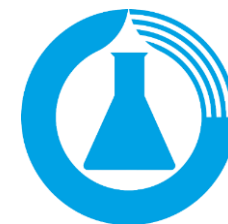




**环保报告**  
**Environmental**  
**Report**  
**2023**

**政 府 化 验 所**  
**Government Laboratory**



香港特别行政区政府  
The Government of the Hong Kong Special  
Administrative Region



# 目录 Table of Contents

报告摘要 Executive Summary.....	3
主要职责概述 Profile of Key Responsibility.....	4
组织结构 Organisation Chart.....	5
实验室地点 Laboratory Locations.....	6
环保政策 Environmental Policy.....	7
环境管理系统 Environmental Management System.....	10
碳管理 Carbon Management.....	13
节能绿建 Energy Saving and Green Buildings.....	14
资源耗用 Resource Consumption.....	15
废物减量 Waste Reduction.....	16
室内空气质素 Indoor Air Quality .....	17
环境管理改善措施 Initiatives on Environmental Improvement.....	18
展望 Way Forward.....	19
意见及查询 Feedback and Enquiries.....	20

# 报告摘要 Executive Summary

政府化验所提供广泛的分析、调查和咨询服务，为政府决策局及部门在法治、食品安全、公众卫生、环境保护和消费者权益等各方面的工作，提供支持。

由于政府化验所的核心服务涉及化学品的使用和不同仪器的操作，为履行维护环境的责任，我们在化学品处理、废物处置等方面，均制定妥善程序，防止污染。此外，为了配合政府节能减碳的环保政策，政府化验所积极推行节能减废的措施。

自 1998 年起，政府化验所根据 ISO 14001 标准建立了一套环境管理系统，以维持高水平的环境绩效，确保我们检测服务的可持续发展。

2023 年标志着政府化验所的 110 周年纪念，是一个重要的里程碑，本报告总结了化验所在这特别的一年里的环保表现，涵盖我们在环境管理方面所作出的努力。一如既往，我们会继续秉承精益求精的专业态度，探索机遇，务求提升日常运作和实验室设施，进一步提高我们的环境绩效。

政府化验师  
李伟安博士  
二零二四年八月

The Government Laboratory (GL) provides a wide range of analytical, investigatory and advisory services and support to enable government bureaux and departments to meet their responsibilities for law and order, food safety, public health, environmental protection, consumer protection and implementation of government policies.

As the GL's core services involve the use of chemicals and the operation of various types of instruments, we strive to fulfill our environmental obligations by establishing proper procedures for chemical handling and waste disposal to prevent pollution. Furthermore, in line with the Government's environmental policy of energy conservation and decarbonization, the GL put much effort into implementing energy saving and waste reduction measures.

Since 1998, the GL has established an environmental management system (EMS) in accordance with ISO 14001 standard to maintain a high standard of environmental performance for the sustainable development of our testing services.

The year 2023 marked the 110<sup>th</sup> anniversary of the GL, signifying a significant milestone. With our concerted efforts, this report summarises the GL's performance of environmental management in this special year. As always, we will continue to uphold our professionalism and seek opportunities to enhance our operation and laboratory facilities for further improvement of our environmental performance.

Dr. LEE Wai-on  
Government Chemist  
August 2024



# 主要职责概述 Profile of Key Responsibility

**政**府化验所由政府化验师领导，为政府决策局及部门提供广泛而公正及可靠的法证、分析和咨询服务。

为了保障公众健康及保护消费者，政府化验所恒常地为食物、药物、中药及商品等进行检测；同时，我们亦提供有关环境保护的检测及咨询服务，以支持香港特区的可持续发展。此外，政府化验所提供必要的法证服务，以支持香港特区的刑事司法制度。

截至 2023 年 12 月，政府化验所的员工编制共 517 人，由 27 个专职组别负责提供服务。政府化验所的组织结构及实验室地点详见后两页。

**T**he GL, headed by the Government Chemist, offers a comprehensive range of impartial and reliable forensic, analytical and advisory services to various government bureaux and departments.

