

CRL-Web-Service

An Information Exchange Platform aiming at
Strengthening the CRL/ NRL-Network



Hubert Zipper

CRL for Pesticide Residues
using Single Residue Methods

Main Tasks of the CRLs for Residues of Pesticides

Summary (among others)*:

- To promote **research, development and validation** of new analytical methods
- To establish a **network between**
CRLs ↔ NRLs ↔ official control labs
- To **inform** NRLs about new advances in methods and equipment



→ **Creation of a laboratory network**

→ **Coordination of information flow within it.**

* See www.crl-pesticides.eu / About CRL

CRL - SRM

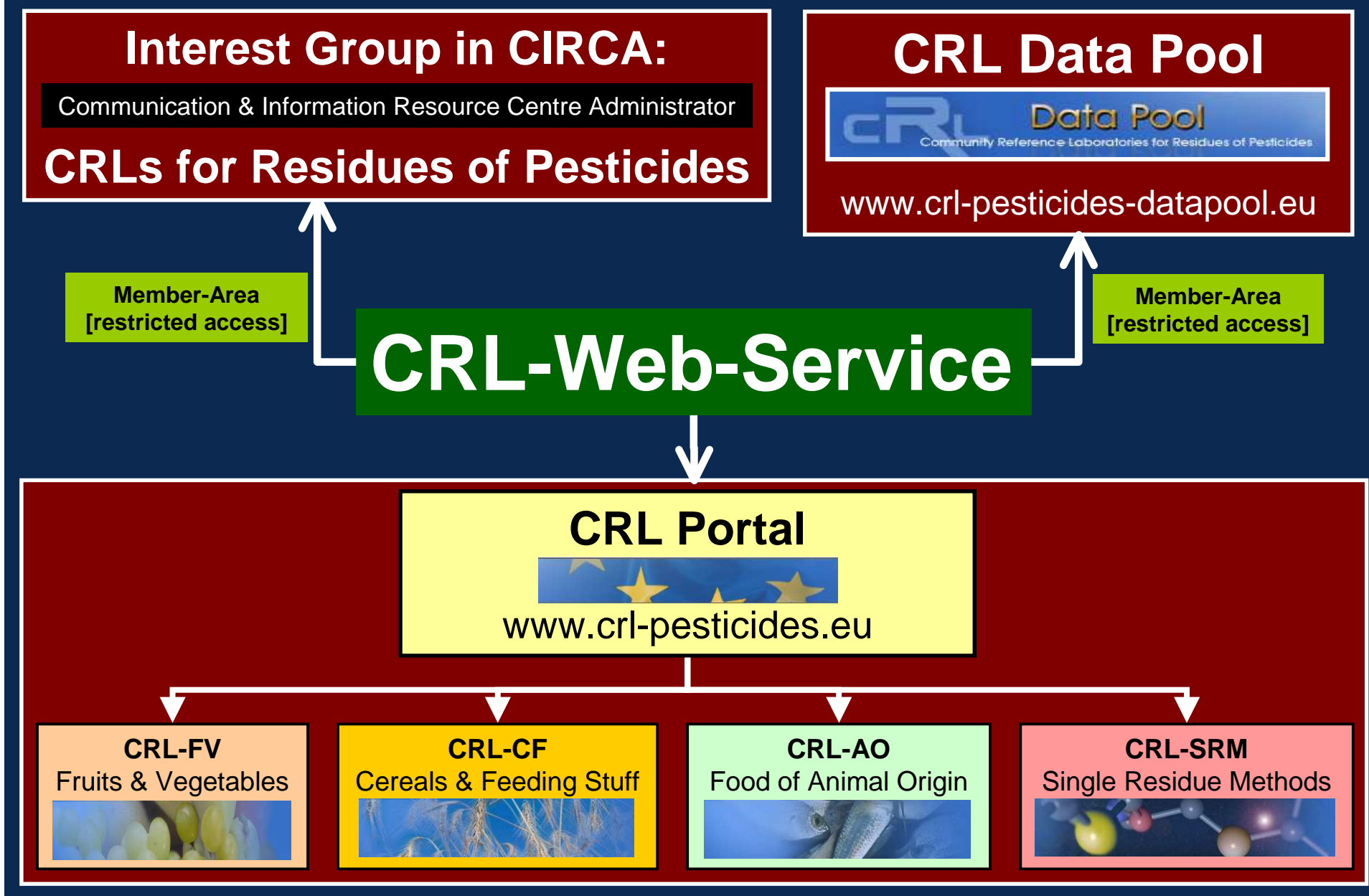
CRL Workshop and Training Course
Valencia, Sept. 2007

Community Reference Laboratory
for **Pesticide Residues**
using **Single Residue Methods**

Principle structure of the CRL-Web-Service

CRL-Web-Service

Principle structure of the CRL-Web-Service



CRL Portal - www.crl-pesticides.eu

Community Reference Laboratories for Residues of Pesticides



You are here: Home

**CRL
Portal**

**CRL for
Fruits and Vegetables**

**CRL for
Cereals and Feeding Stuff**

**CRL for
Food of Animal Origin**

**CRL for
Single Residue Methods**

Topics

Global Information
[About CRL](#)

Proficiency Tests
[EUPT-FV-LC1](#)

[EUPT-FV-09](#)

[EUPT-SRM-01](#)

[EUPT-C1-SRM2](#)

Workshops
[Workshop Overview](#)

Latest News

03-08-2007 | CVUA Stuttgart

[Analysis of PCP in Guar Gum by Modified QuEChERS-Method](#)

Considerable findings of PCP in depolymerised guar gum from India lead to numerous notifications in the Rapid Alert System for Food and Feed. The CRL for Single Residue Methods modified the QuEChERS-Method in order to enable the analysis of PCP in guar gum.

06-06-2007 | Generalitat Valenciana & Universidad de Almería

[2007 CRL Workshop and Training Course](#)

On behalf of the Organising Committee, we are pleased to invite the Official Laboratories on Pesticide Residues to attend the 2007 COMMUNITY REFERENCE LABORATORY (CRL) WORKSHOP AND TRAINING COURSE FOR PESTICIDE RESIDUES, which will be held in Valencia (Spain), from 26th-

Search

Go!

