

## Simplified Suspended Solids Test for Sodium Hypochlorite Solutions

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### Scope

This procedure describes how to use a filter system as an aid to easily determine the clarity of sodium hypochlorite solutions. The bleach filter equipment is inexpensive and is designed for use at the customer's site. For laboratory-quality equipment and procedures to achieve accurate and repeatable results, please refer to the "Suspended Solids Quality Test for Bleach Using Vacuum Filtration".

Item	Part #	Description
1	135-05581-001	180 PVC Vacuum Tubing
2	910-12892-001	Portable Air/Vacuum Pressure Stations
3	135-05583-001	Polypropylene Flask with Angled Tabulation
4	135-05584-001	Vacuum Filter Holder
5	107-07165-001	0 to -30" Hg Vacuum Gauge
6	391-02635-003	Filters, DVPP type, 0.65 micron pore size
7	135-05580-001	Pelican Case



### Procedure

All apparatus should be kept clean and dust free.

1. Assemble filter. Use forceps to place one filter on plastic support base. Put filter funnel and clamp in place.
2. Shake sample bottle. Fill graduated cylinder or beaker to the 1000 ml mark with solution.
3. Start vacuum.
4. Slowly pour the 1000 ml into the top of the vacuum holder. When sample has filtered through completely, record the time of filter.

Bleach that has not been filtered with submicron filtration will take approximately 6 to 8 times longer than filtered product. Typically 1000 ml of high clarity bleach will take less than five minutes at 20" Hg vacuum. After filtration, the filter paper should be near white with virtually no retained particles. Discolored filtered paper typically indicates the presences of iron.

5 Samples of Bleach were tested:

Sample Number	Strength	Filter Time
1	Household Bleach 6%	0 minute 55.88 Seconds
2	Household Bleach 5.25%	1 minute 14.15 Seconds
3	Household Bleach 5.25%	2 minutes 44.07 Seconds
4	Household Bleach 5.25%	7 minutes 48.00 Seconds
5	Pool Bleach 12.5%	The test was stopped after 60 minutes of filtering. At 60 minutes, approximately ½ liter had passed through the filter.



Sample 1

Sample 2

Sample 3

Sample 4

Sample 5