Analytical and advisory services are provided for surveillance programmes on food, drugs, Chinese medicines and commodities, etc. to safeguard public health and protect consumers. We also provide testing and advisory services related to environmental protection to support the sustainable development of Hong Kong Special Administrative Region (HKSAR). In addition, the GL provides essential forensic science services to support the criminal justice system in HKSAR.

As at December 2023, the GL had a staff establishment of 517. Services were provided by 27 specialist Sections. The organisation chart and the locations of the GL's laboratories are shown on the next two pages.



# 组织结构 Organisation Chart



# 实验室地点 Laboratory Locations

九龙石硤尾  
公共卫生检测中心  
Public Health  
Laboratory Centre  
Shek Kip Mei, Kowloon



**Headquarters**

九龙何文田  
何文田政府合署  
Ho Man Tin Government Offices  
Ho Man Tin, Kowloon



新界沙田  
香港科学园  
Hong Kong Science Park  
Sha Tin, New Territories

九龙荔枝角  
荔枝角政府合署  
Lai Chi Kok  
Government Offices  
Lai Chi Kok, Kowloon



九龙何文田  
京士柏气象站  
King's Park Meteorological  
Station  
Ho Man Tin, Kowloon

香港薄扶林  
食品安全检测所  
Food Safety Laboratory  
Pok Fu Lam, Hong Kong



九龙长沙湾实验室  
Laboratory at Cheung Sha Wan, Kowloon



九龙九龙湾  
工务中央试验所大楼  
Public Works Central  
Laboratory Building  
Kowloon Bay, Kowloon

# 环保政策

## Environmental Policy

**政**府化验所承諾，致力执行有效的环保管理系统，作为日常工作的一个重要部分。我们的政策是确保不論在何时何地，政府化验所的工作程序和设施都能符合环保要求。具体而言，我们会遵从后两页所列的六大环保政策的原則：

The GL is committed to maintaining a sound environmental management system in its daily operation. It is our policy to ensure all operating processes and facilities of the GL complying with the environmental requirements at all times and in all places. Specifically, we adhere to the six principles of our environmental policy shown on the next two pages:



# 环保政策 Environmental Policy

## (a) 防止污染

政府化验所在提供服务的过程中，致力遏制释放污染物，并减轻其对环境的有害影响。

## (b) 保护资源

我们提倡绿色采购和管理，遵照“减少、重用、再造、及替代”原则，采取所有切实可行的措施节约能源，以及减少耗损净水、物料和自然资源。

## (c) 履行合规义务

我们确保运作过程完全符合相关的环保法例及其他适用要求。



## (a) Prevent Pollution

We strive to prevent the release of pollutants that the Laboratory may cause during service delivery, and to mitigate their detrimental effects to the environment.

## (b) Preserve Resources

We promote green procurement and management, and take all practicable measures to conserve energy, water, materials and natural resources by adopting the principle of “reduce, reuse, recycle and replace”.

## (c) Fulfil Compliance Obligations

We fulfil the obligations to comply with all relevant regulatory and other applicable requirements on environmental performance in our operation.



# 环保政策 Environmental Policy

## d) 加强沟通和意识

- 我们透过发布年度报告汇报我们的环境表现，以提高对公众的透明度；
- 我们定期向所有员工提供培训及发放指引，培养绿色文化和增强员工的环保意识。

## (e) 支持可持续发展

我们致力透过可持续方式提供优质的化验服务，并在追求科技进步时，竭力降低对环境的影响。

## (f) 追求持续改进

我们决意持续不断改进，全方位追求环境表现的提升。



## (d) Enhance Communication and Awareness

- We facilitate transparency to the public through annual reporting of our environmental performance;
- We foster green culture and staff awareness through providing regular training and guidelines to all staff.

