



National  
Metrology  
Institute



## Proficiency Test

# Gas analysis: Volatile Organic Components

Many laboratories participate in Proficiency Tests (PT schemes) or interlaboratory comparisons (ILC). Measurement results from multiple laboratories are anonymously compared with each other to identify any deviations. The results will give you valuable insights into your laboratory's performance, ensure and even increase your quality, can be used as a reliable tool for quality and risk management and will meet the requirements of various accreditations and ISO/IEC 17025:2017.

VSL organizes PTs under the ISO/IEC 17043:2010 accreditation with the highest care. When organizing any PT, VSL will:

- provide a suitable artifact;
- compose a test protocol;
- deliver an independent assessment report;
- provide anonymous comparison of results;
- offer metrological and quality management support at request.

### Selection of participants:

Available for laboratories working with international standards (e.g. ASTM D1945, GPA 2261, GPA 2286, ISO 6974, ISO 6976, ISO 17023) and all in house methods for VOC composition measurements.

### Registration:

Please go to our website [www.vsl.nl/en/services/proficiency-testing](http://www.vsl.nl/en/services/proficiency-testing) to fill in the registration form.

### Fee:

€ 2.500,00 (including transport (EU) and excluding VAT)

### Transport

On request (outside EU)

### Terms of payment:

Payment in advance. Invoice will be sent 1 month before the start of the PT. Payment is due within 30 days after invoice date.

### Schedule:

The up-to-date PT schedule can be found on our website.

## About VSL

VSL, the National Metrology Institute for The Netherlands, is a globally accredited PT provider (ISO/IEC 17043:2010, our scope reg. nr. R006).

Our independent comparisons covers a broad range of areas including pressure, mass, viscosity, temperature, electricity, length, chemical analysis, humidity and gas flow. Customers also ask VSL for advice and implementation of custom comparisons. We encompass all calibration capabilities across various technological fields listed in our extensive ISO/IEC 17025:2017 accredited calibration scope (reg.nr. K999) and our ISO 17034:2016 scope (reg. nr. P002).



For more information on VSL and our offerings, please visit our website at [www.vsl.nl/en/services/proficiency-testing](http://www.vsl.nl/en/services/proficiency-testing). Should you have any questions or wish to join our PTs, feel free to contact us.



**Estimated number of participants:**

Minimal 10 participants, maximal 25 participants

VSL reserves the right to cancel the PT in case the number of participants is smaller than anticipated. In that case, VSL will contact you to find a suitable solution

**Reference laboratory:**

The reference values for this PT will be delivered by VSL, the National Metrology Institute for the Netherlands.

**Measurements protocol:**

VSL will provide the protocol before the shipment of the tubes.

Each participant will have 3 weeks to perform the calibration.

**Evaluation:**

Evaluation will be done by normalised error, defined as 
$$E_n = \frac{x_i - X_{ref,i}}{\sqrt{U_{ref,i}^2 + U_{stat,i}^2}}$$

**Confidentiality statement:**

VSL keeps all data regarding the performance of individual participants, or groups of participants, strictly confidential. Data is accordingly protected and stored in areas on networks with restricted access. The relationship between results and the laboratories that submitted them will never be disclosed. Only the laboratory is granted access to its performance through the assigned code number.

**Deliverables:**

VSL will provide 4 VOC tubes for analysis and will deliver a test report including the anonymized measurement results of the comparison.

**Information about the artifact to be used:**

4 tubes, two sampled with the calibration gas mixture (one sampling level) and 1 or 2 blanks. The tubes contain a mixture of 8-10 VOC selected out of a total of 20 (Aliphatic hydrocarbons, Aromatic hydrocarbons, Halogenated hydrocarbons, Oxygenated hydrocarbons).

**VOC gas composition range:**

A mixture of 8-10 VOC selected out of a total of 20 VOC (Aliphatic hydrocarbons, Aromatic hydrocarbons, Halogenated hydrocarbons, Oxygenated hydrocarbons).

**VSL**

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