Pinboard

06-06-2007

[CRL workshop and training course 26th-29th September in Valencia \(Spain\)](#)

21-03-2007

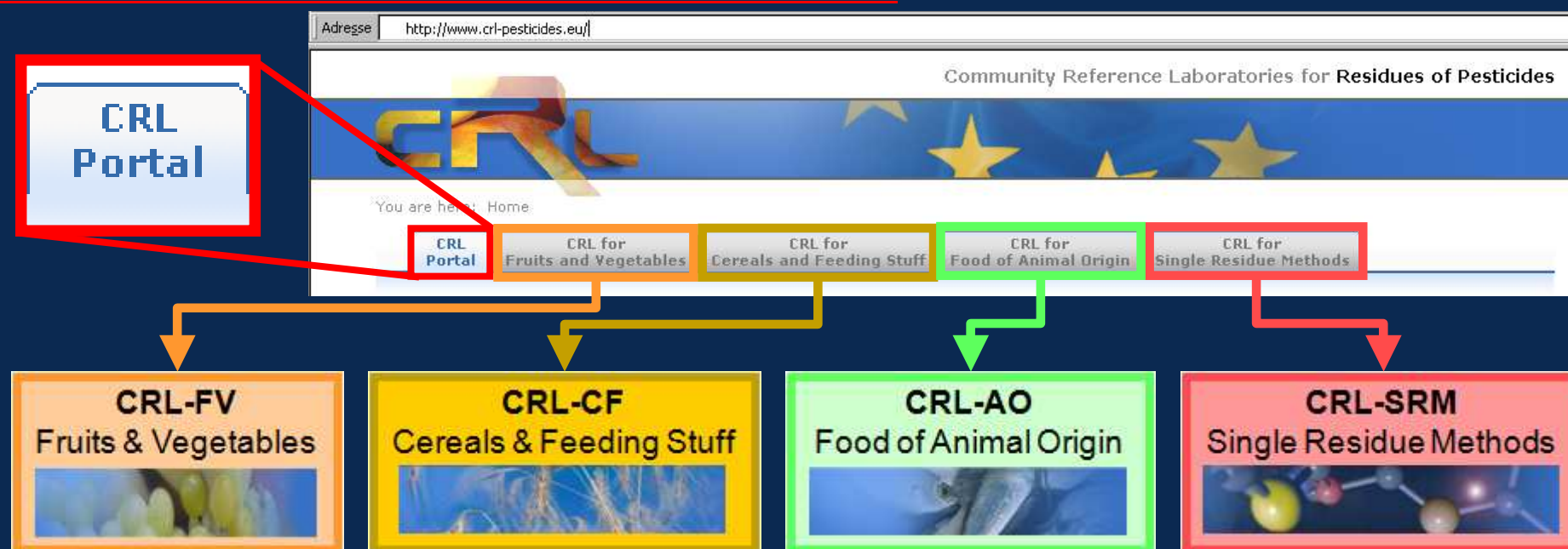
[9th Proficiency Test for Pesticides in Fruits and Vegetables \(EUPT-FV-](#)

CRL - SRM

CRL Workshop and Training Course
Valencia, Sept. 2007

Community Reference Laboratory
for Pesticide Residues
using Single Residue Methods

CRL Portal - www.crl-pesticides.eu



- One common entrance-website for all four CRLs
- In a second layer, each of the four CRLs has an individual website (containing its own specific information)

⇒ A single website installed for the 4 CRLs
⇒ Easy navigation between the Central-Homepage and the 4 specific CRL-Websites.

CRL Portal - www.crl-pesticides.eu



CRL Portal is directed to experts working ...

- within the **CRL/NRL/Official Labs network** (primarily)

Result of CRL-Survey 2006:

labs stated that it is essential, very useful or useful that the CRL Portal entails announcements about:

- a) new pesticides and methods** 98% (45 %, 33 %, 20 %);
- b) new legislations** 98% (43 %, 32 %, 23 %);
- c) meetings** 98% (23 %, 38 %, 38 %).

- in the **field of pesticide residues**
- other visitors (incl. general public) are offered brief info about the CRL's mission and activities

CRL Portal - Information offered



Content (among others):

- basic introductory information about the CRLs
- news (new methods) and announcements (workshops)
- links to CRL-run databases (e.g. CRL Data Pool)
- links to hidden documents within the CIRCA platform

CRL Portal - Principle Structure

The screenshot shows the CRL Portal homepage. At the top is a banner with the CRL logo and the text 'Community Reference Laboratory'. Below this is a 'Main-Navigation bar' containing links: 'CRL Portal', 'CRL for Fruits and Vegetables', 'CRL for Cereals and Feeding Stuff', 'CRL for Food of Animal Origin', and 'CRL for Single Residue Methods'. On the left is a 'Sub-Navigation bar' with sections: 'Topics' (Global Information, Proficiency Tests, Workshops, Information Management), 'Latest News' (featuring an article about PCP analysis), and a 'Pinboard' (listing events like a workshop in Valencia and a proficiency test). A 'Search-Button' is located next to a search input field. A large black box with white text states: 'Messages from any CRL-lab will appear here.' Callouts in red, yellow, blue, and green highlight these specific areas.

Main-Navigation bar

Search-Button

Sub-Navigation bar

Pinboard-Area
for spec. announcements

Messages from any CRL-lab will appear here.

You are here: [Home](#) : [Single Residue Methods](#) : [About us](#) | [Instrumentation](#)[CRL Portal](#)[CRL for Fruits and Vegetables](#)[CRL for Cereals and Feeding Stuff](#)[CRL for Food of Animal Origin](#)[CRL for Single Residue Methods](#)

Topics

[Our Team](#)[Instrumentation](#)[Proficiency Tests](#)[EUP-TRM-01](#)[EUP-TRM-02](#)[Methods](#)[Archive](#)[Workshops](#)[Workshop Overview](#)[Contact](#)[Basics](#)[Travel Information](#)[Accommodation](#)

After clicking on „Our Team“

Our Team

Please click images to read individual vita.

CRL-SRM



After clicking on picture

Team Member Data Sheet

Salutation: Dr.

Surname: Michaelangelo

Name: Anastasiadis

Nationality: German, Cypriot

Profession: food chemist

Education: MSc in Food Chemistry (University of Stuttgart), PhD thesis at the University of Hohenheim (Supervisor: Prof. Dr. W. Schwach), Topic: "Development of Fast Methods for the Analysis of Pesticide Residues in Food Employing Supercritical Fluid Extraction - a Contribution for the Reduction of Analytical Deficits in Pesticide Residue Analysis".

