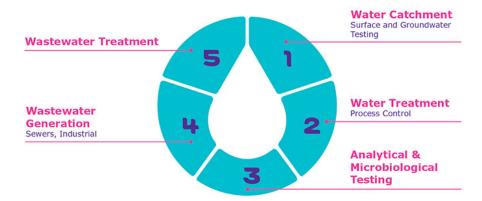
SIGMA-ALDRICH®

Water Quality Testing: Solutions from Catchment to Waste



Globally, over 80% of the wastewater generated by society flows back into the environment without being treated or reused.
Clean water is an essential part of daily life, from catchment all the way through to wastewater treatment, therefore analysis throughout the whole cycle is crucial. Whether in lakes, pipes, or bottles, we can accompany you with our range of instruments, test kits and applications for your water and wastewater needs.



1) Water Catchment—Surface & groundwater testing

Fast testing solutions for measurement in the field. When testing water directly onsite, you need a robust, water- and dusttight instrument for accurate analysis on the go, such as the **Spectroquant** * Move colorimeter. For fast and simple semiquantitative results, take a look at our visual & test strip range.

2) Water Treatment—Process Control

Water treatment processes need constant monitoring using several techniques to aid compliance and improve safety e.g. pH, **turbidity**, or analysis of organics and inorganics using **spectrophotometry**, along with our range of **over 180 test kits**.

3) Analytical & Microbiological Testing

Water needs to be assessed for the presence of potentially dangerous microbes, metals, organics, inorganics. We have a range of solutions for E. coli & coliform detection, bioburden testing, USEPA methods for spectrophotometry, and analysis of volatile & semivolatile compounds. Regulatory compliance is critical, ensure the accuracy of your results with our pre-diluted reference materials and standard concentration solutions.

4 & 5) Wastewater Generation & Treatment

Analysis of wastewater needs to be carried out both before and during treatment in order to ensure that the correct methods are being used, and the cleanliness meets the relevant regulatory guidelines. A range of solutions are available for sample preparation, including SPE and SPME, and for some analyses such as TOC, total nitrogen etc., it is necessary to perform digestion using a thermoreactor or a crack set. Other important parameters which help safeguard our water supplies include surfactant testing and disinfection tests e.g. chlorine, chloride, peracetic acid etc.

Materials

Product #	Description
1.09772	COD Cell Test (Hg-free) Method: photometric 10 - 150 mg/l Spectroquant®
1.01298	Coliforms 100 Readycult® Readycult [®]
1.73632	Colorimeter Move 100 Spectroquant®
1.11151	Compact Laboratory for Water Testing MColortest™
1.14687	Crack Set 10 for the digestion of lead, cadmium, iron, copper, nickel, phosphorus (total) and zinc 100 digestions Spectroquant®
57171	ENVI [™] -18 DSK SPE Disk diam. 47 mm, pk of 24
173017	Prove 300 UV/VIS spectrophotometer 4 nm spectral bandwidth Spectroquant®
173018	Prove 600 UV/VIS spectrophotometer 1,8 nm spectral bandwidth Spectroquant®
57294-U	SPME fiber assembly polyacrylate (PA) d _r 85 µm, for use with autosampler, needle size 23 ga
57225-11	Supelclean FNVI -Chrom P SPF Tube hed wt 250 mg volume 6 ml nk of 30

Product #	Description
53224-U	SupelMIP® SPE - Full Beta-receptor (beta-blockers and beta-agonists) bed wt. 25 mg, volume 3 mL, pk of 50
1.02552	Surfactants (anionic) Cell Test Method: photometric 0.05 - 2.00 mg/l MBAS Spectroquant®
1.01764	Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®
1.71201	Thermoreactor 24 holes, 7 preinstalled programmes and 8 freely selectable programmes TR 420 Spectroquant®
1.18325	Turbidimeter portable, incl. batteries, case, 2 empty cells, manual, handy hints 1100 T 0.01 - 1100 NTU Turbiquant®

References

1. UNESCO (2018) United Nations World Water Development Report 2018: Nature-based solutions for water