## (e) Support Sustainable Development

We are committed to providing quality laboratory services in a sustainable manner with due consideration for minimising environmental impacts while achieving technology advancement.

## (f) Promote Continual Improvement

We are determined to seek continual improvement to enhance our environmental performance on all fronts.

# 环境管理系统 Environmental Management System

## 员工责任

**政**府化验所辖下的环境、安全及保安委员会负责制定及推行环保政策和指引，并监察我们的环保表现。委员会由一位首长级人员领导，成员包括政府化验师委派的人员及各职级员工代表，定期商讨环境管理的工作。

各组主管及部门主任秘书均获委派为「环境、安全及保安督察」，负责监督属下员工工作时遵守环保政策、指引及措施。

另外，分析及咨询事务部辖下的环境管理系统工作小组由环境经理领导及各组别的代表组成，负责协助环境经理，监察六个组别（即环境化学A组、环境化学B组、残留组、微量元素化验组、外判管理组及质量管理组）根据 ISO 14001 标准所推行的环境管理。此外，为准备扩展 ISO 14001 认证范围，环境管理系统工作小组亦会向其他组别提供支持。

## Staff Responsibility

The Laboratory Environment, Safety and Security Committee (LESSC) is responsible for formulating our environmental policy and guidelines, overseeing the implementation and monitoring our environmental performance. Chaired by a directorate-grade officer and comprised of officers appointed by the Government Chemist and staff representatives at different ranks, the LESSC meets regularly to discuss EMS-related matters.

Section Heads and the Departmental Secretary are designated to be the Environment, Safety and Security Inspectors, who are responsible for supervising their staff to work under the established environmental policy, guidelines and measures.

Moreover, the Environmental Management System Working Group (EMSWG) under the Analytical & Advisory Services Division, led by the Environmental Manager (EM) and comprised of sectional representatives, assists the EM in overseeing the implementation of the EMS in the Environmental Chemistry A (ECA) Section, Environmental Chemistry B (ECB) Section, Residues (RE) Section, Trace Elements (TE) Section, Outsourcing Management (OM) Section and Quality Management (QM) Section according to ISO 14001 standard. In addition, the EMSWG also provides support to other Sections to prepare for the extension of ISO 14001 certification.



# 环境管理系统 Environmental Management System



## 教育及培训

所有新聘用的员工都须参加环境管理入职培训，认识一般实验室安全措施及政府化验所的环境管理系统。此外，政府化验所亦定期举行紧急事故处理的培训及演习，当中包括溢出水银事件、气樽泄漏事件及抽风柜故障事件，预防环境污染。在 2023 年，我们共举办了 36 次环境突发事故演习。

另外，我们举办了一节 EMS 培训课，让同事们对化验所的环境管理系统和其根据 ISO 14001 标准制订的操作程序，以及政府的绿色政策，有较深入的认识。此外，我们还为负责环境管理系统内部审计的同事安排了一节审计培训课。

## Education and Training

Induction training on environmental management was given to all new recruits, introducing general laboratory safety practices and the GL's EMS. Furthermore, training and drills were organised regularly on the topics related to environmental emergencies, including spillage of mercury, gas leakage from gas cylinder and breakdown of fume cupboard, to prevent environmental pollution. In total, 36 drill sessions were conducted in 2023.

Besides, an EMS Introduction Training was arranged for colleagues with a view to enabling them to have a more in-depth understanding of the GL's EMS and its operating procedures according to ISO 14001 standard, as well as the Government's green policy. In addition, an Auditor Training was also arranged for colleagues who were responsible for EMS internal audit.