Professional experience: 1998 - 2000: food chemist at the Pesticide Residue Laboratory of CVUA Stuttgart; conduction of two research projects dealing with the use of supercritical fluid extraction for the analysis of pesticide residues in food; 2000 - 2002: visiting scientist at the USDA in Wyndmoor, Pennsylvania, USA and research on various topics including the development of a fast and easy multiresidue method for the analysis of pesticide residues in food.

After clicking on „Travel Information“

You are here: [Home](#) : [Single Residue Methods](#) : [Contact](#) | [Travel information](#)[CRL for Fruits and Vegetables](#)[CRL for Cereals and Feeding Stuff](#)[CRL for Food of Animal Origin](#)[CRL for Single Residue Methods](#)

Topics

[About us](#)[Our Team](#)[Instrumentation](#)[Proficiency Tests](#)[EUP-TRM-01](#)[EUP-TRM-02](#)

Travel information

CVUA Stuttgart

CRL for Residues of Pesticide using Single Residue Methods

Schaafandstr. 3/2

70736 Fellbach

...traveling by airplane and train


Two **S-Bahn** trams go directly from the airport and the main railway station of Stuttgart to Fellbach: **S2** and **S3** in the directions **Waiblingen**, **Schorndorf** or **Backnang**. It takes approx. 40 minutes from the airport (ticket for 3 zones) and 12 minutes from the main station (ticket for 2

CRL Portal - Technical information

- Database used: **Microsoft Access 2000**
- All web-pages are **dynamically-generated**; browser language is according to XHTML 1.0
- The scripting language is “**Active Server Pages**”; server based on Windows platform with “Jet OLEDB 4.0” provider
- The CRL-website is **compatible to the different web browsers**:
 - Mozilla Firefox (1.5 and higher)
 - Microsoft Internet Explorer 7.0
 - Opera (8.54 and higher)
 - Netscape 7.1

CRL Portal - Link to CIRCA/ CRL Data Pool

Community Reference Laboratories for Residues of Pesticides



You are here: Home

CRL Portal | CRL for Fruits and Vegetables | CRL for Cereals and Feeding Stuff | CRL for Food of Animal Origin | CRL for Single Residue Methods


Topics

- Global Information**
About CRL
- Proficiency Tests**
EUPT-FV-LC1
EUPT-FV-09
EUPT-SRM-F1
EUPT-C1-SRM2
- Workshops**
Workshop Overview
- Info Management**
CRL Data Pool
CIRCA

Info Management

- CRL Data Pool
- CIRCA

Link to CRL Data Pool:
www.crl-pesticides-datapool.eu



Link to CIRCA:
<https://fis-vl.bund.de>
Please contact CRL-AO

CRL Data Pool: Collection/ Distribution of Information



CRL Data Pool

www.crl-pesticides-datapool.eu



Aim of CRL Data Pool:

→ provide analysts with a
convenient and efficient access to
information needed for proper
decision-making in pesticide residue
analysis

CRL - SRM

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Community Reference Laboratory
for Pesticide Residues
using Single Residue Methods

Data Pool of the CRL for Residues of Pesticides

- Website: www.crl-pesticides-datapool.eu



- CRL Data Pool contains the following databases:
 - **Method Validation Data**
 - **Pesticides**
 - **Commodities** (not yet installed)
 - **CRL Network** (not yet installed)
 - **Analytical Methods** (not yet installed; in cooperation with *ad hoc* working group on Methods of Analysis and Sampling, CCPR)

CRL Data Pool: How to use the service?

- **Online-Registration** to the CRL Data Pool is necessary!

The screenshot shows the CRL Data Pool website. A red arrow points to the 'Registration' link in the top navigation bar. Another red arrow points to a large 'Registration' button in the main content area. A red box highlights the 'Registration' button. A dark red speech bubble points to the registration form with the text 'Fill-in the requested information and submit.'.

Adresse <http://www.crlpesticides.eu/default.aspx?set=register&ziel=asp/en/profile.aspx>

Data Pool
Community Reference Laboratories for Residues of Pesticides

Jump to...

[Login](#) [Registration](#) [Method Validation Data](#) [Commodities](#) [Pesticides](#) [CRL Network](#)

Registration

Dear User!

If you are a member of the CRL Data Pool, you can access the registration page.

To register, please fill in the following information:

*= Required fields are marked with an asterisk.

Contact Information

Title:

First Name*: Last Name*:

Phone Number: Email*:

Fax Number: Web Address:

Street, Nr.*: Building/Room:

City/State*: Country*:

Postal Code*: Company/Organization*:

Department:

Login Information

Forum Name*: Forum Name will appear as author's name (for use in Pesticides-Online)

Username*:

New Password*:

Verify Password*:

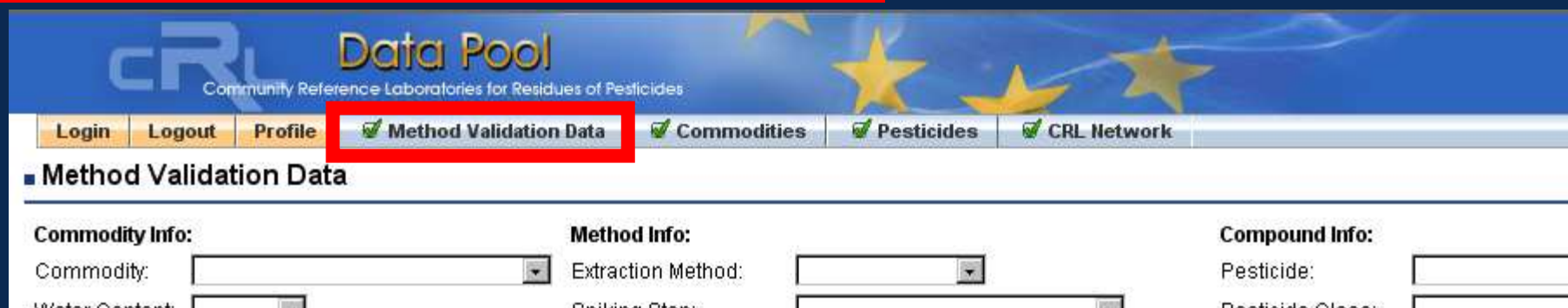
Work Sector

If 'Other', please specify:

Type of Work

→ You will be contacted by the administrator.

