Eurachem Newsletter 11
Winter 1996/1997

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The EURACHEM Secretariat, PO Box 46, TEDDINGTON, Middlesex, TW11 0NH, UNITED KINGDOM
Tel + 44 181 943 7614 Fax + 44 181 943 2767 Email: eurachem@lgc.co.uk
Internet http://www.vtt.fi/ket/eurachem.html
Editor: Keith Marshall. *Additional copies available from Mr David Binney*

Eurachem Newsletter No 11 Winter 1996/97

The EURACHEM Executive Meeting

Eurachem Headline News

EURACHEM Executive

Executive Gives Approval to Revised Guide to EURACHEM

During the September meeting of the EURACHEM Executive in Noordwijkerhout (NL), approval was given for the updated version of *A Structural Guide and Overview of EURACHEM*. The document gives details about EURACHEM, its membership, structure and present activities. Subject to minor modifications, this document should shortly be available from the Secretariat, and EURACHEM's World-wide Web site.

Other topics covered at The Executive meeting included:

- The possible publication of a paper detailing EURACHEM's role and position with respect to accreditation of analytical laboratories.
- The approval of a formal membership application process.
- Policy regarding EURACHEM's endorsement of documents, and the production of joint guidance documents.

Also discussed were plans for EURACHEM's 10th anniversary in either 1999 (10 years after the first EURACHEM meeting) or 2000 (10 years after the signing of the EURACHEM Memorandum of Understanding). Naturally, plans are in their infancy at present. However, more details will be given as and when they are available.

If you want further information about EURACHEM or wish to obtain a copy of the new guide to EURACHEM, please contact: The EURACHEM Secretariat

Keith Marshall
EURACHEM Secretariat

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Last updated on 02.02.1997 By Eurachem WebMaster

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News from all over Europe (9 items)

Eurachem News

1. EURACHEM-Sk Maintain a High Local Profile in 1996
2. Central European Conference on Reference Materials CERM '96
3. EURACHEM-Finland Discuss Benchmarking
4. EURACHEM / EUROMET Interface Group
5. Steady Progress Towards a Draft Guide to Non-Routine Analysis
6. EURACHEM-CH Takes QA in Analytical R&D to Task
7. Towards the Establishment of EURACHEM-Cyprus
8. AOAC on the Internet
9. A New EAL / EURACHEM / EUROLAB Working Group for PT

EURACHEM Slovakia

EURACHEM-Sk Maintain a High Local Profile in 1996

Over 70 delegates attended the second meeting of EURACHEM-Sk in June this year.

During this meeting the members of the EURACHEM Sk Board were elected. Prof. Ján Garaj took over as Chair and Dr. Dusan Kordík and Dr. Viliam Pätoprstý as Vice Chairs.

During 1996, the Board maintained a high profile by disseminating EURACHEM information at:

- *"Quality Assurance of Chemical and Biochemical laboratories"*
  (A workshop held in January 1996, in Bratislava)
- *Modern Trends in the Evaluation of analytical methods and procedures"*
  (Two training Courses in May & October 1996, in Bratislava)
- The international conference on reference materials CERM'96 (Oct. 1996, Liptovský Ján)

Further activities included the participation of 13 Slovak laboratories in IMEP 6, as well as the translation of the EURACHEM Guide *"Quantifying Uncertainty in Analytical Measurement"* into the Slovak language. This Guide is now available.

EURACHEM Slovakia

Central European Conference on Reference Materials CERM '96

LIPTOVSKÝ JÁN, Slovakia, 30 September 4 October 1996

More than 100 scientists, from Western as well as Eastern Europe, attended CERM '96. This conference on reference materials was held in Liptovský Ján in Slovakia, under the coordination of the Slovak Institute of Metrology and EURACHEM-Sk. The aim of the conference was to exchange information among producers and users of reference materials, for the sake of improving analytical measurement quality.

The programme consisted of plenary lectures and a poster session. As well as the problems connected with reference materials, some aspects of accreditation, proficiency testing and international standards were also discussed. The poster session focused on information concerning newly prepared reference materials, uncertainty evaluation and traceability schemes.

