



WEPAL-QUASIMEME/NORMAN Interlaboratory Study on the Analysis of Microplastics in Environmental Matrices

INVITATION TO

ROUND 2024 - Development Exercise DE 17

open to all laboratories with an interest in microplastics analysis worldwide

Introduction

Microplastic' is a catch-all phrase for plastic particles spanning six orders of magnitude in particle size (0.1–5000 μm) and a gigantic variety of chemical compositions: (co)polymers, chemical additives, residual monomers, fillers, catalysts, non-intentionally added substances (NIAS)', etc. The diversity of this analyte class has resulted in a range of different analytical methodologies being applied thus far. One of the challenges analytical scientists face with microplastics analysis is how to check and demonstrate analytical proficiency. The interlaboratory study (ILS) initiative for microplastics analysis described in this flyer has been designed to answer the need of laboratories working on analytical quality control of their microplastics analyses. This exercise follows previous development exercises carried out in collaboration with e.g. EUROqCHARM, among others.

ILS Study Design

Laboratories use their in-house methods, as currently no standard or harmonized methods exist. Because this ILS focuses on a new and difficult analysis, it is called a 'Development Exercise' (DE). Previous studies have shown that the analysis of microplastics is relatively difficult. As a result, we decided to reduce the difficulty of the sample type in the upcoming round. Therefore, in the 2024 round, 3 water samples and 3 sand samples will be made available. Microplastics between 0.1 and 5000 μm will be added to 4 samples. In this exercise, we will focus on numbers of particles and not mass of plastic particles.

Following the publication of the final report, the results will be fed back and discussed with you in a webinar.

How to participate in the upcoming 2024 round of ILS

All analytical methods for counting particles are welcome.

Participants should register on or before **1 June 2024**. To register, please visit the WEPAL-QUASIMEME webshop <https://participants.wepal.nl/webshop/index.php>. Select: How to Participate - Special Exercises - DE17 microplastics and finish the subscription by entering your address details.

Upon receipt of your application form you will receive a confirmation of your participation. Due to the limitations of the test materials, there will be a maximum of 90 participants. The registration will follow the first come – first served rule.

Participation Fee

The participation fee is limited to €795.

If You wish to participate only in the analysis of water samples or in the analysis of sediment samples please sent an email to wepalquasimeme@wur.nl

The participation fee will then be €595.

Tentative timeline

<i>1 June 2024</i>	<i>Deadline registration (maximum 90 labs can participate)</i>
<i>1 July 2024</i>	<i>Dispatch of test materials</i>
<i>1 October 2024</i>	<i>Deadline for returning results</i>
<i>1 December 2024</i>	<i>Draft Report sent to participants</i>
<i>1 February 2025</i>	<i>Final Report</i>
<i>mid February 2025</i>	<i>Webinar to discuss the results</i>

ILS Initiators

This study is being coordinated by Dr. Ike van der Veen of the Dept. Amsterdam Institute for Life and Environment (A-LIFE) at the Vrije Universiteit (VU), Prof. Bert van Bavel of the Norwegian Research Institute for Water Research (NIVA,) and BSc. Steven Crum and Mrs. Ilona van den Berg of WEPAL-QUASIMEME Laboratory Performance Studies (Quality Assurance of Information in Marine Environmental Monitoring in Europe). The ILS initiative is supported and promoted by the NORMAN working group on nano-and micro scale particulate contaminants. QUASIMEME operates Proficiency Testing Studies for institutes making chemical measurements in the aquatic environment worldwide. As part of the improvement program, QUASIMEME co-operates with centers of excellence to provide workshops for discussion, and “hands-on” experience to complement the development programs in Laboratory Performance Studies.

Questions or feedback?

Please contact us by email at wepalquasimeme@wur.nl

Acknowledgement

We are very grateful to Chiron (producer of microplastic certified reference materials) for making spiking material for this development exercise available.

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