CRL Data Pool: Method Validation Data



The screenshot shows the CRL Data Pool web interface. At the top, there is a header with the CRL logo and the text 'Data Pool' and 'Community Reference Laboratories for Residues of Pesticides'. Below the header is a navigation bar with buttons for 'Login', 'Logout', 'Profile', 'Method Validation Data' (highlighted with a red box), 'Commodities', 'Pesticides', and 'CRL Network'. The main content area is titled 'Method Validation Data' and contains three sections: 'Commodity Info:', 'Method Info:', and 'Compound Info:'. Each section has input fields for data entry.

Commodity Info:	Method Info:	Compound Info:
Commodity: <input type="text"/>	Extraction Method: <input type="text"/>	Pesticide: <input type="text"/>
Water Content: <input type="text"/>	Spiking Level: <input type="text"/>	Pesticide Class: <input type="text"/>

- Online since April 2007
- Database for **storage of data** generated within the aim of **method validation experiments in various laboratories.**
- Enables
 - **systematic collection** (names of pesticides, commodities, methods of analysis, spiking levels, recovery results in %, ...)
 - **customized retrieval** of data produced during method validation in different laboratories.

Method Validation Data: How to use the service?

- After login, click on button „Method Validation Data“!



Method Validation Data: Query Section

Filter options
for commodity

Filter options
for extraction method,
ISTD, Cleanup, ...

Filter options
for compound

Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile Method Validation Data Pesticides CRL Network

Method Validation Data

Commodity Info:

Commodity:
Water Content:
Fat Content:
Sugar Content:
Etheric Oils:
Chlorophyll:
pH-Value:
Fermented:

Method Info:

Extraction Method:
Spiking Step:
Extraction pH:
ISTD:
ISTD Addition Step:
Cleanup:
Cleanup Details:
Post-Cleanup Details:
Chromatography:
Interface:
Detector:
Calibration:
Calibration Details:

Compound Info:

Pesticide:
Pesticide Class:
Pesticide Property:
General Info:
Lab Name:
Date [dd.mm.yyyy]: from to
Validation Context:
Context Details:
Exclude Outliers: ☒
Experiment No.: **Show Experiment**

Number of Hits **Detailed Result List** **Aggregated Result List** **Short Overview List** **Long Overview List** **Clear** **Print**

Some queries may take a few moments longer to process. Please do not click the query buttons more than once. It is advisable to check the query by clicking on "Number of Hits" first.

Buttons allowing various
aggregation steps

Method Validation Data: „Detailed Result List“

**System
performs online
calculations**

N° of hits

462 hits

Aggregation mode 1

Aggregation mode 2

All important experimental
parameters are shown!

Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile **Method Validation Data** Co

Method Validation Data - Detailed Result List

Filter:

Pesticide	2,4-D
Extraction Method	QuEChERS
Exclude Outliers	on

Detailed Result List **Sort by Commodity & Aggregate** Sort by Level & Aggregate Close

Exp No	Lab	Pesticide	Commodity	Extraction	Level	Rec	Outl	Context	Context Details	pH	Clear	Ch	Post	Chr	Interface	Detector	Calib	Calib Details	ISTD	ISTD Addition	Spiking Step	Exp Date	Note
2	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.25	100		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
2	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.25	100		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
2	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.25	96		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
4	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.025	100		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
4	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.025	99		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
4	Germany - Stuttgart (CVUA)	2,4-D	Apple	QuEChERS	0.025	100		Interlab. test	GDCh 2005	pH 5-5.5 (Citrate)	None	None	None	LC	ESI (neg)	Triple Quad.	Matrix matched, same Matrix	2-point, bracketing	Nicarbazine (ISTD)	After add. of solvent	Commodity (bef. extraction)	15.03.05	
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Method Validation Data: „Sort by Commodity & Aggregate“

→ Database performs online calculations.

All important experimental parameters are shown!

Login

Logout

Profile

Method Validation Data

Commodities

Pesticides

CRL Network

Method Validation Data - Detailed Result List

Result List

Sort by Commodity & Aggregate

Sort by Level & Aggregate

Close

Results for 2,4-D (Classification: Aryloxyalkanoic acids)

Aggregated

Exp

Lab

Commodity

Level

Factor

Rec mean

Rec min

Rec max

Rec median

Rec group

CV [%] mean

CV [%] min

CV [%] max

Date

of outliers

Experiment

2020

Latvia - Riga

Cucumber

0,01

108

91

126

104

70-120

15,2

01.11.06

0

Aggregation line for 2,4-D in Cucumber at Spiking level 0,01 mg/kg

One level

5

0,01

30

107

82

136

106

70-120

13,9

3,5

15,2

0

All levels

5

3

61

105

72

136

105

70-120

13,3

0

15,2

0

Experiment

2019

Germany - Hagen

Grapes, dried (only f. Valid. Data)

0,01

4

pH 5-5.5 (Citrate)

None

LC

ESI (neg)

Triple Quad.

103

86

128

99

70-120

19,7

02.11.06

0

Aggregation line for 2,4-D in Raisin at Spiking level 0,01 mg/kg

One level

4

0,01

19

101

86

128

97

70-120

11,8

3,6

19,7

0

Experiment

1615

Germany - Erlangen

Wheat flour (only Valid. Data)

89

86

92

90

70-120

3,2

20.10.06

0

One level

1

89

86

92

90

70-120

3,2

3,2

3,2

0

Experiment

1614

Germany - Erlangen

Wheat flour (only Valid. Data)

100

94

105

99

70-120

4,1

20.10.06

0

One level

1

100

94

105

99

70-120

4,1

4,1

4,1

0

Aggregation line for all commodities at various spiking levels

Altogether

7

27

5

284

98

50

136

99

70-120

14,9

0

19,7

0

Method Validation Data

Commodities

Pesticides

CRL Network

Method Validation Data - Detailed Result List

Result List

Sort by Commodity & Aggregate

Sort by Level & Aggregate

Close

Results for 2,4-D (Classification: Aryloxyalkanoic acids)

Aggregated

Exp

Lab

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Rec mean

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20.10.06

0

One level

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70-120

3,2

3,2

3,2

0

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1614

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Wheat flour (only Valid. Data)

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4,1

20.10.06

0

One level

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70-120

4,1

20.10.06

0

One level

1

100

94

105

99

70-120

4,1

4,1

4,1

0

Aggregation line for all commodities at various spiking levels

Altogether

7

27

5

284

98

50

136

99

70-120

14,9

0

19,7

0

Method Validation Data

Commodities

Pesticides

CRL Network

Method Validation Data - Detailed Result List

Result List

Sort by Commodity & Aggregate

Sort by Level & Aggregate

Close

Results for 2,4-D (Classification: Aryloxyalkanoic acids)

Aggregated

Exp

Lab

Commodity

Level

Factor

Rec mean

Rec min

Rec max

Rec median

Rec group

CV [%] mean

CV [%] min

CV [%] max

Date

of outliers

Experiment

2020

Latvia - Riga

Cucumber

0,01

108

91

126

104

70-120

15,2

01.11.06

0

Aggregation line for 2,4-D in Cucumber at Spiking level 0,01 mg/kg

One level

5

0,01

30

107

82

136

106

70-120

13,9

3,5

15,2

0

All levels

5

3

61

105

72

136

105

70-120

13,3

0

15,2

0

Experiment

2019

Germany - Hagen

Grapes, dried (only f. Valid. Data)

0,01

4

pH 5-5.5 (Citrate)

None

LC

ESI (neg)

Triple Quad.