An intensive exchange of information between participants took place. Many initiatives were taken for future

cooperation in the field of reference material certification.

It was decided that CERM will be periodically repeated in different countries of central Europe. As a result, a further conference will be held in The Czech Republic (Prague) in 1999.

For further information please contact
Dr. Viliam Pätoprsty
Slovak lnstitute of Metrology

Dr. Viliam Pätoprsty
EURACHEM Slovakia

Eurachem News

EURACHEM Finland

EURACHEM-Finland Discuss Benchmarking

EURACHEM Finland held its traditional autumn seminar in Helsinki on 11 November 1996. Almost 50 members gathered together to hear the latest information about benchmarking and its application to analytical chemical activities and laboratories.

One of the lectures, given by Ms. Ellen Wolf (Forensic Science Laboratory, The Netherlands), described a case study where benchmarking was applied to drug research. This very recent study had been carried out by some of the leading EU forensic laboratories.

Prof. Veikko Komppa EURACHEM Finland

EURACHEM / EUROMET Interface Group

The 3rd Contact Persons' Meeting was held in September 1996 in Lisbon. Many topics discussed were also reported to EURACHEM members at the CITAC / EURACHEM Joint Workshop, held in Noordwijkerhout *(Page 6-7).*

The 2nd CCQM, ISO/REMCO and ISO/TC 158 meetings were reported by respective subject group members.

Further information about the latest EURACHEM Amount of Substance projects can be found on the World Wide Web at: http://www.dfm.dtu.dk/euromet/amos.htm

Further details about the meeting are available from Prof. Veikko Komppa, VTT .

LATER: Summary details regarding the latest EURACHEM AoS Projects

EURACHEM/CITAC R&D/Non-Routine Analysis Working Group

Steady Progress Towards a Draft Guide

The EURACHEM/CITAC R&D/Non-Routine Analysis Working Group last met during the EURACHEM meetings in Prague in May 1996. The normal membership was boosted by a number of observers, who contributed enthusiastically to the debate and ensured a lively and constructive discussion. Before the meeting a draft of the guidance notes had been circulated, containing material covering probably 80% of the areas where guidance was thought to be needed. Good progress was made in clarifying the requirements in some of the remaining areas.

Since that meeting, slow but steady progress has been made over the course of the summer. A meeting has been arranged for Frankfurt in late Autumn, where it is anticipated that the working group will be able to discuss a largely complete draft.

However, the debate over some of the definitions still continues and there is no doubt that some issues are proving to be more of a challenge than originally envisaged.

No doubt there will still be further discussions before the draft is considered to be up to a standard fit for publication. It is still too early to think much about a publication date for the guide. Late next year is seen as a realistic target.

For further information on this work, please contact:
Mr David Holcombe
E/C R&D/NRA WG Secretariat
Laboratory of the Govt. Chemist

Mr David Holcombe
Secretary
EURACHEM/CITAC R&D/Non-Routine Analysis Working Group.

EURACHEM Switzerland

EURACHEM-CH Takes QA in Analytical R&D to Task

A workshop, entitled *Quality Assurance in Analytical Research and Development* (R&D), was held in Zurich in June this year. The aim of the workshop was to inform participants about standards and guidelines aimed at quality assurance in analytical R&D.

Quality elements important to analytical R&D work, such as planning, sampling, validation and measurement uncertainty were highlighted. Almost 50 delegates attended, indicating that QA in R&D is important and that most quality elements in standards are applicable to R&D, if properly adapted. Many of these quality elements were shown to be important. However, the existence of different but partly overlapping standards, with similar quality elements can lead to confusion.

Dr Peter Radvila
EURACHEM-CH

Eurachem News

Cyprus

Towards the Establishment of EURACHEM-Cyprus

At the moment, Cyprus (under the auspices of the Pancyprian Union of Chemists (PUC)) is an observer member of EURACHEM.