# 环境管理系统 Environmental Management System



## 环境管理系统监测及评审

为了评估政府化验所的环境绩效及表明我们履行合规的义务，化验所实施年度环境监测计划，为已获 ISO 14001 认证的组别所排放的污水与废气，检测其污染物含量。2023 年的环境监测计划已经顺利完成，当中所有监测数据均符合相关法例规定。

在 2023 年 12 月，化验所亦进行了该年度的环境管理系统内部审核。结果显示，化验所的环境管理系统运作良好，能有效地达致环境政策的各项目标。

此外，香港质量保证局于 2024 年 1 月为化验所的环境管理系统进行审核，并确认化验所的环境管理系统及有关运作程序持续符合 ISO 14001 标准的要求，而环境化学A组、环境化学B组、微量元素化验组、残留组、外判管理组和质量管理组亦能维持原有认证。

## Environmental Monitoring and Audits

To evaluate the GL's environmental performance, and to demonstrate compliance with our obligations, a yearly environmental monitoring programme was conducted to check the levels of pollutants in the effluent and air discharge produced from the Sections implementing ISO 14001. The environmental monitoring programme for 2023 was completed, in which the results of all test parameters were found to comply with relevant regulatory limits.

The annual internal audit was carried out in December 2023. The findings of the internal audit indicated that the EMS adopted in the GL had been well implemented and met the goals of the environmental policy effectively.

Moreover, a surveillance visit conducted by the Hong Kong Quality Assurance Agency was carried out in January 2024. The audit team concluded that the GL's environmental management system and relevant operating procedures continued to fulfil the requirements of ISO 14001 standard. The ECA Section, ECB Section, TE Section, RE Section, OM Section and QM Section were granted continuity of certification status.





## 碳管理 Carbon Management

大部份设有政府化验所实验室的建筑物均与其他政府部门共享，并由有关管理办事处或政府产业署管理。而位于香港岛薄扶林域多利道 800 号的食物安全检测所，则由政府化验所独立管理。目前，检测所设有残留组，负责检测食品中的兽药残留和农药残留。

政府化验所根据由环境保护署及机电工程署联合出版的「香港建筑物（商业、住宅或公共用途）的温室气体排放及减除的核算和报告指引」为食物安全检测所进行碳审计评估，结果显示检测所在 2022-23 财政年度的温室气体排放量为 1273 公吨二氧化碳当量，相比 2021-22 财政年度，减少了大约 8 %。

政府承诺与社会紧密合作，一同致力减少温室气体的排放，共同达成减碳目标。在未来日子，政府化验所会继续寻求并采取有效可行的环保措施，减少碳排放。

Most premises housing the laboratories of the GL are shared with other government departments and hence co-managed by the respective building management office or the Government Property Agency. On the other hand, the Food Safety Laboratory (FSL) located at 800 Victoria Road, Pokfulam in the Hong Kong Island is a premise solely managed by the GL. Currently, the FSL houses the Residues Section which is responsible for testing residues of veterinary drugs and pesticides in food.

The GL has conducted a “Paper Approach” carbon audit on the FSL in accordance with the “Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purpose) in Hong Kong” compiled by the Environmental Protection Department (EPD) and the Electrical and Mechanical Services Department (EMSD). The audit results indicated that the amount of greenhouse gas (GHG) emissions in the fiscal year 2022-23 was 1273 tonnes of CO<sub>2</sub>-equivalent, which was around 8 % reduction compared to that in the fiscal year 2021-22.

It is the commitment of the Government to work closely with the community to reduce GHG emissions to meet the decarbonization targets. In the future, the GL will continue to explore and adopt practicable green measures to reduce carbon emissions.

# 节能绿建 Energy Saving and Green Buildings

政府在《2019年施政报告》制定了一个五年「绿色能源目标」，期望在2020-21至2024-25年间，以2018-19年为基准年，在运作环境相若的基础上，能达致6%的「绿色能源目标」。为响应政府节约用电的政策，食物安全检测所已完成了三项能源管理机会项目，总结2022-23财政年度内的用电量，比2018-19基准年的水平减少了5.1%。

另外，食物安全检测所在两个办公室和一个会议室的窗户安装了太阳隔热膜后，房间温度平均下降了大约2°C，有助节省空调能源。政府化验所将继续探讨更多节能方案，以达到既定的目标。

The Government formulated a five-year “Green Energy Target” in the 2019 Policy Address which set a 6% “Green Energy Target” for the period of 2020-21 to 2024-25 under comparable operating conditions using 2018-19 as the baseline. In order to support the government policy on electricity saving, the FSL had completed three items of Energy Management Opportunities. The electricity consumption of the FSL in the fiscal year 2022-23 was reduced by 5.1% compared with that of the baseline year in 2018-19.