103

86

128

99

70-120

19,7

02.11.06

0

Aggregation line for 2,4-D in Raisin at Spiking level 0,01 mg/kg

One level

4

0,01

19

101

86

128

97

70-120

11,8

3,6

19,7

0

Experiment

1615

Germany - Erlangen

Wheat flour (only Valid. Data)

89

86

92

90

70-120

3,2

20.10.06

0

One level

1

89

86

92

90

70-120

3,2

3,2

3,2

0

Experiment

1614

Germany - Erlangen

Wheat flour (only Valid. Data)

100

94

105

99

70-120

4,1

20.10.06

0

One level

1

100

94

105

99

70-120

4,1

4,1

4,1

0

Aggregation line for all commodities at various spiking levels

Altogether

7

27

5

284

98

50

136

99

70-120

14,9

0

19,7

0

Method Validation Data

Commodities

Pesticides

CRL Network

Method Validation Data - Detailed Result List

Result List

Sort by Commodity & Aggregate

Sort by Level & Aggregate

Close

Results for 2,4-D (Classification: Aryloxyalkanoic acids)

Aggregated

Exp

Lab

Commodity

Level

Factor

Rec mean

Rec min

Rec max

Rec median

Rec group

CV [%] mean

CV [%] min

CV [%] max

Date

of outliers

Experiment

2020

Latvia - Riga

Cucumber

0,01

108

91

126

104

70-120

15,2

01.11.06

0

Aggregation line for 2,4-D in Cucumber at Spiking level 0,01 mg/kg

One level

5

0,01

30

107

82

136

106

70-120

13,9

3,5

15,2

0

All levels

5

3

61

105

72

136

105

70-120

13,3

0

15,2

0

Experiment

2019

Germany - Hagen

Grapes, dried (only f. Valid. Data)

0,01

4

pH 5-5.5 (Citrate)

None

LC

ESI (neg)

Triple Quad.

103

86

128

99

70-120

19,7

02.11.06

0

Aggregation line for 2,4-D in Raisin at Spiking level 0,01 mg/kg

One level

4

0,01

19

101

86

128

97

70-120

11,8

3,6

19,7

0

Experiment

1615

Germany - Erlangen

Wheat flour (only Valid. Data)

89

86

92

90

70-120

3,2

20.10.06

0

One level

1

89

86

92

90

70-120

3,2

3,2

3,2

0

Experiment

1614

Germany - Erlangen

Wheat flour (only Valid. Data)

100

94

105

99

70-120

4,1

20.10.06

0

One level

1

100

94

105

99

70-120

4,1

4,1

4,1

0

Aggregation line for all commodities at various spiking levels

Altogether

7

27

5

284

98

50

136

99

70-120

14,9

0

19,7

0

Method Validation Data

Commodities

Pesticides

CRL Network

Method Validation Data - Detailed Result List

Result List

Sort by Commodity & Aggregate

Sort by Level & Aggregate

Close

Results for 2,4-D (Classification: Aryloxyalkanoic acids)

Aggregated

Exp

Lab

Commodity

Level

Factor

Rec mean

Rec min

Rec max

Rec median

Rec group

CV [%] mean

CV [%] min

CV [%] max

Date

of outliers

Experiment

2020

Latvia - Riga

Cucumber

0,01

108

91

126

104

70-120

15,2

01.11.06

0

Method Validation Data: „Aggregated Result List“

CRL Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile Method Validation Data Commodities Pesticides CRL Network

Method Validation Data

Commodity Info:

Commodity:
Water Content:
Fat Content:
Sugar Content:
Etheric Oils:
Chlorophyll:
pH-Value:
Fermented:

Method Info:

Extraction Method:
Spiking Step:
Extraction pH:
ISTD:
ISTD Addition Step:
Cleanup:
Cleanup Details:
Post Cleanup Details:
Chromatography:
Interface:
Detector:
Calibration:
Calibration Details:

General Info:

Pesticide:
Pesticide Class:
Pesticide Property:
General Info:
Lab Name:
Date [dd.mm.yyyy]: from to
Validation Context:
Context Details:
Exclude Outliers: ☒
Experiment No.: [Show Experiment](#)

[Number of Hits](#) [Detailed Result List](#) [Aggregated Result List](#) [Short Overview List](#) [Long Overview List](#) [Clear](#) [Print](#)

Some queries may take a few moments longer to process. Please do not click the query buttons more than once. It is advisable to check the query by clicking on "Number of Hits" first.

Buttons allowing various aggregation steps

Method Validation Data: „Aggregated Result List“

Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile **Method Validation Data** Commodities Pesticides CRL Network

Method Validation Data

Commodity Info:

Commodity: Extraction Method: Pesticide:
Water Content: Spiking Step:
Fat Content: Extraction pH:
Sugar Content: ISTD:
Ethereal Oils: ISTD Addition Step:
Chlorophyll: Cleanup:
pH-Value: Cleanup Details:
Fermented: Post-Cleanup Details:
Chromatography:
Interface:
Detector:
Calibration:
Calibration Details:

General Info:

Lab Name:
Date [dd.mm.yyyy]: from to
Validation Context:
Context Details:
Exclude Outliers: ☒
Experiment No.: **Show Experiment**

Number of Hits **Detailed Result List** **Aggregated Result List** **Short Overview List** **Long Overview List** **Clear** **Print**

Some queries may take a few moments longer to process. If you have waited more than once, it is advisable to check the query by clicking on "Number of Hits" first.