The PUC continues to disseminate information on various issues regarding testing and accreditation of laboratories. The quarterly journal *Chemical News* provides a useful tool for this purpose. A group of about 15 people are actively involved in a Network for the Communication and Dissemination of Information in the Field of Testing. This is coordinated by the Cyprus Organisation for Standards and Control of Quality (CYS).

On October 17, a oneday seminar on the accreditation of laboratories was jointly organised by CYS and PUC. Up to 100 people from both public and private sectors attended.

Contributions made by 13 scientists enlightened a series of issues, mainly in the field of analytica1 laboratories. Topics included:

- Preparation of the quality manual for laboratories
- Uncertainty of measurement
- Reference materials
- New trends in the accreditation of laboratories (EN 45000 series, ISO/IEC Guide 25).
- GLP

Almost 100 copies of Newsletter No 10 have been distributed to people who have shown interest in EURACHEM. Therefore, the basis of a Nationa1 EURACHEM organisation already exists. Further developments are expected in January 1997.

Dr Kyriacos Tsmillis
Pancyprian Union of Chemists

Eurachem News

AOAC on the Internet

AOAC has established a homepage on the World-wide Web. The address is **http://www.aoac.org**.

AOAC is an observer member of EURACHEM. It has active liasons with EURACHEM, with information flowing both ways. At the moment, AOAC is actively participating in the EURACHEM Method Validation Study Group.

AOAC has a wide range of publications, services and courses, that are available to all. Contact AOAC International for details.

Ms Margreet Lauwaars
AOAC International

Eurachem News

A New EAL / EURACHEM / EUROLAB Working Group

Proficiency Testing for use in Accreditation Procedures

EURACHEM, EAL and EUROLAB have jointly formed two new working groups, one of which concentrates on proficiency testing (PT).

This Working Group has the following terms of reference:

1. To identify and promote the use of cost-effective types of PT in accreditation procedures.
2. To prepare a common position paper on the cost-effective use of PT.
3. To review the state of practice in PT for use in accreditation procedures.
4. To develop qualifying criteria for PT schemes related to their intended use.
5. To interact with the relevant DGs of the European Commission.
6. To cooperate with organisations running national or international PT schemes and to formulate proposals for participation by EAL, EUROLAB and EURACHEM members.
7. To study the needs and feasibility for EAL-EUROLAB-EURACHEM initiated PT schemes and to formulate proposals.
8. To study the correlation between accreditation of a laboratory and its results in a PT scheme.
9. To initiate further appropriate actions.
10. To revise document EAL G-6.

The group is therefore concerned with promoting the use of appropriate PT schemes as an aid to accreditation, as well as encouraging, and providing a medium for, European cooperation in PT.

A survey on the type of PT used in laboratory accreditation has been completed. The survey indicated a broad range of practices and needs of laboratories, PT organisers and accreditation bodies. The survey also indicated that there is a significant willingness to participate and organise international PT schemes. However, many laboratories are not aware of good PT schemes run in other countries. The group will therefore address this by the establishment of a detailed comprehensive international database of PT schemes.

The group is currently developing the criteria for a PT scheme, which should lead to the establishment of a Europe-wide approach to the recognition of PT schemes by accreditation bodies.

For further information, please contact:

Mr Nick Boley
LGC, Queens Road, TEDDINGTON, Middesex, TW11 0LY, UK
Tel +44 181 943 7311
Fax + 44 181 943 2767

Email npb@lgc.co.uk
or Prof Dr Paul de Bièvre, IRMM

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Currently Eurachem Events

- OnLine Discussion Fomrum (ODF) on topics concerning Analytical Quality Assurance (short indtroduction about ODF) *Updated on 19.12.1997*

Forthcoming Workshop & Conference (3 entry)

Forthcoming Event

1. **March 16, 1997, PITTCON '97**
2. **June 3 - 5th, 1997, Netherlands, 11th International LIMS Conference**
3. **September. 29 - 30, 1997, Berlin, Eurachem Workshop on Measurement Uncertainty**

