

Automate your processes
Automate your lab
Innovate

with **EasyPREP**
COD-200

Automated Chemical Oxygen Demand Analyzer

Mixes, Heats, Cools and Analyzes COD Samples

Compatible with Potassium Dichromate
and Potassium Permanganate Methods

Turbidity Detection

ISO 15705 and 8467 Compliant

EPA 410.4 Compliant




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Environmental awareness and monitoring are crucial in ensuring a healthy and balanced ecosystem. Environmental Law plays a vital role in regulating the use of natural resources and in protecting the environment. Numerous regulations have been put forth at national and international levels in order to reinforce practices that would maintain a healthy environment.

The **EasyPREP** portfolio provides environmental testing laboratories with the technologies required to comply with environmental water legislation through automated, unattended, environmental testing, analytical platforms.



Overview

User places COD reagent tubes with samples on system which automatically digests, homogenizes and analyzes. The measurement activity and concentration calculation are displayed in real-time on the screen.

- Fully automated system from sample pick up to output of results
 - » Includes: digestion, sample time tracking, shaking, analysis, data transposition and storage
- Sample capacity of 217 COD tubes
- Measure samples 0.5mg/L to 1500mg/L O₂
- Teflon® coated graphite block for optimal heat uniformity and corrosion resistance
- Complies with ISO 15705, ISO 8467 and EPA 410.4
- User friendly software with real-time graphical display of the samples process
- LIMS compatible output file. Sample ID's are saved for full traceability

Specifications

THE COD-200 OFFERS ANALYSIS OF THE FOLLOWING METHODS:

Chemistry	LED Wavelength (nm)	LED Bandwidth (nm)	Method	Detection Limit	Detection Range	Accuracy (% of reading)	Precision (% of reading)
Potassium Permanganate	525	35	ISO 8467	0.5 ppm	0.5 - 10 mg/L O ₂	5	3.5
Potassium Dichromate	590	20	ISO 15705 EPA 410.4	3 ppm	3 - 100 mg/L O ₂	3.5	5
					100 - 500 mg/L O ₂	2.5	1
					500 - 1500 mg/L O ₂	0.5	0.3
Potassium Dichromate	420	16	ISO 15705	5 ppm	5 - 150 mg/L O ₂	3.5	3
Turbidity Detection	850	37	---	2.5 NTU	2.5 - 50 NTU	---	---

The COD-200 offers turbidity detection. In turbid samples, light scattered from solid particles may interfere with the sample's measured absorbance. In COD analysis, the presence of turbidity can cause deviations of up to 30% from the real sample value. This capability allows the end user to confidently analyse samples knowing that the turbidity level is adequate for COD analysis.

Software Features

METHOD BUILDING

- Intuitive method building for analysis of up to 217 samples
- Spectrophotometer designed to allow COD analysis for Low Dichromate (420nm), High Dichromate (590nm) or Permanganate (525nm) analysis methods
- Increase productivity by building a method that combines analysis of low Dichromate (420nm) and high Dichromate (590nm) samples
- Run in Full Analysis mode, which includes digestion and reading, or simply in Analysis mode for reading only
- Use the Turbidity Detection option in order to perform Quality control on each sample
- Automated sample concentration calculation
- Input sample dilution factor
- Save method building time by Saving and uploading pre-saved methods
- Import sample names for traceability
- Track individual samples through barcoding

METHOD CONFIGURATION

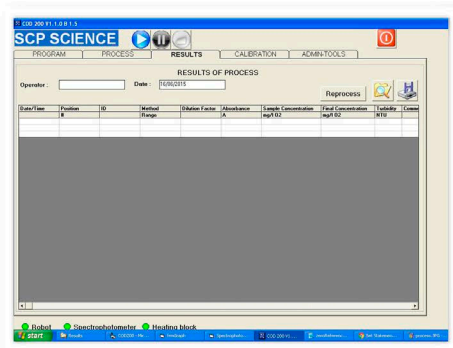
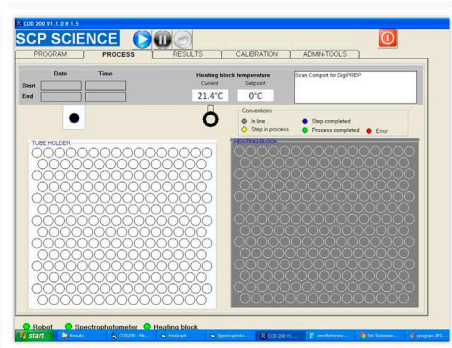
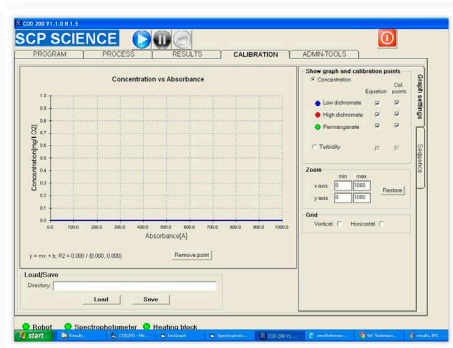
- User-defined digestion time, cooling time and digestion temperature allowing compliance with established ISO, EPA and Standard Methods
- Real time monitoring of digestion block temperature allows user to detect possible analysis failure
- Real-time visualization of the run status allows users to track progress
- Samples are individually timed to allow accurate COD analysis