Aggregated Result List

Spiking Level [mg/kg]	<= 0,01	> 0,01 - 0,05	> 0,05 - 0,25	> 0,25	All levels
# of labs	8	3	8	0	8
# of experiments	30	51	46	0	127
# of recoveries	145	87	230	0	462
# of commodities	6	25	9	0	28
Min. rec.	55	50	41		41
Max. rec.	136	120	122		136
Mean rec.	98	88	94		94
CV %	16,1	20,7	14		16,3
Median rec.	130	96	95		96
% of rec. with < 50%	0	0	1		1
% of rec. with 50% - 69%	7	21	4		8
% of rec. with 70% - 120%	88	79	94		89
% of rec. with > 120%	5	0	1		2

Aggregation mode 3

Overview for pesticide 2,4-D with calculated data

Method Validation Data: „Short Overview List“

Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile **Method Validation Data** Commodities Pesticides CRL Network

Calibration Details:

Number of Hits Detailed Result List Aggregated Result List **Short Overview List** Long Overview List Clear Print

Short Overview List

Pesticide	Level min	Level max	Rec Median	Rec Mean	CV [%]	# of rec	% Rec (70-120%)	# of Labs
2,4,5-T	0,01	0,1	100	99,2	15,6	221	91	6
2,4,5-T-Methylester	0,01	0,1	110	102,7	10,7	21	100	1
2,4,5-TP	0,01	0,1	86	99,1	11,6	231	95	6
2,4-D	0,01	0,25	115	96,8	16,8	357	87	7
2,4-DB	0,01	0,1	104	97,3	17,8	151	85	4
4-CPA	0,01	0,1	103	96,6	16,1	200	90	6
Abamectin (sum)	0,01	0,1	55	87,6	20,8	73	77	2
Acephate	0,01	0,75	90	83,8	16,1	230	89	5
Acetamiprid	0,01	0,25	111	97,5	10	534	96	12
Acibenzolar-S-Methyl	0,01	2,5	84	78,2	23,2	118	67	2
Acronifen	0,01	0,2	79	90,4	21,6	95	77	5
Acrinathrin	0,01	1	62	91,8	23	150	82	6
Alachlor	0,05	1	106	100,3	6,2	42	100	2
Aldicarb	0,01	0,2	93	92,8	22,3	284	85	6
Aldicarb-Sulfon	0,01	0,2	109	86,9	24,9	117	88	4
Aldicarb-Sulfoxid	0,01	0,2	90	82,9	17,7	117	82	4
Aldrin	0,0321	1	89	97,7	13,5	53	96	4
Allethrin	0,05	1	101	100,9	5,4	32	100	1
Ametryn	0,05	1	99	100,4	8	42	100	2
Aminocarb	0,01	0,2	94	84,6	9,8	60	93	1
Atrazine	0,01	2,5	87	94,6	9,3	84	100	3

Overview List 1

Overview for an extraction method

Method Validation Data: „Long Overview List“

[Login](#)
[Logout](#)
[Profile](#)
[Method Validation Data](#)
[Commodities](#)
[Pesticides](#)
[CRL Network](#)

Method Validation Data

Commodity Info:
Commodity:
Water Content:
Fat Content:
Sugar Content:
Ethereic Oils:
Chlorophyll:
pH-Value:
Fermented:

Extraction Method:
Extraction pH:
ISTD:
ISTD Addition Step:
Cleanup:
Cleanup Details:
Post-Cleanup Details:
Chromatography:
Interface:
Detector:
Calibration:
Calibration Details:

Compound Info:
Pesticide:
Pesticide Class:
Pesticide Property:
General Info:
Lab Name:
Date [dd.mm.yyyy]: from to
Validation Context:
Context Details:
Exclude Outliers: ☒
Experiment No.: [Show Experiment](#)

[Number of Hits](#)
[Detailed Result List](#)
[Aggregated Result List](#)
[Short Overview List](#)
[Long Overview List](#)
[Clear](#)
[Print](#)

Some queries may take a few moments longer to process. Please do not click the query buttons more than once. It is advisable to check the query by clicking on "Number of Hits" first.

Long Overview List

2,4,5-T		0,01	0,1	93	96	14,8	310	93	7
LC Acidic		0,01	0,1	111	100	11,7	41088	97	7
LC Dry (cereals, dry pulses)		0,01	0,1	98	92	8,5	28632	100	6
LC Sugar containing		0,01	0,1	90	92	19	25680	85	5
LC Water containing		0,01	0,1	77	98	16,2	30380	88	6
2,4,5-TP		0,01	0,1	96	97	13,1	311	95	7
LC Acidic		0,01	0,1	98	102	10,5	41088	97	7
LC Dry (cereals, dry pulses)		0,01	0,1	94	98	8,7	28676	99	6
LC Sugar containing		0,01	0,1	99	88	17,1	25680	90	5
LC Water containing		0,01	0,1	100	97	13	37664	95	7
2,4-D		0,01	0,25	96	94	16,3	462	89	8
LC Acidic		0,01	0,25	112	99	11,3	55212	95	7
LC Dry (cereals, dry pulses)		0,01	0,1	94	89	15	34240	88	7

Overview List 2

Detailed overview for an extraction method

Method Validation Data: **Some Statistics**

- currently data for QuEChERS- and ChemElut Method
→ but Method Validation Database is
flexible to receive data from any other method!
- Recovery data for **QuEChERS** / **ChemElut**:
 - more than **80.000** / **18.000** individual recoveries
 - **532** / **246** compounds
 - **45** / **63** commodities (apple, raisin, lemon, ...)
 - **18** / **8** labs data submitted
- Recovery data of **S19** will be submitted soon from different labs.

Method Validation Data: Give & Take

The quality and extent of this database also greatly relies on the contributions that the users make!



You're welcome to submit validation data from your lab!

But how to submit?

CRL - SRM

CRL Workshop and Training Course
Valencia, Sept. 2007

Community Reference Laboratory
for Pesticide Residues
using Single Residue Methods

Method Validation Data: Data Submission via Excel-file

- **We offer a Data Submission-Format** (→ Excel-file)
If you are interested, please contact us!
- If you have huge amounts of recovery data, we will try to transform your data into our data-format.
- Download **Data Submission File** from CRL Data Pool-Website:



- **Data Submission File:** = Excel-file

[illegible]

Method Validation Data: What kind of Validation Data?