Stop Press

CITAC Activities at PITTCON '97

½-day symposium entitled "Chemical Measurements: Worldwide Interlaboratory comparisons": March 16, 1997

For further information please contact:
The CITAC Secretariat, LGC, Queens Road, TEDDINTON, Middlesex, TW11 0LY, UK

Eurachem Workshop on Measurement Uncertainty

29 - 30 September, 1997, Berlin

Preparations Continue Towards the Next Uncertainty Workshop

Over 750 copies have been sold of the first edition of the EURACHEM Guide "Quantifying Uncertainty in Analytical Measurement", which was published in May 1995. The Working Group have received a large number of favourable comments on the Guide, together with numerous suggestions for additions or clarifications that could be included in a future version. In addition many national EURACHEM organisations have held seminars, and members of the Working Group have given lectures at a number of them.

Although a great deal of work still needs to be done, a significant number of laboratories have at least made a start on the evaluation of the uncertainty on their results.

Since publication of the Guide, the Working Group has been looking at topics that were either not covered or not covered adequately in the first edition. A very important issue is the relationship between method validation and uncertainty evaluation. Much of the data required to evaluate uncertainty could be obtained during the collaborative study of a method. If this data were available then it would reduce the work that each laboratory needs to do itself. The working group is preparing recommendations for changes to existing validation protocols so that the necessary data is provided.

Another topic is how the evaluation of uncertainty fits in with the concept of detection and determination limit. This in turn is related to the problem of identification, particularly when measuring trace levels for control purposes. The working group has been looking at whether the concept of uncertainty can be usefully applied to identification. An approach based on the probability of evidence, as used in forensic analysis, looks to be promising.

These and other topics will be discussed at the forthcoming EURACHEM Workshop on the Evaluation of Measurement Uncertainty in Chemical Analysis. It was always planned that there would be a second EURACHEM

Workshop about two years after the publication of the Guide. This would discuss experience in its use and modifications and additions that might be included in a second edition. The workshop will be held in Berlin at BAM on 29-30 September 1997. A training course will also be held on the afternoon of 28 September for those unfamiliar with the topic.

Anyone interested in attending or presenting a poster or paper should complete and return the slip on the enclosed insert.

Mr Alex Williams
Chair, EURACHEM Measurement Uncertainty Working Group
For further information about the workshop, Contact by Email:
Werner.Haesselbarth@mailgw3.bam-berlin.de

Eurachem Forthcoming Event

11th International LIMS Conference

June 3-5th 1997, Netherlands Congress Centre, The Hague

Following the very successful 9th Conference in Bonn, EURACHEM has agreed to provide support again, this time to the 11th LIMS Conference, which promises to be the biggest yet in Europe.

The three-day programme for LIMS-97 features formal lectures, poster displays, breakout sessions, and vendor workshops. As always, there will also be a comprehensive computing exhibition featuring the market leaders in LIMS and scientific computing.

The theme for the conference is the integration of data, information and computer systems, and features such topics as:

- LIMS for new or prospective users
- LIMS- Total Management Tool 1 - Good case studies on implementation
- LIMS- Total Management Tool 2 - Cost/benefits of a LIMS
- LIMS- Quality Management Tool - QA, validation, regulatory compliance
- LIMS and the multi-media approach
- LIMS and the paperless laboratory - electronic signatures
- The lab of the Future - the lab computing environment beyond 2000
- Integration - LIMS, the automated laboratory and production control

For more information on the 11th International LIMS Conference,contact:

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LIMS 97, 45 Hilltop Avenue Hullbridge,   HOCKLEY, Essex, SS5 6BL,UK
Tel:    +44 1702 231268,        Fax:    +44  1702 230580
E-mail  101320.1671@compuserve.com
Conference updates appear on the Elsevier LIMS website:

http://www.elsevier.nl:80/section/chemical/laim/limsconf.html
or
http://www.lims97
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Mr Alex Williams
on behalf of the organising committee for LIMS '97.

