

Suspended Solids

Method 8006

Photometric Method¹ (5 to 750 mg/L)

Scope and Application: For water and wastewater

¹ Adapted from *Sewage and Industrial Wastes*, 31, 1159 (1959).



Test Preparation

Collect the following items:

Quantity

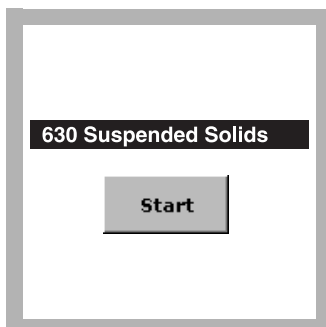
Beaker, 600-mL, polypropylene	1
Blender	1
Cylinder, 500-mL polypropylene, graduated	1
Pipet, serological, 25-mL	1
Pipet Filler, safety bulb	1
Sample Cells, 1-inch square, 10 mL	2

Note: Reorder information for consumables and replacement items is on page 3.

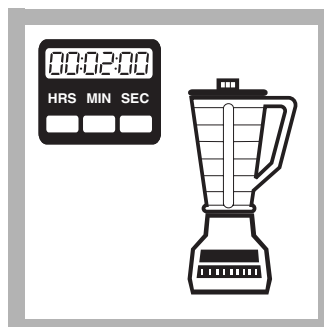
Method 8006



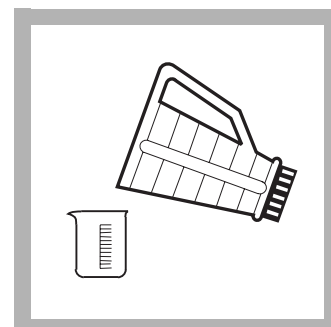
1. Press **STORED PROGRAMS**.



2. Select the test.

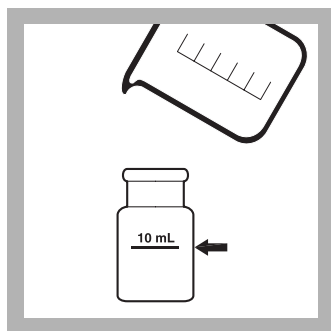


3. Blend 500 mL of sample in a blender at high speed for exactly two minutes.

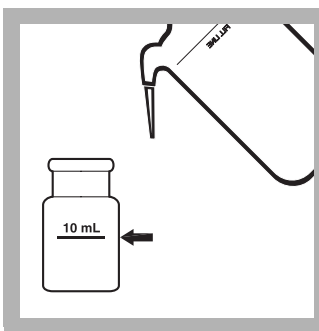


4. Pour the blended sample into a 600-mL beaker.

Suspended Solids (5 to 750 mg/L)



5. Prepared Sample:
Stir the sample and immediately pour 10 mL of the blended sample into a sample cell.

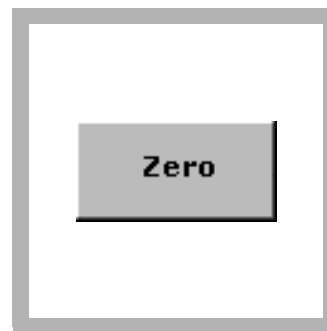


6. Blank Preparation:
Fill a second sample cell with 10 mL of tap water or deionized water.

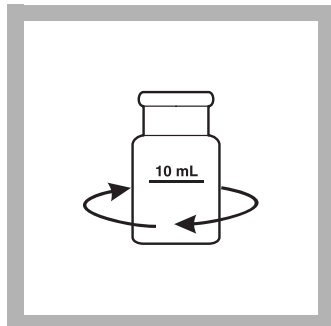
Remove gas bubbles in the water by swirling or tapping the bottom of the cell on a table.



7. Insert the blank into the cell holder with the fill line facing right.



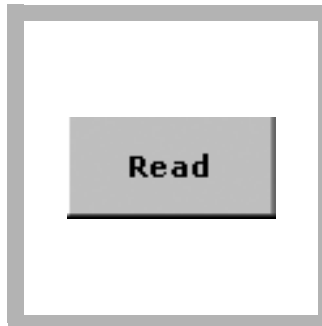
8. Press ZERO.
The display will show:
0 mg/L TSS



9. Swirl the prepared sample to remove any gas bubbles and uniformly suspend any residue.



10. Insert the prepared sample into the cell holder with the fill line facing right.



11. Press READ.
Results are in mg/L TSS.

Interferences

Samples that absorb strongly at 810 nm, such as blue dyes, may give false, high-bias readings. A user-entered calibration is advised for these samples.

Calibration for this test is based on parallel samples using the gravimetric technique on sewage samples from a municipal sewage plant. For most samples, this calibration will provide satisfactory results. When higher accuracy is required, run parallel spectrophotometric and gravimetric determinations with portions of the same sample. The new calibration should be made on your particular sample using a gravimetric technique as a basis.

Sampling and Storage

Collect samples in clean plastic or glass bottles. Analyze samples as soon as possible after collection. The sample may be stored seven days by cooling to 4 °C (39 °F).

Summary of Method

This method of determining suspended solids is a simple, direct measurement which does not require the filtration or ignition/weighing steps that gravimetric procedures do. The USEPA specifies the gravimetric method for solids determinations, while this method is often used for checking in-plant processes. Test results as mg/L total suspended solids (TSS) are measured at 810 nm.

Consumables and Replacement Items

Required Apparatus

Description	Quantity/Test	Unit	Cat. No.
Beaker, 600-mL, polypropylene	1	each	1080-52
Blender, 1.2-L, 120 VAC	1	each	26161-00
Blender, 1.2 L, 240 VAC	1	each	26161-02
Cylinder, 500-mL graduated, polypropylene	1	each	1081-49
Pipet, serological, 25-mL	1	each	2066-40
Pipet Filler, safety bulb	1	each	14651-00
Sample Cells, 1-inch square, 10 mL, matched pair	2	2/pkg	24954-02



FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:

In the U.S.A. – Call toll-free 800-227-4224
Outside the U.S.A. – Contact the HACH office or distributor serving you.
On the Worldwide Web – www.hach.com; E-mail – techhelp@hach.com

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