RESULTS

- Automatic real-time export of data into csv file for LIMS
- Sample results are saved for recalibration
- Automatic dilution factor correction
- Flagging of suspect results

CALIBRATION

- Method driven calibration of the spectrophotometer for Low Dichromate (420nm), High Dichromate (590nm), Permanganate (525nm) and Turbidity (850nm) analysis
- Graphic visualization of the calibration curves
- Save and upload calibration data for quick reference



COD-200 Ordering Information

STEP 1 - ORDER INSTRUMENT

Description	Catalog #
COD-200 (110V/230V) with software	010-440-001

ITEMS INCLUDED IN THE BASIC CONFIGURATION

Description	Catalog #
Spectrophotometer for COD-200	---
Digestion system, 217 positions for 12ml tubes	---
Rack, Removable for 217 tubes COD-200	010-440-009
Air assisted gripper (compressor not included)	---

STEP 2 - SELECT 1 OR MORE CHEMISTRIES

Description	Catalog #
Potassium Permanganate, 520nm, ISO 8467	010-440-032
Potassium Dichromate, 590nm, ISO 15705, EPA 410.4	010-440-030
Potassium Dichromate, 420nm, ISO 15705	010-440-034
Turbidity detection, 850nm	010-440-036

**ISO 17025
and
ISO 8655-5
COMPLIANT**

Request Instrument Certification

SYSTEM CALIBRATION OF DISPENSING
ACCURACY CERTIFICATION
Catalog # 010-400-050

STANDARDS & REAGENTS

Description	Concentration	Qty	Catalog #
COD Tubes	0-150ppm	box/25	250-130-006
COD Tubes	0-1500ppm	box/25	250-130-016
COD Tubes	0-15,000ppm	box/25	250-130-026
COD Tubes	0-150ppm	CS/200	250-130-007
COD Tubes	0-1500ppm	CS/200	250-130-017
COD Tubes	0-15,000ppm	CS/200	250-130-027
COD CRM	low level	5ml	140-715-101
COD CRM	high level	20ml	140-715-102
COD Control Solution	100ppm O ₂	125ml	250-130-512
COD Control Solution	100ppm O ₂	500ml	250-130-550
COD Control Solution	100ppm O ₂	1L	250-130-551
COD Control Solution	1000ppm O ₂	125ml	250-130-602
COD Control Solution	1000ppm O ₂	500ml	250-130-600
COD Control Solution	1000ppm O ₂	1L	250-130-601
COD Control Solution	10,000ppm O ₂	125ml	250-130-652
COD Control Solution	10,000ppm O ₂	500ml	250-130-650
COD Control Solution	10,000ppm O ₂	1L	250-130-651

ACCESSORIES

Description	Catalog #
Air Compressor, 50 l/min - 1.77 CFM & 8 bar - 116 psi	010-400-060
Barcode reader, for rapid loading of sample identification	010-600-034
PC with Windows OS	010-400-008

TO LEARN MORE

Please contact one of our sales
representatives at sales@scpscience.com
or visit our website www.scpscience.com
or contact one of our regional offices below

COMPUTER SYSTEM REQUIREMENTS

PC Processor:	1GHz or superior
RAM memory:	1 GB RAM
Disk minimum space:	1 GB free
Ports:	1 USB port available
Operating System:	Windows 8, Windows 7, Windows XP

INSTRUMENT DIMENSIONS

Length	48.75"
Depth	25.75"
Height	24.50"

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