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The EURACHEM Report (4 reports)

Eurachem Reports

1. Workshop Report: Traceability of "Amount of Substance" Measurements
2. Report from EURACHEM Education and Training Working Group
3. IMEP6 Soon to be Evaluated
4. VIEWPOINT: The use of expiry dates for Chemicals & Reagents

Workshop Report

EMERGING FROM THE FOG

Traceability of "Amount of Substance" Measurements

A EURACHEM/CITAC Workshop held in Noordwijkerhout, The Netherlands, September 4-6, 1996

EURCHEM held its first workshop on traceability in 1992. A great deal of progress has taken place since that date, muc it within international networking groups such as EURACHEM, CITAC and CCQM. We cannot claim to have even completed the design, let alone built an international chemical measurement system. However, we have in come circles least, an emerging consensus about the key issues, a skeletal framework and some of the building blocks.

the workshop was organised on behalf of CITAC and EURACHEM by the Laboratory of the Government Chemist. A f report of the proceedings has been submitted for publication.

The aims of the workshop were:

- To promote mutual understanding between delegates
- To review progress on the realization of traceability of chemical measurements
- To further clarify underpinning concepts and terminology leading to the development of a comprehensive model the traceability of chemical measurements
- To provide guidance on the tasks we need to undertake to make the traceability of chemical measurements a reali

As well as being alongside the ILAC meeting, scheduled for the following week, the meeting was designed to engineer cooperation between the laboratory and accreditation communities.

The workshop was a great success with delegates from 23 countries and many organisations. Delegates came from man backgrounds including industry, government laboratories, metrology institutes, academe and accreditation bodies.

Workshop Programme

Workshop activities included scene setting presentations covering:

Traceability to SI	P De Bièvre (IRMM)
CCQM: Providing a Firm Foundation	R Kaarls (NMi)
Uncertainty: A Key to Traceability	W Wegscheider (UMML)
Bridging the Cultural Gap	B King (LGC)
What are Primary Methods?	W Richter (PTB)
The Role of Reference Materials	W Reed (NIST)
Moving from Official to Traceable Methods	M Walsh (SLI)

Traceable Measurements at the Working Level	A Squirrell (NATA)

The presentations provoked some lively discussion and pumped primed deliberations.These overspilled into Syndicate ' Group discusions which looked at the issues in more detail. Topics under discussion were

Task 1 "What does traceability to the mole really mean?"

- The equivalence of national measurement standards
- Definitions and terminology
- Elemental and organic analysis

Task 2 "How can traceability be realised?"

- The 'top' of the traceability chain
- Traceability at the working level
- The role of reference materials
- Method dependent analysis

Syndicate groups reported their conclusions at plenary sessions and the workshop ended with a session that brought all statements together into a set of recommendations and conclusions. Not surprisingly there were some areas of agreemer and some areas where confusion and disagreement still reign.

Areas of Agreement

It was pleasing to see the progress that has been made in recent years and to observe that there is a high level of agreem on the following issues:

1. Traceability is a useful concept that can be applied to chemical measurement
2. Traceability can be claimed to either SI or to references such as standard methods
3. Measurement uncertainty is a key concept of traceability and provides a quantitative measure of the quality of measurement data
4. Further work is required to develop the metrology of chemical measurements, and demonstrator projects, which illustrate the actual benefits are urgently required
5. CCQM provides the means for establishing a high level international metrology system for chemistry
6. CITAC and regional networks such as EURACHEM were seen as the keys to providing the second level of metrc support
7. Most attention needs to be focused on the major problem areas and these include sampling and sample preparation/separation
8. Reference materials provide a useful aid to traceability by facilitating both calibration and validation processes
9. A small number of well chosen primary or reference methods and reference materials can be expected to provide firm basis for traceability to SI and these references can be expected to support working level measurements

Lost in the Fog

Issues where confusion and disagreement still exist include:

1. What constitutes primary methods and primary reference materials
2. The applicability of the metrological model employed for physical measurements such as mass, length and time. chemical measurement inherently more complex than physical measurement?
3. The value of the SI unit the mole and how to encourage analytical chemists to use their quantity and unit
4. Where does traceability start and end? For example, does it include sampling?
5. How can all the pieces of the jigsaw be fitted together. Is the "virtual metrology laboratory" the way forward?
6. How can measurement uncertainty be best communicated to the customer without undermining confidence in analytical chemistry?

