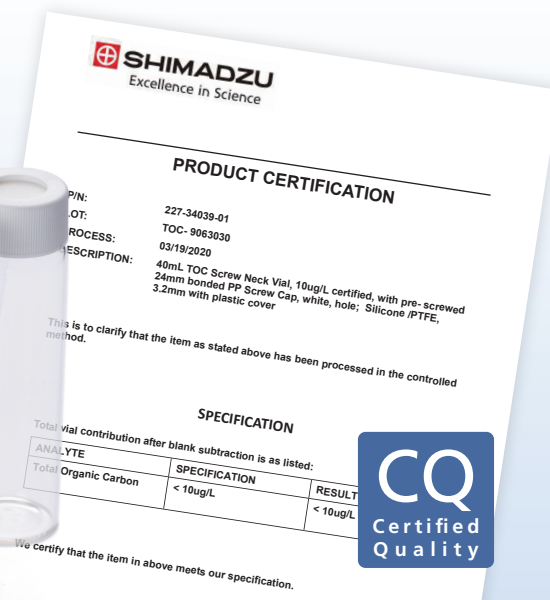


Certified Pre-Cleaned Vials
for Total Organic Carbon Analyzers

CQ Vial for TOC



Measuring the total organic carbon (TOC) content in pure water involves a risk of laboratory equipment contamination having a major impact on measurement values. Therefore, vials used for TOC measurements must be cleaned, dried, and stored very carefully. If those steps are not always performed, the reliability of measurement values can be compromised.

In contrast to conventional vials, Certified Quality (CQ) vial maximize reliability and enable higher workflow efficiency. They are prepared with strictly controlled manufacturing and cleaning processes that inhibit leaching of impurities into the vial down to extremely low levels. That makes them ideal for measuring pure water or low-concentration samples.

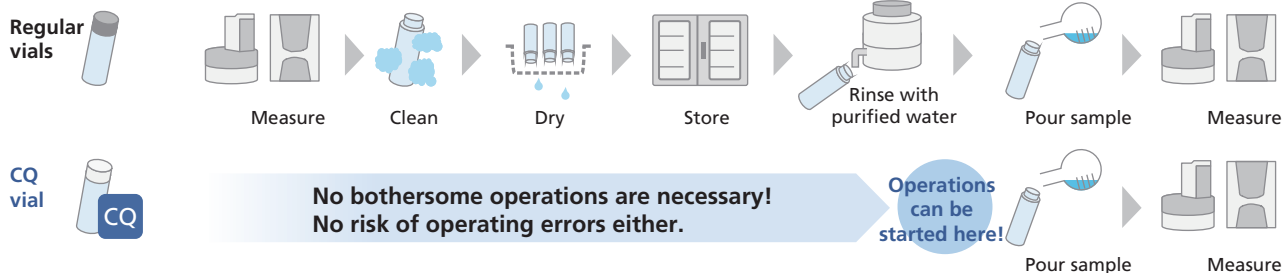
Reliability

- CQ vial include a product certification. The vials are shipped with a certificate that certifies that the quantity of organic impurities leached into the vial is less than 10 µg C/L.
- CQ vial are pre-cleaned. This process prevents accidental contamination during cleaning, drying, or storage in the laboratory.
- CQ vial are sealed with a cap and septum and packed in a plastic box that inhibits dust or other matter.



Efficiency

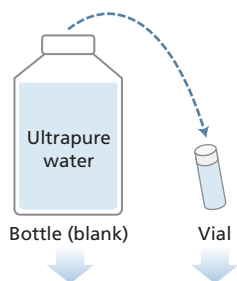
- CQ vial are pre-cleaned. They can be used immediately after opening the box.
- Cleaning and drying operations are no longer needed. It also eliminates the need to carefully avoid contamination during storage. That means significantly less time and space are required for operations.



Measurement Data

Measurement Method

1. A large thoroughly-cleaned glass bottle was filled with ultrapure water. That water was dispensed from the bottle into a vial and the TOC level was measured in both the bottle and vial.
2. Using the bottle water measurement results as blank data, the quantity leached from the vial was determined by subtracting the blank measurement results from the vial measurement results.
3. Leaching was evaluated in that way a total of six times, including three times for vials (reused vials) cleaned using a laboratory equipment cleaning machine and three times using CQ pre-cleaned vials.



TOC concentration measured in water from both containers

Type	Iterations	Blank [B µg/L]	Vial [V µg/L]	Leached [V-B µg/L]
Reused vials	1	25.23	134.2	108.97
	2	27.25	94.43	67.18
	3	26.69	133.0	106.31
CQ vial	1	28.68	35.29	6.61
	2	27.05	35.38	8.33
	3	25.86	32.23	6.37

Note: Data is from a single example. Results may vary depending on usage conditions.

CQ vial were significantly more effective at inhibiting leaching than the vials cleaned in the cleaning machine. Therefore, the use of CQ vial should be considered not only by customers measuring pure water, but also by customers that want to avoid contamination during vial cleaning, drying, and storage, and customers looking to save the time and space required for cleaning, drying, and storing vials.

Specifications

Product Name : CQ vial for TOC

Part No : 227-34039-01

Product Contents : 72 40mL vials and quality assurance certificate

Applicable Models: Autosamplers (that hold 40-mL vials) for TOC-L or TOC-V analyzers



Shimadzu Corporation

www.shimadzu.com/an/

For Research Use Only. Not for use in diagnostic procedures.

This publication may contain references to products that are not available in your country. Please contact us to check the availability of these products in your country.

Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol "TM" or "®".

Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol "TM" or "®".

Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own.

The contents of this publication are provided to you "as is" without warranty of any kind, and are subject to change without notice. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication.

© Shimadzu Corporation, 2020
First Edition: November 2020, 3655-03009-PDFIT