

**CHEMICAL MARKERS IN
CHINESE MEDICINAL OIL**



**PROFICIENCY TESTING
SCHEME**

GLHK PT 21-05

FINAL REPORT SUMMARY

27 May 2022



Government Laboratory
Proficiency Testing Scheme (GLHK PT 21-05)
Chemical Markers in Chinese Medicinal Oil

Summary of Results

1. This proficiency testing (PT) scheme (GLHK PT 21-05) was organised by the Government Laboratory of the HKSAR Government (GLHK) with the support from the Hong Kong Council for Testing and Certification (HKCTC). The main objective of the PT scheme is to provide a platform to evaluate the testing capability of participating laboratories in analysing chemical markers in Chinese medicinal oil.
2. A total of 10 laboratories in Hong Kong enrolled in the PT scheme and all of them returned the analytical results to the organiser on or before the deadline for the result submission. Participants were requested to determine the mass fraction of five chemical markers in the Chinese medicinal oil.
3. The assigned values were derived from the robust analysis of participants' results. The standard deviations for proficiency assessment were derived from the robust standard deviations. Individual laboratory performance was expressed in terms of z-scores.
4. The z-scores of the participants are summarized as follows:

Chemical Marker	Number of Participants (Percentage)			Total Number of Participants
	$ z \leq 2.0$	$2.0 < z < 3.0$	$ z \geq 3.0$	
α -Pinene	9 (100%)	--	--	9
Eucalyptol	9 (90%)	1 (10%)	--	10
Camphor	9 (90%)	--	1 (10%)	10
Menthol	8 (80%)	--	2 (20%)	10
Methyl Salicylate	8 (80%)	2 (20%)	--	10