



APMP-APAC Joint Proficiency Testing Programme  
(APAC T113)  
Benzoic Acid in Fish Sauce



**FINAL REPORT**

**APMP-APAC Joint Proficiency Testing Programme**  
**(APAC T113)**

**Benzoic Acid in Fish Sauce**

Organized by

Government Laboratory  
Government of the HKSAR  
Hong Kong, China

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## Summary

1. This APMP-APAC joint proficiency testing programme (APAC T113) was organized by the Government Laboratory of Hong Kong, China (GLHK) under the auspices of the Asia-Pacific Metrology Programme (APMP) - Asia Pacific Accreditation Cooperation (APAC) Joint Proficiency Testing Working Group (PTWG). The aims of the study were (i) to enable participating laboratories to demonstrate their capabilities on the measurement of the mass fractions of the benzoic acid at mg/kg levels in aqueous-based condiments (e.g. fish sauce); and (ii) to identify opportunities for further improvement.
2. A total of 41 laboratories from 19 economies enrolled in the PT programme and all of them, which were free to choose any techniques for measurement, returned the Result Proforma to GLHK within the scheduled timeline.
3. The reference value provided by GLHK were used as the assigned values for evaluating the performance of participants. The standard deviation for proficiency assessment [10.1] was derived from the Horwitz Equation [10.2]. The z-scores were used to show the performance of participants with respect to the assigned values of the analytes of interest.
4. The participants' z-scores on benzoic acid is summarized as follows:

<b>z-Score</b>	<b>Number of Participants (Percentage)</b>
$ z  \leq 2.0$	36 (87.8%)
$2.0 <  z  < 3.0$	1 (2.4%)
$ z  \geq 3.0$	4 (9.8%)
<b>Total:</b>	41 (100%)

5. To allow participants to check for any transcription errors unintentionally made by the proficiency test provider, an Interim Report of APAC T113 was issued in April 2022 prior to preparation of this Final Report that gives a comprehensive overview of participants' results and detailed discussions on methods of analysis used by participants.