CRL Data Pool
Community Reference Laboratories for Residues of Pesticides

Login Logout Profile **Method Validation Data** Commodities Pesticides CRL Network

Method Validation Data

Commodity Info:	Method Info:	Compound Info:
Commodity: <input type="text"/>	Extraction Method: <input type="text"/>	Pesticide: <input type="text"/>
Water Content: <input type="text"/>	Spiking Step: <input type="text"/>	Pesticide Class: <input type="text"/>
Fat Content: <input type="text"/>	Extraction pH: <input type="text"/>	Pesticide Property: <input type="text"/>
Sugar Content: <input type="text"/>	ISTD: <input type="text"/>	General Info:
Etheric Oils: <input type="text"/>	ISTD Addition Step: <input type="text"/>	Lab Name: <input type="text"/>
Chlorophyll: <input type="text"/>	Cleanup: <input type="text"/>	Date (dd.mm.yyyy): from <input type="text"/> to <input type="text"/>
pH-Value: <input type="text"/>	Cleanup Details: <input type="text"/>	Validation Context: <input type="text"/>
Fermented: <input type="text"/>	Post-Cleanup Details: <input type="text"/>	Context Details: <input type="text"/>
	Chromatography: <input type="text"/>	Exclude Outliers: <input type="text"/>
	Interface: <input type="text"/>	
	Detection: <input type="text"/>	Experiment No.: <input type="text"/> Show Experiment
	Calibration: <input type="text"/>	
	Calibration Details: <input type="text"/>	

Number of Hits Detailed Result List Aggregated Result List Short Overview List Long Overview List Clear Print

Some queries may take a few moments longer to process. Please do not click the query buttons more than once. It is advisable to check the query by clicking on "Number of Hits" first.

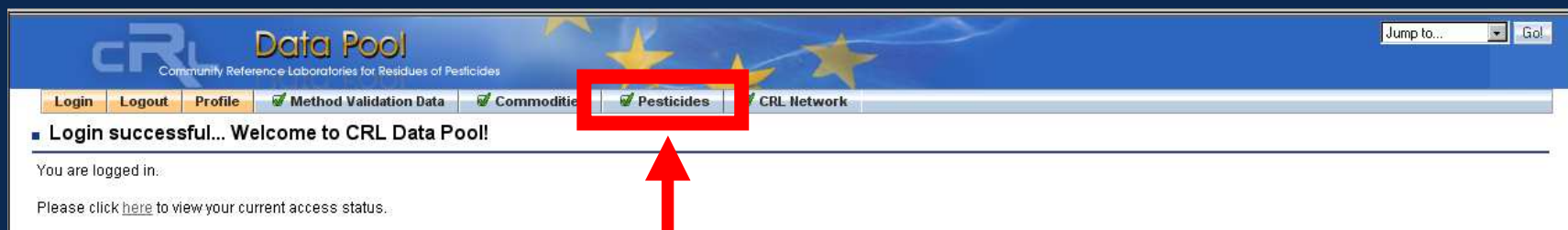
Validation Context:

Routine on-going validation
Interlab. test
Internal validation

You can contribute different recovery data from your method validation experiments (**routine on-going validation; interlab. tests; internal validation**).

CRL Data Pool: Pesticides Database

- After login, click on button „Pesticides“!



CRL Data Pool: Pesticides Database

Data Pool
Community Reference Laboratories for Residues of Pesticides

Jump to... Go

Login Logout Profile Method Validation Data Commodities Pesticides CRL Network

Pesticides - This page is still under construction.

Pesticide Class: Pyrethroid

Pesticide:

Show Clear Help Print

Sort by: Pesticide Water solubility

Printing option

Sorting options for the results

Click here to see the „Pesticide Data Sheet“

Physicochemical, Toxicological and Analytical Information for More than 850 Pesticides and Metabolites

Pesticide	Pesticide Class	MW	Water solubility [mg/L]	Log Kow	Volatility [Pa]	GC-amenable	Remarks on GC-behaviour	GC-ECD	GC-NPD	GC-MSD	GC-MSD CI pos	GC-MSD CI neg	ESI pos	ESI neg	APCI pos	APCI neg
Acrinathrin	Pyrethroid	541,4	0,02	5,6	4,4E-08	Yes		+++	++	++	++	+++	NoData	++	NoData	NoData
Allethrin	Pyrethroid	302,4		4,96	0,00016	Yes		+++	0	+	+++	+++	NoData	NoData	NoData	NoData
Alphamethrin , Alpha-Cypermethrin	Pyrethroid	416,3	0,01										NoData	NoData	NoData	NoData
Bifenthrin	Pyrethroid	422,9	0,001										NoData	NoData	NoData	NoData
Bioallethrin , d-trans-Allethrin	Pyrethroid												NoData	NoData	NoData	NoData
Bioresmethrin	Pyrethroid												NoData	NoData	NoData	NoData
Cycloprothrin	Pyrethroid												NoData	NoData	NoData	NoData
Cyfluthrin (incl. beta-)	Pyrethroid	434,3	0,0012										NoData	NoData	NoData	NoData
Cyfluthrin, beta-	Pyrethroid	434,3	0,0012										NoData	NoData	NoData	NoData
Cyhalothrin	Pyrethroid	449,9	0,005										NoData	NoData	NoData	NoData
Cyhalothrin, lambda-	Pyrethroid	449,9	0,005										NoData	NoData	NoData	NoData
Cypermethrin	Pyrethroid	416,3	0,004										NoData	NoData	NoData	NoData
Deltamethrin , Decamethrin	Pyrethroid	505,2	0,0002										NoData	NoData	NoData	NoData
Empenthrin	Pyrethroid	274,4	0,11										NoData	NoData	NoData	NoData
Fenfluthrin	Pyrethroid	389,2											NoData	NoData	NoData	NoData
Fenpropathrin	Pyrethroid	349,4	0,014										NoData	NoData	NoData	NoData
Fenvalerate/Esfenvalerate (RR/SS)	Pyrethroid												NoData	NoData	NoData	NoData
Fenvalerate/Esfenvalerate (RS/SR)	Pyrethroid												NoData	NoData	NoData	NoData
Fenvalerate/Esfenvalerate (sum)	Pyrethroid	419,9	0,01	5,01									NoData	NoData	NoData	NoData
Flucythrinate	Pyrethroid	451,5	0,5	4,7	1,2E-06	Yes	2 peaks	++	+	++	NoData	+++	NoData	NoData	NoData	NoData
Flumethrin	Pyrethroid	510,4														
Fluvalinate	Pyrethroid	502,9	0,005	3,8	1,3E-05	Yes		+++	++	++	+	+++	NoData	NoData	NoData	NoData
Fluvalinate, tau-	Pyrethroid	502,9	0,001	4,26	9E-11	Yes		+++	++	+++	++	+++	NoData	NoData	NoData	NoData
Permethrin	Pyrethroid	391,3	0,006	6,1		Yes	2 isomers (cis and trans)	++	0	++	NoData	+	NoData	NoData	NoData	NoData
Prallethrin	Pyrethroid	300,4	8	4,49	1,3E-05	Yes		+++	0	++	NoData	+++	NoData	NoData	NoData	NoData
Resmethrin	Pyrethroid	338,4	0,0379	5,43	1E-05			+	0	++	NoData	NoData	NoData	NoData	NoData	NoData
Tefluthrin	Pyrethroid	418,7	0,02	6,4	0,0084	Yes		+	0	+++	+++	+++	NoData	NoData	NoData	NoData
Tetramethrin , Phthalthrin	Pyrethroid	331,4	1,83	4,6	0,0021	Yes	2 peaks	+++	++	+++	++	+++	NoData	NoData	NoData	NoData

