



中国合格评定国家认可委员会

China National Accreditation Service for Conformity Assessment

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APLAC Testing Proficiency Testing Program

Pb and Cd in Rice

APLAC T074

1. Objective

Pb and Cd are toxic metallic elements that are known to exhibit the respiratory, digestive and nerve apparatus injurious properties. The food containing them will accumulate the toxins and thus may pose a risk to human health when eaten. Because of the threat to human health, various countries have enacted regulations on the maximum permitted contents of Pb and Cd in various food. The testing of these toxins is of great importance to international food trade and protecting human health. This PT program proposed here is to evaluate the performance of laboratories for quantitative testing Pb and Cd in rice.

2. Organization and responsibilities

This proficiency testing program will be organized China National Accreditation Service for Conformity Assessment (CNAS). CNAS is responsible for proposing this program for approval by the APLAC Proficiency Testing Committee, inviting participants, circulating the draft report and final report to participants and acting as a contact point between APLAC, participating accreditation bodies / participants and the Proficiency Testing Provider (PTP).

The accredited PTP, the Technology Center of Liaoning Entry-Exit Inspection and Quarantine Bureau (LNCIQ), is responsible for preparing, packaging and dispatching samples, performing homogeneity and stability checks, collecting test results from participating laboratories, conducting statistical analysis of data, handling participants' queries and issuing interim and final reports.

3. Selection of participants

Each accreditation body of APLAC members is invited to nominate up to a maximum of 4 laboratories from your economy to participate in this program. Each of others is invited to nominate up to a maximum of 2 laboratories to participate. Note that preference will be given to laboratories that are accredited for the proposed tests.

4. Samples

Two powder rice samples will be provided to each participating laboratory. These two samples will be at the different levels on Pb or Cd contents. The samples will be packaged in sealed bottles.

This program involved plant products, there may be some problems on the customs clearance in some countries. We ask accreditation bodies to communicate with local customs officials as soon as possible and inform us if any necessary work we should do.

5. Homogeneity testing and stability check

Sample homogeneity and stability were checked in accordance with the procedure described in ISO Guide 35:2006 (for check before the PT round) and ISO/IEC 13528:2005 (for check after the PT round). The samples were prepared and tested by LNCIQ.

6. Tests and Methodology

The participating laboratories will be requested to analyze Pb and/or Cd in the rice powder samples. For testing each metal, any testing methods, which could accurately quantify 0.1mg/kg for Pb content and 0.05mg/kg for Cd content, should be used. No reference material or blank sample will be provided. The test results should be reported in the Result Sheet by the set testing deadline.

7. Statistical Analysis of Results

The summary statistics, such as the assigned value and standard deviation for assessment, will be derived from the results reported by participating laboratories. And The performance of participants will be evaluated using individual z-scores calculated from logarithm of reported result for each sample, unless the method is not applicable. The criteria of z-score assessment are:

- | | | |
|-----|---------------|----------------|
| (a) | $ z \leq 2$ | Satisfactory |
| (b) | $2 < z < 3$ | Questionable |
| (c) | $ z \geq 3$ | Unsatisfactory |

Graphic shown of reported results and summary statistics would be employed to facilitate participants getting their performance smoothly.

8. Application fee

Free of charge.

9. Schedule for program

Feb-July, 2011 Advise APLAC members, EA, IAAC and other contacts for participating

By July 30, 2011 Accept nominated laboratories

By Sept 20, 2011 Dispatch samples to nominated laboratories

Oct. 20, 2011 Testing Deadline

By Nov. 15, 2011 Interim report

By Dec. 15, 2011 Draft final report

10. Contacts

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