

## CHEMICAL OXYGEN DEMAND - COD REAGENTS

Reagecon offer reagents for the two accepted methods for measuring COD at concentrations of less than 400mg/l. Where the concentration is greater than 400mg/l, dilute the sample.

Product No.	Description	Pack Size
WTR50W	COD Reagent (1977 method)	2.5L
WTR49W	Modified COD Reagent (1986 method) Mercury free	2.5L

## ADDITIONAL REAGENTS ARE AS FOLLOWS:

Product No.	Description	Pack Size
CODMS	20% w/v Mercury (II) Sulphate in 10% w/v Sulphuric Acid	500ml
KC2002F	0.0208M (0.125N) Potassium Dichromate	1L
AGN01001	Silver Nitrate Solution 1000g/l	100ml
AGS1W	1% w/v Silver Sulphate in Sulphuric Acid	2.5L
COD200	COD Calibration Standard 200mg/l Solution	500ml
COD600	COD Calibration Standard 600mg/l Solution	500ml
COD1300	COD Calibration Standard 1300mg/l Solution	500ml
PFS1	Ferrouin Indicator	100ml

## METHODOLOGY

Methodology as per the Department of the Environment (U.K.) "Chemical Oxygen Demand (Dichromate Value) of Polluted and Waste Waters" published in 1977 and revised in 1986.

### 1977 METHOD

- Pipette 10ml of sample (or diluted sample) into a 150ml boiling flask containing clean washed anti-bumping granules.
- Add, by pipette, 1ml of 20% Mercury (II) sulphate (CODMS), mix well.
- Add 18.5ml of COD reagent (WTR50W), mix well.
- Fit the condenser and boil gently, under reflux, for 2 hours + 10 minutes.
- Cool and add 25ml of distilled water via the condenser.
- Disconnect the flask, cool to 25°C under running water, add 1-2 drops of Ferrouin indicator (PFS1) and titrate excess Potassium dichromate with the standardised Ammonium Iron (II) sulphate (AF20251). End point is indicated by a change from blue/green to orange. Carry out a blank determination on all reagents replacing the sample with 10ml of distilled water.

### 1986 METHOD

As per the 1977 method but with the following changes:

Step 2. Add, by pipette, 0.6ml of 1,000g/l Silver nitrate solution (AGN01001), 0.4ml of distilled water, mix well and leave to stand for 2 minutes.

Step 3. Add 18.5ml of modified COD reagent (WTR49W)

## COD VIALS & COD STANDARDS

### COD Reagent Vials

As well as being compatible with the PC Compact COD Vario, Reagecon's COD Reagent Vials can also be used in conjunction with the Aqualytic PC Spectro and all Hach TM spectrophotometers. This compatibility is proven in the Reagecon Technical Publication, "A comparative study of the performance of Reagecon COD vials and Hach TM COD vials" – available in the Technical section of Reagecon's website – [www.reagecon.com](http://www.reagecon.com). Reagecon supply COD Reagent Vials and also offer a collection and disposal service for used vials that complies with all relevant dangerous goods disposal and environmental regulations.



### COD REAGENT VIALS - ORDERING INFORMATION

Cat No.	Description	Pack Size
470720	COD Reagent Vials Measuring Range 0-150mg/l	25 vials per box
470720R	COD Reagent Vials Measuring Range 0-150mg/l, price includes compliant disposal of vials	25 vials per box
470721	COD Reagent Vials Measuring Ranges 0-1500mg/l	25 vials per box
470721R	COD Reagent Vials Measuring Range 0-1500mg/l, price includes compliant disposal of vials	25 vials per box
470722	COD Reagent Vials Measuring Range 0-15000mg/l	25 vials per box
470722R	COD Reagent Vials Measuring Range 0-15000mg/l, price includes compliant disposal of vials	25 vials per box

### COD Standards

Reagecon manufacture a comprehensive range of COD Standards. These standards are ideal for use as Control Standards to verify that correct analysis for COD has taken place. Achieving an acceptable result for the Control Standard will improve confidence in sample readings for this important environmental parameter.

Cat No.	Description	Pack Size
COD10	COD Calibration Standard 10mg/l Solution	500ml
COD50	COD Calibration Standard 50mg/l Solution	500ml
COD100	COD Calibration Standard 100mg/l Solution	500ml
COD200	COD Calibration Standard 200mg/l Solution	500ml
COD500	COD Calibration Standard 500mg/l Solution	500ml
COD600	COD Calibration Standard 600mg/l Solution	500ml
COD1000	COD Calibration Standard 1000mg/l Solution	500ml
COD1300	COD Calibration Standard 1300mg/l Solution	500ml
COD1500	COD Calibration Standard 1500mg/l Solution	500ml
COD5000	COD Calibration Standard 5000mg/l Solution	500ml
COD10M	COD Calibration Standard 10000mg/l Solution	500ml