



Chemical Oxygen Demand (COD)

COD or Chemical Oxygen Demand, a commonly analysed parameter in the water and environmental laboratories which contains a lot of harmful chemicals through out the testing process. Hach photometric method could provide you with more accurate results with less steps, equipments and manpower required for conventional method and also significantly reduce risks of human error.

Our ready to use reagents is quick and easy to use, additionally, it greatly reduce contact time and risk of user exposure to harmful chemicals. The ready to use test require very little amount of both chemicals and sample which help you save cost on the waste management part. Please contact our sale representative for more information.

	COD Dichromate	COD Dichromate Mercury Free	COD Manganese III
Item Number COD Vial	2415825 (ULR) 2125825 (LR) 2125925 (HR) 2415925 (HR+)	2565025 (LR) 2565125 (HR)	2623425 (30-1000 ppm)
TNT plus version	TNT 815 (Salt water LR) TNT 816 (salt water HR) TNT 820 (ULR) TNT 821 (LR) TNT 822 (HR) TNT 823 (UHR) TNT 824 (UHR+ to 60000 ppm)	TNT 825 (HR)	NA
Method	Dichromate	Dichromate	Manganese
USEPA Approved	Yes, only LR and HR for both vial and TNT plus	No	No, but ASTM D6697-01
Full Equipment Support (Complete set)	<ul style="list-style-type: none"> Spectrophotometer / Colorimeter COD reactor 	<ul style="list-style-type: none"> Spectrophotometer / Colorimeter COD reactor 	<ul style="list-style-type: none"> Spectrophotometer / Colorimeter COD reactor
SDS chemical composition	<ul style="list-style-type: none"> Sulfuric acid Sulfuric mercury(2+) salt (1:1) Sulfuric acid, disilver(1+) salt Chromic acid 	<ul style="list-style-type: none"> Sulfuric acid Sulfuric acid, disilver(1+) salt Chromic acid 	<ul style="list-style-type: none"> Sulfuric acid Manganese(II) sulfate Potassium permanganate
% RSD of 500 mg/L COD + 500 mg/L Chloride	0,1 % (n=3)	NA	0,6 % (n=4)
Pros and Cons	<ol style="list-style-type: none"> Dichromate accomplishes a complete oxidation when used with a catalyst and a two-hour digestion period. Dichromate is stable at room temperature when protected from exposure to light. Some organic compounds are only partially oxidized. Some organic compounds, such as pyridine, are not oxidized. There can be interference from inorganic pollutants, mainly chloride ions (approximately level concentration more than 200 ppm until salt water level) Reaction temperature is limited by thermal decomposition of the oxidant. Dichromate is classified as a carcinogen. 	<ol style="list-style-type: none"> Dichromate accomplishes a complete oxidation when used with a catalyst and a two-hour digestion period. Dichromate is stable at room temperature when protected from exposure to light. Some organic compounds are only partially oxidized. Some organic compounds, such as pyridine, are not oxidized. There can be interference from inorganic pollutants, mainly chloride ions. (approximately level concentration should be below 150 ppm of chloride and 50 ppm of ammonia) Reaction temperature is limited by thermal decomposition of the oxidant. Dichromate is classified as a carcinogen. 	<ol style="list-style-type: none"> The one-hour digestion period is shorter than other methods. Correlates very well with Dichromate COD and BOD test results. It's not photosensitive. It's stable at room temperature. The reagent contains no hazardous metals and generates no hazardous metal waste. There can be interference from inorganic pollutants, mainly chloride ions. No specific information limitation of inorganic interferences concentration. need run routine samples with and without the chloride removal, then compare results


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