Conclusions

It was clear that a good level of progress was being made on a number of issues and by a number of groups. The Works

achieved its aims and provided networking groups such as EURACHEM with valuable material to guide their future wo programmes.

Dr Bernard King, LGC, UNITED KINGDOM

Abbreviations

CITAC
Cooperation on International Traceability in Analytical Chemistry
CCQM
Comité Consultatif pour la Quantité de Matière

Reference

1. B King, *submitted to Accreditation Quality Assurance.*

Eurachem Reports

EURACHEM Education and Training Working Group

Active Feedback Sought for the Glossary of Analytical Terms

Analytical data play a vital part in our daily lives, with increasing influence on both economy and ecology. The harmonisation of the European market - including the Eastern European countries - and the opening of internatio borders for trade and communication have led to serious problems with terminology in analytical chemistry. We identify the three main reasons which have caused this situation. These can be classified as "linguistics", "semant and "acceptance".

Frequent translations of a term through a chain of languages, and the use of terms by non-native speakers, may le a misuse of terms followed by grave misunderstandings. In addition, the coexistence of different meanings of ter due to their independent definition by national and international bodies or authorities, together with recommenda given by international organisations like IUPAC, leads to problems of semantics and confusion resulting in a dec of acceptance.

A STRATEGY ON TERMINOLOGY

During the last five years, the EURACHEM Education & Training Working Group (E&T WG) has analysed this situation, and has developed a strategy to deal with it. The first, and most important, step of this concept is to pro a forum which initiates and enables international discussions to take place among the experts in the field. The cat for these discussions will be a dictionary-like "glossary of terms" which will be published as a series in *Accredita and Quality Assurance*. Each term of the glossary is provided with a definition (taken from the highest internatio level, if possible ISO) followed by a scientific description of the meaning of the definition and one or more exam which explain its practical use. In addition, translations of the term into other European languages will be given. structure will facilitate translation of the glossary into other languages, and errors will be minimised if not exclud The translation will be performed by the E & T WG-members, being experts in the field and native speakers of th respective language. Finally it will be published in a suitable national journal.

Active feedback will be sought at both the national and international levels, to enable a dynamic development of glossary on the highest possible scientific and linguistic levels. This might also include the deletion of existing w and the creation of new words if, in the latter case, the scientific definition and meaning has no linguistic equival a given language. Let's take as an example the term *traceability* which by definition describes a way to achieve q (accuracy, comparability) in chemical measurements. The equivalent in German would be *Rückführbarkeit* but in respective DIN-norm the term *Rückverfolgbarkeit* is used, the linguistic meaning of which is "follow the way (tra back". Consequently, the term *Rückverfolgbarkeit* is part of providing assurance of quality and not of creating qu Unfortunately, there is no English word for *Rückverfolgbarkeit*. There are two ways of solving this problem: one create a new English word and the other is to introduce the German word into the English language.

We are willing to "grasp the nettle" and open the debate on this issue by proposing the term *trackability* to cover

concept.

DISCUSSION FORUM

It is proposed that the EURACHEM Education and Training Working Group should be the catalyst which will promote a wider debate of the issues raised by this glossary of terms. All analytical scientists are urged to contrib to the debate and work towards a consensus on the usage of the key terms covered by the glossary.

This debate can be carried forward by addressing your comments to:

Prof Dr Helmut Günzler, Managing Editor, Accreditation and Quality Assurance, Bismarckstraße 4, D-69469 WEINHEIM, GERMANY, for consideration by the Education and Training Working Group.

