

## **QUASIMEME Interlaboratory Study on the Analysis of Chlorinated Paraffins in Environmental Matrices**

Chlorinated paraffins (CPs), also known as Polychlorinated alkanes (PCAs), are complex mixtures of chlorinated n-alkanes with carbon chain lengths of 10 to 30 and a chlorination degree between 30% and 70% by mass. Characterization of CPs is performed by their alkane chain lengths. They are divided in three groups: short-chain ( $C_{10-13}$ ) (SCCP), medium-chain ( $C_{14-17}$ ) (MCCP) and long chain ( $C_{18-32}$ ) (LCCP) CPs.

CPs are used in several industrial applications like flame-retardants in the rubber industry, as high temperature lubricants and cutting fluids in the metalworking industry and as additives in liquids, paints and textiles. The analysis of CPs is highly complicated. There are tens of thousands of congeners which make separation by GC and even by GCxGC hardly possible. Alternative methods are scarce and may suffer from false positive data. The data reported on CPs to now, deduce very high uncertainties (100% or more).

Chlorinated paraffins are currently of utmost importance to the environmental analyst. They are being produced in high volumes, are under discussion in the United Nations Environmental Programme (UNEP) to ascertain whether or not they will be defined as persistent organic pollutant (POP). CPs are a mandatory determinant in the European Water Framework Directive. This said however, the analysis is far from validation, as the paraffins (CPs) are extremely complex. In March this year, QUASIMEME organised a workshop on the analysis of chlorinated paraffines in Ostend, Belgium. A number of critical issues in the analysis of these CPs were discussed. It was generally agreed that there was a clear need for an interlaboratory study (accompanied with expert comments) to be designed in a step-wise way with meetings being organised for participants in between each step. Quasimeme welcomes your participation in such a study.

### **Design of the Study**

The study will consist of four steps. Each step will be at the participants pace. If corrective actions or a repeat of one step is required this will be accommodated.

## **Coordination**

This study will be coordinated by Ms. Ike van der Veen [ike.van.der.veen@ivm.vu.nl](mailto:ike.van.der.veen@ivm.vu.nl) and Prof.dr. Jacob de Boer, IVM, VU University, Amsterdam, The Netherlands. Both coordinators are highly experienced in the organisation of large, international interlaboratory studies.

## **Participation Fee**

The fee for participation in this study will be 880 Euro per round. In case a pre-payment is made for all four rounds, the fee will be 3200 Euro in total for all four rounds. The samples will be dispatched after receipt of the fee.

## **Registration**

Participants should register before 31 December 2010. To register, please send an email to the Quasimeme office, mentioning confirmation CP ILS participation with your full postal address, tel. no. and email. Suggestions with regard to the design of the study and the type of test materials are also welcome and can be added to your email. Upon receipt of your email you will receive a confirmation of your participation and an invoice for the first round (or for all 4 rounds at reduced fee, if so indicated).

## **QUASIMEME and co-organisers**

**QUASIMEME** (Quality Assurance of Information in Marine Environmental Monitoring in Europe) operates a series of Proficiency Testing Studies for institutes making chemical measurements worldwide. As part of the improvement programme, QUASIMEME co-operates with centres of excellence to provide workshops for discussion, and “hands on” experience to compliment the development programmes in the Laboratory Performance Studies.

**The Institute for Environmental Studies (IVM) of the VU University** in Amsterdam, The Netherlands, acts as a centre of excellence for QUASIMEME. It contributes to biological test material testing for proficiency tests on organic contaminants. In addition, scientific advice is given to the annual QUASIMEME programmes through the Scientific Assessment Group. IVM assists in organising workshops on specific analytical topics and in the organisation of specific interlaboratory studies (learning exercises). IVM combines knowledge on analytical chemistry and toxicology to address a broad range of environmental issues, with a focus on contaminants. More information can be found at [www.vu.nl/ivm](http://www.vu.nl/ivm).