Moreover, the installation of solar control window films in two office rooms and one conference room resulted in a room temperature decrease by an average of around 2°C, thereby saving air conditioning energy. The GL will continue to explore more energy-saving measures to achieve the established target.



# 资源耗用 Resource Consumption

政府化验所环境安全及保安小组不仅制订环保指引，更不时提醒员工遵守相关指引和守则。就此，我们按时监察信封、复印机纸张和电力的耗用量，作为年度环保成效的指标。

政府化验所在不断为客户部门扩展化验服务的情况下，除了复印机纸张在2023年的耗用量或因建立新实验室而略有增加外，各项资源的耗用量大致保持平稳。我们会继续透过运用科技，尽可能减少资源耗用。

The LESSC has prepared the environmental guidelines and frequently reminds colleagues to implement the green housekeeping measures stipulated therein. In this connection, the consumption of envelopes, photocopier paper and electricity was monitored as the indicators of annual environmental performance.

The resource consumption by the GL was relatively steady despite the continuous expansion of new analytical services offered to client departments, with the exception of an increase in photocopier paper consumption in 2023 due to the setup of new laboratories. The GL will keep making use of technology to minimize resource consumption as far as practicable.

年度环保成效指标  
Annual Environmental Performance Indicators

	2019	2020	2021	2022	2023
信封 (个) Envelope (No.)	5085	3324	4244	3380	4103
复印机纸张 (千克) Photocopier paper (kg)	2743	2041	2265	2875	3262
电力* (10 <sup>3</sup> kWh) Electricity (10 <sup>3</sup> kWh)	2403	2692	2690	2570	2351

\*政府化验所总部的用电量

\*Electrical consumption of the Government Laboratory Headquarters



# 废物减量 Waste Reduction

在现行的环境管理系统下，政府化验所实施有效的废物管理，定期监测日常运作所产生的污水与废气，确保其污染物含量符合有关法例规定。此外，所有员工必须接受培训，并定期予以提醒需按照既定的环境指引妥善处理各种废物。

政府化验所产生的化学废物全部由专责机构收集和处理。化学废物的产生总量在 2023 年为 8629 升。我们会继续透过提升检测方法的环境绩效，务求减少化学废物的产生量。

Under the existing EMS, GL has implemented effective waste management to ensure compliance with relevant regulatory limits by regularly monitoring the level of pollutants in the effluent and air discharge generated in daily operations. Moreover, all staff members are trained and constantly reminded to dispose of different kinds of wastes properly in accordance with the established environmental guidelines.

All chemical wastes generated in the GL are collected by authorised agents for treatment. The total amount of chemical wastes generated was reported to be 8629 L in 2023. The GL will continue to reduce the generation of chemical wastes through the enhancement of the environmental performance of testing methods.

ISO 14001 认证组别所产生的化学废物量  
Amounts of Chemical Wastes Generated by Sections Implementing ISO 14001

	2019	2020	2021	2022	2023
酸性化学废物 (升) Acidic Waste (L)	5274	4541	4859	4137	4077
碱性化学废物 (升) Alkali Waste (L)	109	147	202	64	52
卤化有机化学废物 (升) Halogenated Waste (L)	1667	1541	1573	1482	1534
非卤化有机化学废物 (升) Non-Halogenated Waste (L)	2215	2282	2247	2526	2966
总量 (升) Total (L)	9265	8511	8881	8209	8629