*Alternatively, comments can be sent **by Email only** to:*

Dr John Fleming, Laboratory of the Government Chemist, Email: jwf@lgc.co.uk

Dr John Fleming, LGC, UNITED KINGDOM
Mr Heiner Albus, Philipps-Universität Marburg, GERMANY Prof Dr Bernd Neidhart, Philipps-Universität Marburg, GERMANY Prof Dr Wolfhard Wegscheider, University of Mining & Metallurgy, AUSTRIA

Eurachem Reports

IMEP6 Soon to be Evaluated

The International Measurement Evaluation Programme (IMEP) has now completed its 6th measurement round, (IMEP6) *Trace Elements in Water.* An overview of results was recently presented at a EURACHEM/CITAC workshop1 which attracted considerable interest from the delegates. IMEP is coordinated from the Institute for Reference Materials and Measurements (IRMM), and is run under the auspices of IUPAC, EURACHEM, EURO and CITAC. The programme aims to be a tool for field laboratories to compare their results to SItraceable values is also offered to regulating and accrediting bodies. Samples with undisclosed values are sent to interested laboratories. They return their measurement result with a statement of uncertainty, claiming to embrace the "true value". The SItraceable values are established by Isotope Dilution Mass Spectrometry (IDMS) which has the pote to be a primary method of measurement.2 For IMEP6, this was done in collaboration with NIST (USA) and University of Regensburg (Germany). Uncertainty ranges are evaluated according to ISOBIPM and EURACHEM guidelines.3,4 A strategy of IMEP is that the SItraceable values, which will serve as references, should be obtaine means of well understood measurement processes, rather than from averaging a number of values from different analytical techniques. IMEP rounds are run in cases where the objective evaluation of measurement results is important.

In IMEP6, fourteen trace elements (Ag, B, Ba, Cd, Cu, Fe, Li, Mo, Ni, Pb, Rb, Sr, Tl and Zn) were under investig in a synthetic and natural water material.5 Some 200 laboratories in 30 countries participated in this IMEP round. participants were regionally coordinated from Chile. The first results from the certification work and evaluation c participants' results will appear in 19976,7.

IMEP rounds planned in near future are shown in the table (bottom right). IMEP7, *Trace elements in Human Seru* being planned in close cooperation with organisers of external quality assurance programmes in the Nordic count There will, however, be room for approximately 150 international participants.

Laboratories interested in this or in any other future round, or simply in more information, please contact:

Mrs. Lutgart Van Nevel
Tel: +32 (0)14 571 702, Fax: +32 (0) 584 273; 14 591 978

Dr. Philip Taylor
Tel: +32 (0)14 571 615, Fax: +32 (0)14 584 273; 591 978
IRMM, B2440 GEEL, BELGIUM

Dr Philip Taylor, Prof Dr Paul De Bièvre, Mrs Lutgart Van Nevel, Dr Ulf Örnemark
IRMM, Belgium

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3. *'Guide to the Expression of Uncertainty in Measurement', International Organisation for Standardisation I ISBN9267101889, Geneva, Switzerland, 1993.*
4. *'Quantifying Uncertainty in Analytical Measurement', EURACHEM, ISBN 0948926082, 1995.*
5. *'The International Measurement Evaluation Programme (IMEP), IMEP6, Trace Elements in Water, Report the Participants', Report GE/RSIM/25/1996, IRMM, September 1996.*
6. *I. Papadakis, P. Taylor and P. De Bievre, 'SI-Traceable Values for Cadmium Concentrations in the Water Samples of IMEP6', accepted for publication in Fresenius J. Anal. Chem.*
7. *U. Ornemark, P. Taylor and P. De Bievre, 'Certification of Rubidium in Water Material for the Internationa Measurement Evaluation Programme (IMEP) using Isotope Dilution Inductively Coupled Plasma Mass Spectrometry', submitted for publication in J. Anal. At. Spectrom.*
8. *A. Lamberty, L. Van Nevel, J.R. Moody and P. De Bievre, Accred. Qual. Assur., 1996, 1, 71.*

