

Wet Chemistry: Chemical Oxygen Demand (COD)

Easy-to-use COD MicroVials™ provide accurate COD results at a savings for your laboratory.

COD MicroVials require just 2mL of sample for analysis. To use, add the sample to the vial, digest at 150°C for two hours and then read COD on your spectrophotometer.

If you currently use COD vials, you can directly substitute MicroVials without any changes to your equipment or method. MicroVials are guaranteed to provide consistent and equivalent results with your current spectrophotometer and calibration curves—no method modification or instrument modification is necessary.

COD MicroVials are laboratory-tested to ensure superior quality.

Rigorous checks of each lot of MicroVials are performed by an independent laboratory. Vials are analyzed with NIST traceable standards at the lower MDL, then at 25% and 75% of the upper MDL. In addition, each lot of MicroVials is compared to reference vials of the true value for lot certification.

Each lot analysis is performed twice, once with a Hach* DR 2010 spectrophotometer and once with a SPEC 21 spectrophotometer. All data points in each study must fall within an acceptance range of 95.0 – 105.0%.

In addition to reagent analysis, each lot of glass vials is checked and certified for spectral quality before use. Teflon* caps and liners undergo lot-to-lot quality control to ensure cleanliness, leak free digestions and chemical inertness.



Low and middle range COD MicroVials with Mercury are EPA approved.

Environmental Express offers two different reagent packages for low-range, high-range and ultra high-range COD measurement. MicroVials with mercuric sulfate fully comply with EPA methodology. COD vials without mercury are also available. Mercury-free vials should only be used when chlorides are not a concern and EPA reporting is not required.

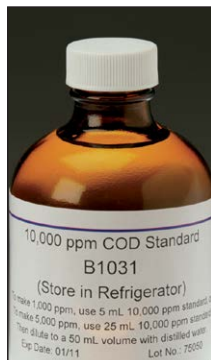
Description/ Range/ppm	MDL	Mercury	EPA Approved	Hach #	Catalog #
COD Vials, 0-150mg/L	10	yes	yes	21258-15/25	B1010
COD vials, 0-1500mg/L	30	yes	yes	21259-15/25	B1015
COD vials, 0-15,000mg/L	300	yes	no	24159-15/25	B1020
COD vials, 0-150mg/L	10	no	no	25650-15/25	B0010
COD vials, 0-1500mg/L	30	no	no	25651-15/25	B0015
COD vials, 0-15,000mg/L	300	no	no	—	B0020

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Environmental Express offers COD Standards in 1,000 and 10,000 ppm.

Standards are made from primary standard grade potassium hydrogen phthalate and can be used with both the EPA approved vials and the mercury-free vials. COD standards have a 12-month shelf life and require refrigeration.

Description	Concentration	Volume	Catalog #
COD Standard	1000mg/L	250mL	B1030
COD Standard	10000mg/L	250mL	B1031

All CHEMETRICS Kits require the use of a Digester Block.

The A-0111 CHEMETRICS Digester Block has 12 cell shafts to accommodate reaction cells 16mm \pm 0.2. Reaction times can be set for 20, 30, 60 or 120 minutes with fixed temperature settings of 100, 120, 148 or 150°C.

Other Specifications Include:

- Overtemperature Protection
- Heating time (with empty thermoblock)
 - from 25°C to 100°C, approximately 5 minutes
 - from 25°C to 120°C, approximately 7 minutes
 - from 25°C to 148°C, approximately 10 minutes
- Temperature stability \pm 0.5 K
- Set to operate at 115 volts

Description	Catalog #
Digester Block and US electric cable	CHA-0201



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