# 室内空气质素 Indoor Air Quality



政府化驗所

Government Laboratory

**政**府化驗所一向致力在多方面改善工作环境的质素。现时，我们有六个实验室处所参与「室内空气质素认证计划」，包括何文田政府合署的政府化驗所总部、荔枝角政府合署、工务中央试验所大楼、食物安全检测所、香港科学园及公共卫生检测中心，并获得「卓越级」或「良好级」的认证。

**T**he GL takes every opportunity to improve the quality of our working environment. Regarding Indoor Air Quality, our laboratories in six locations, including the Headquarters at the Ho Man Tin Government Offices, Lai Chi Kok Government Offices, FSL, Public Works Central Laboratory Building, Hong Kong Science Park and Public Health Laboratory Centre, have attained the "Excellent" or "Good" Class in the Indoor Air Quality Certification Scheme.



# 环境管理改善措施

## Initiatives on Environmental Improvement

**继**品质管理组和外判管理组于 2023 年 1 月成功取得 ISO 14001 认证后，政府化验所合共有六个组别已经获取认证。政府化验所会透过持续优化资源，继续逐步扩大认证范围，以涵盖其他组别。在这方面，策略性发展组计划在短期内获取 ISO 14001 认证。

政府化验所继续采用无纸化的环境管理系统，系统内的文件及记录均为电子版本。另外，化验所亦会为实行电子档案保管系统作准备，藉此进一步减少用纸。

此外，政府化验所根据政府的环境政策，推广切实可行的绿色采购，鼓励各组别人员在采购政府环保采购清单上的物品和服务时，采用相关通函制订的绿色规格。化验所亦会探讨提升信息科技系统的可行性，以促进绿色采购。

After the QM Section and OM Section successfully obtained ISO 14001 certification in January 2023, the GL has totally 6 Sections that have been certified. The GL will continue to extend the certification scope progressively to cover other Sections through optimising existing resources. In this regard, the Strategic Development Section plans to seek ISO 14001 certification in the near future.

The GL continues to adopt a paper-free EMS, in which the environmental documents and records are maintained in electronic format. Furthermore, the GL will also prepare for the implementation of Electronic Recordkeeping System to further reduce paper usage.

In addition, the GL will continue to promote green procurement in accordance with the Government's environmental policy. Sections are encouraged to adopt the green specifications when procuring goods and services in the green procurement list stipulated in the relevant government circular. The GL will also explore the feasibility of upgrading its IT system to facilitate green procurement.

# 展望 Way Forward

一如既往，我们为了不断提升环境绩效，会持续审视其运作。所有组别将继续检讨其分析方法，精简工作流程，及寻找非环境友善化学品的替代物，确保既定的环境指引和程序得以有效实施。同时，我们会继续发掘和推行可行的节能减废措施，以减少碳排放。

展望未来，为进一步提高政府化验所的环境绩效及配合未来发展，我们会努力优化现有资源的使用，逐步扩大环境认证范围，以涵盖整个部门。

As always, in pursuit of continuous improvement in environmental performance, we will constantly review our operation. All Sections will continue to examine their analytical methods, streamline processes and explore alternatives for replacing non-environmental friendly chemicals to ensure that the established environmental guidelines and procedures are fully implemented. Meanwhile, we will continue to explore and adopt practicable energy saving and waste reduction measures to minimize carbon emissions.

Looking forward, to further enhance the GL's environmental performance and cope with future development, we strive to extend the scope of environmental certification progressively across the department through optimizing the utilisation of existing resources.





## 意见及查询 Feedback and Enquiries

如对本报告有任何意见及查询，请联络政府化验所部门主任秘书。

Please direct all feedback and enquiries concerning this report to the Departmental Secretary of the GL.