Valencia, Sept. 2007

CRL Data Pool: Pesticides Database

METHAMIDOPHOS (Acephate-met) 10265-92-6

Pesticide Class: Organophosphorous

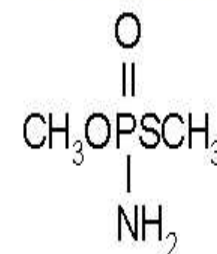
Mode of Action: Acaricide Insecticide

PHYSICOCHEMICAL AND TOXICOLOGICAL DATA

MW / Molecular Formula	141,1 / C ₂ H ₈ NO ₂ PS
Water Solubility [mg/L] / pKow	200000 > (20°C) [1] / -0,8 (20°C)
pKa	
Vapour pressure [Pa]	0,0023 [1]
ARfD / ADI [mg/kg bw]	0,01 [7] / 0,004 [7]
Endocrine Disruption	
Add. Info.	Metab. of Acephate
Residue Definition	

Physicochemical and Toxicological Data

Methamidophos



ANALYTICAL DATA

TYPICAL RECOVERY USING VARIOUS MULTIRESIDUE METHODS (in %)					GC-BEHAVIOR				
Method	0-20	20-50	50-70	70-110	Remarks	GC-amenable	Yes	Matrix Effects	++
QuEChERS (MeCN)				X		Decomposition	0	Tailing	+++
Stuttgart (Acetone)						Decomposition Products			
SFE (CO2)	X				[3]				
DFG S 19 (Acetone)			X						
Dutch (Acetone)									
Canadian (MeCN)			X						
CDFA (MeCN)									
Swedish (EtAc)									
L. Alder (MeOH)				X		MS/MS EI (+)	NoData	141>95	141>64
Stajnbaher (Acetone, SPE)	X					NPD / ECD / FPD	+++/0/+++		

Analytical Data

LC-BEHAVIOR									
Ionization Source	Sensitivity	MS (m/z)			MS/MS-Transitions			MS/TOF	
ESI (+)	+++	142	112	125	142>94	142>125	142>112	142,0086	
ESI (-)	NoData								
APCI (+)	++	142	125						
APCI (-)	NoData								

Analytical Data

CRL Data Pool: Pesticides Database

METHAMIDOPHOS (Acephate-met) 10265-92-6

PHYSICOCHEMICAL AND TOXICOLOGICAL DATA

MW / Molecular Formula	141,17 C ₂ H ₈ N ₂ PS
Water Solubility [mg/L] / pKow	200000 > (20°C) [1] / 3.8 (20°C) [1]
pKa	
Vapour pressure [Pa]	0,0023 [1]
ARfD / ADI [mg/kg bw]	0,01 [7] / 0,004 [7]
Endocrine Disruption	
Add. Info.	Metab. of Acephate
Residue Definition	

Physicochemical data:

- pKa
- Water solubility
- ...

Toxicological data:

- ARfD
- ADI

ANALYTICAL DATA

TYPICAL RECOVERIES USING VARIOUS MULTIRESIDUE METHODS (in %)					
Method	0-20	20-50	50-70	70-110	Remarks
QuEChERS (MeCN)				X	[2]

GC-BEHAVIOR			
GC-amenable	Yes	Matrix Effects	++
Decomposition	0	Tailing	+++
Decomposition Products			

<http://www.pesticides-online.com> - Reference - Microsoft...

Methamidophos
Water Solubility
[1]
 Author: C. D. S. Tomlin
 Title: The e-Pesticide Manual
 Year of Publication: 2002
 Journal/Book: <http://www.bcp.c.org>
 Publisher: 12th Edition, Version 2.2, The British Crop Protection Council

Stuttgart (Acetone)
SFE (CO ₂)
DFG S 19 (Acetone)
Dutch (Acetone)
Canadian (MeCN)
CDFA (MeCN)
Swedish (EtAc)
L. Alder (MeOH)
Stajnbacher (Acetone)
Ionization
ESI (+)
ESI (-)
APCI (+)
APCI (-)

Detector	Sensitivity	Spectrum	m/z		
MSD EI (+)	+	CLICK	141	94	95
MSD CI (+)	NoData				
MSD CI (-)	0				
TOF EI (+)	NoData				
MS/MS EI (+)	NoData		141>95	141>64	
NPD / ECD / FPD	+++/0/+++				

MS/MS-Transitions			MS/TOF		
142>125	142>112	142,0086			

Summary

- **CRL Web Service** aims to create a laboratory network and to enable an information exchange between the labs.
- **CRL Portal** = a single website created for the 4 CRLs
- **CRL Data Pool** = database system for the **collection of information** relevant in pesticide residue analysis **& its evaluation** to assist the decision-making process
- **Method Validation Data** enables the **systematic collection + customized retrieval** of method validation data for pesticides.
- **Method Validation Data can perfectly** help labs in identifying and selecting methods that are able to cover the analytes and commodities in question.
- A lot of features have been already installed, but the both database systems are continuously being improved to better serve the practical needs of analysts.
- **You are welcome to submit data (validation data) from your lab!**

Thank you very much for your Attention !

→ **CRL Portal:** <http://www.crl-pesticides.eu>



→ **CRL Data Pool:** <http://www.crl-pesticides-datapool.eu>



CRL - SRM

CRL Workshop and Training Course
Valencia, Sept. 2007

Community Reference Laboratory
for **Pesticide Residues**
using **Single Residue Methods**