgart, Germany. This agreement shall be governed by and construed and interpreted in accordance with the laws of the Federal Republic of Germany. If any suit or action is filed by any party based upon this agreement, venue shall be in the federal German courts having jurisdiction for the City of Stuttgart, Germany, inasmuch as such is legally permissible.

10.

The English text is only a nonbinding service. Only the German text, which also is handed out, legally is substantial and obligatory therefore.

The German text (Allgemeine Geschäftsbedingungen) is available on <http://www.aqsbw.de/pdf/agb.pdf>.

Registration for the proficiency test round “Special organic analytes“ in drinking water

For remarks of the
organizer

Our laboratory will take part in the proficiency test
"TW O5 – Special organic analytes - provided by
AQS Baden-Württemberg. The participation fee of € 330,00
plus transportation costs will be paid after receipt of the
invoice. I took note of the terms and conditions.

For remarks of the
organizer

Obligation:

Our laboratory will perform the analyses in our own laboratory,
with own personnel and own equipment.

Details of our laboratory:

	Type or print legibly
Name of the laboratory	
Street	
Postal code, City	
Delivery address (if different from the above address)	
Billing address (if different from the above address)	
Country	
Phone / Fax	
E-Mail	
Contact person	
We participate with a maximum of 2 parameters	parameters: _____

date: _____

signature (legally binding): _____

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