Results of the 5th InterCinD™

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INTRODUCTION

InterCIND PTs arises from the union of the Italian Intercalibration Dioxins Circuit (CIND), the Swedish Circuit InterCal, and is a B.U. of LabService Analytica Srl. As of February 2015, it is accredited to ISO/IEC 17043. The PT schemes of InterCIND are recognized all over the world as a referring point for Dioxins and POPs PTx, collecting every year more than 90 participant laboratories from EU and Extra EU Countries.
InterCIND provides samples of natural matrices; requires triplicate results from participants, and performs the statistical data evaluation according to ISO 13528/2015. Furthermore, PTs are run in conditions similar to the actual laboratory conditions, with **unknown** concentration, and **endogenic contamination (No spiking)**. InterCIND assesses laboratories performances (both accuracy and precision). The assigned value and the corresponding uncertainty for each measurand derive from the consensus of all reported results. Several statistical tests with non- parametric method are run to determine extremes and outliers. The InterCIND statistical method was tested for robustness to outliers and extremes and it provides results comparable to classical methods [1]
Comparison of results from PTs conducted on same matrix in different years confirmed the robustness of the InterCIND protocol including the statistical treatment and identification of consensus values. It included also the treatment of replicates result not deviating the assigned values and uncertainty determination. Replicates analyses provided additional insights to the laboratories.
Overall InterCIND allows laboratories to test their performances in conditions very similar to normal activity and provides a complete evaluation of performances using classical indices (z-scores) and allows the evaluation of the accuracy (bias and precision).

PECULIARITIES of InterCinD are:

Natural matrixes

(unknown concentration, endogenic contamination)
InterCinD provide to every Labs Environmental, Industrial and Food/Feed samples for POPs determination in particular: **Dioxins, Furans, PCBs, PBDEs, PAHs and HMs**

3 Replicates required

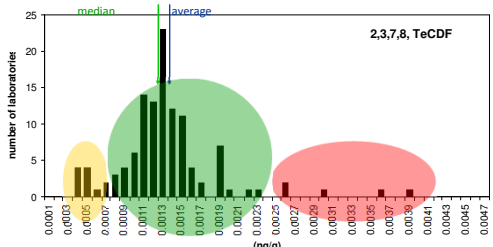
(accuracy& precision)

Statistical data treatment

INSPIRED by ISO 13528/2015 and IUPAC Guidelines (Determination of extremes and outliers with non-parametric method)

----------THE CONSENSUS VALUE

What is the most likely **TRUE** value? What are the **UGLY** data? What are the **BAD** data?



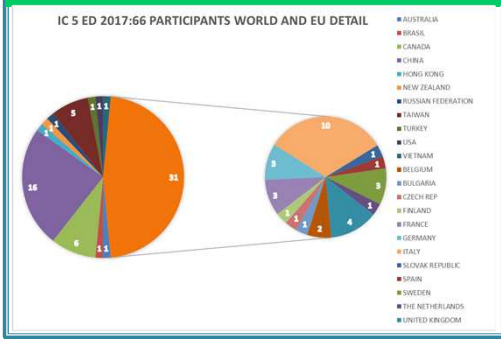

The Bad


The Good


The Ugly

InterCinD extremes and outliers are determined using non-parametric method. This has been tested also for InterCinD by a) the decrease of dispersion and uncertainty of accepted data; b) the normal distribution of accepted data for definition of consensus value. The non-parametric method reported was thus used in the InterCinD Reports to identify extremes and outliers on the basis of assigned values and statistics: in this way all problems related to low number of available data, were not limiting assessments of performances

InterCinD V (ed.2017) RESULTS



InterCinD 5 PT Scheme has been successful collecting 66 participant Labs sending back results.
The main interest during these 5 year (only the last 2 Accredited) is for SEDIMENT and ASH samples.
In these years we are glad to find a steady growing in participant interest for InterCinD PT Schemes (+18% every edition), thanks to our main features:
SAMPLES with ENDOGENIC contamination, 3 REPLICATES and detailed FINAL REPORT
Even the Summer Edition Scheme (2017SE) met a great interest and response

REFERENCES

[1] (see also: Libralato S., Raccanelli S., Van Bavel B. "COMPARING TWO METHODS FOR QUALITY CONTROL OF POPS DATA IN INTERCALIBRATION STUDIES", Organohalogen Compounds Vol. 73, 2174-2177 (2011)).

WELCOME TO InterCinD

Join InterCinD PT !
For info and Calendar the New website is on-line!
WWW.InterCinD.eu