2762 3700



2714 4083



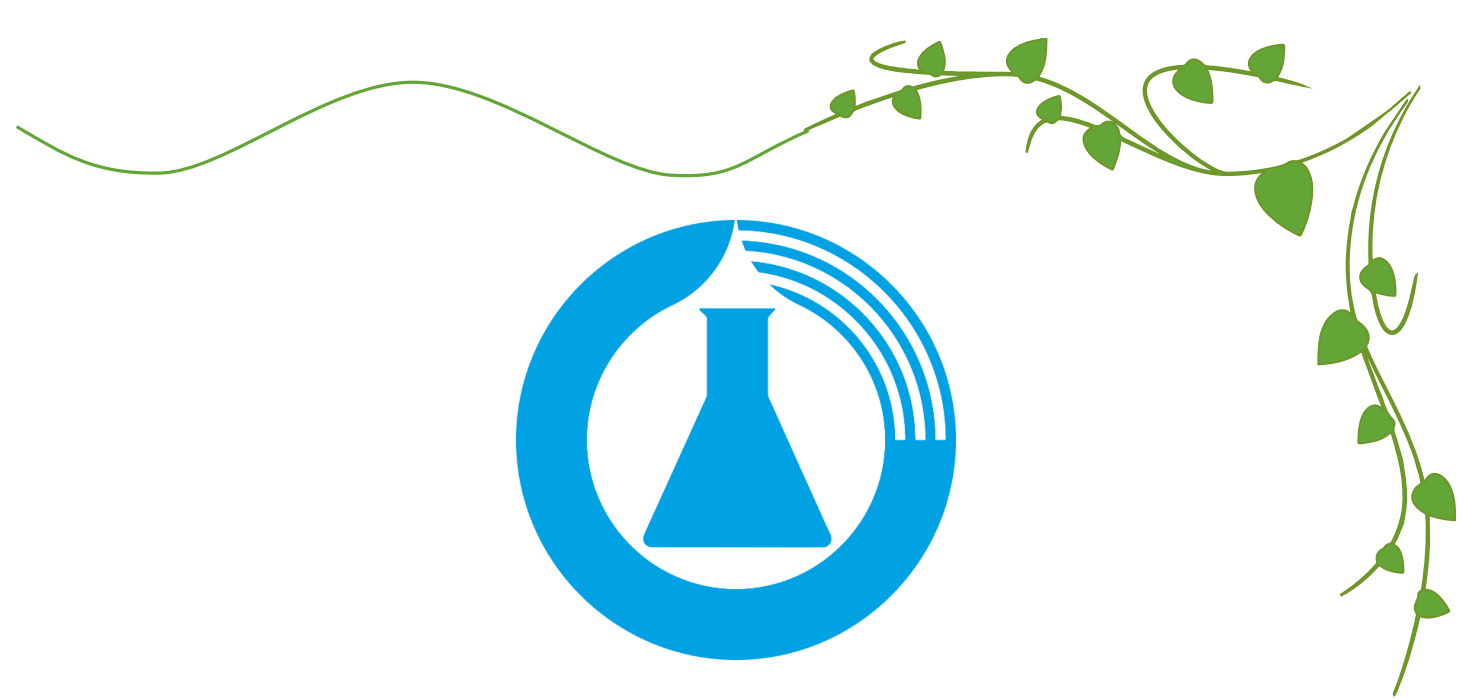
[glabinfo@govtlab.gov.hk](mailto:glabinfo@govtlab.gov.hk)



[www.govtlab.gov.hk](http://www.govtlab.gov.hk)



香港九龙何文田忠孝街 88 号何文田政府合署7樓  
7/F, Ho Man Tin Government Offices,  
88 Chung Hau Street, Ho Man Tin, Kowloon, Hong Kong



# 政府化验所

---

## Government Laboratory

香港特别行政区 政府化验所

©香港特别行政区政府 版权所有

翻印本报告之全部或部份内容，必须事先获得政府化验师的书面批准。

Government Laboratory, HKSAR

©The Government of the Hong Kong Special Administrative Region. All rights reserved.

This report shall not be reproduced in full or in part without the permission of the Government Chemist.