IMEP Rounds Planned in the Near Future

		Elements of Interest	
IMEP-7	Trace Elements in Serum	Ca, Cl, Fe, K, Li, Mg, Na, Se, Zn	1997-98
IMEP-8	n(13C)/n(12C) in CO2		1997-99
IMEP-9	Trace Elements in Water	Same as in IMEP-6 and similar to IMEP-38	1997-98

EURACHEM / EUROMET Interface Group

EUROMET Amount of Substance Projects

Ref	Subject	Type	Status	Proposer/ Co-ordinator	Partners (Institutions)	Participati countrie
300	*Intercomparison of Definitive Method for pH Measurement.*	Comparison	Completed	Mrs Petra Spitzer		DE, DK, HU PL
313	*Realising Comparability of Primary Gas Standard Mixtures. (PSM)*	Co-operation	Agreed	Mr Anton Alink	NPL, Nmi	GB, NL
316	*Realising raceability by Tn(13C)/n(12C) Measurements in CO2 (IDMS)*	Co-operation	Agreed	Prof Dr G Dube	IRMM, PTB	CE, DE
332	*Determination of Trace Elements in Water*	Traceability	Agreed	TBA (Contact Prof Dr Paul De Bièvre)	IRMM, PTB	CE, DE
333	*Determination of Iron in Milk Powder*	Traceability	Agreed	Dr P Taylor	IRMM, LNE, PTB, VTT	CE, DE, FI,
366	*Documenting Water Purity by Electrolytic*	Comparison	Agreed	Hans D Jensen	DFM, Nmi, NPL, PTB, OMH, BNM, OFMET,	CH, DE, DK FR, GB, HU

	Conductivity				NIST	NL, US
370	*Intercomparison of Primary Standard Measurement Devices for pH*	Comparison	Agreed	Mrs Petra Spitzer	Merck, KGaA, PTB, Radiometer A/S, U. of Newcastle, OMH, U. of Milan, GUM	DE, DK, GB HU, IT, PL
381	*Comparison of Electrolytic Conductivity measurements at 0.01, 0.1 and 1.0 S/m*	Comparison	Agreed	Hans D Jensen	BNM, DFM, Nmi, NPL, OMH, PTB, SMU, VTT	DE, DK, FI, GB, HU, NL

Eurachem Reports

VIEWPOINT !

The use of expiry dates for Chemicals & Reagents

OECD GLP guidelines state that reagents should be labelled, as appropriate, indicating source, identity, concentra and stability information, the preparation date, earliest expiration date and specific storage instructions.

EURACHEM's chemical laboratories guide says that reagents prepared in the laboratory should be labelled to ide substance, strength, solvent, any special precautions or hazards, restrictions of use and date of preparation and/or expiry. Similar guidance is given in the CITAC Guide.

Altogether these documents, with EN 45001 and GLP, only recommend the use of expiry dates of a reagent on th label, without giving specific guidance.

Not surprisingly, the most common problem a joint EUROLAB / EURACHEM-NL Working Group (WG) encountered was the GLP requirement to have an expiry date for every reagent used. The WG recommended: "*Th most practical solution is to develop a policy for arriving at sensible expiry dates for every chemical used. To avo unnecessary retesting of expired chemicals, one should consider the chemical stability of the compound under sto conditions and the turnover time in relation to the amount purchased.*". 1 This is a promising proposal, since each experienced analyst could lay down a sensible expiry date for the reagent in question.

However, the WG still considers it necessary that even chemicals like NaCl should have an expiry date.

To solve the problem, I propose the following:

1. To avoid unnecessary measures and expenditures, the listing of an expiry date should not be mandatory.
2. Depending on the purpose of the test and on the chemicalphysical nature of the reagent / chemical, the anal should make this decision based on professional judgement.

Dr Werner Steck
BASF-AG, LUDWIGSHAFEN

Any comments on this article should be addressed to Dr Werner Steck or the EURACHEM Secretariat

References

1. *EUROLAB TCQA WG 2 and EURACHEM Netherlands WG 3; Final draft "Quality Assurance according t 45001 and OECD GLP A guide to simultaneous implementation 1996", Section 2.1.*

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