

# Environmental Monitoring Service

Testing and research laboratory for water, soil and food products

Aurobrindavan, Auroville, T.N., India - 605101

Phone: 91-0413-2964096/9786620685

E-mail: [ems@auroville.org.in](mailto:ems@auroville.org.in)

## Test Report

Customer name: Affordable Water

Solutions, Auroville

Nature of product: Emergency

Water Purifier sachets

Sample received: 30/09/2020

Analysis completed: 14/10/2020

Sample collected: By lab person

Lab ID: 78

**Objective:** To examine the efficiency of Emergency Water Purifier sachets to treat water from bacterial and viral contamination.

This is combine report as tests was done during the interval from 30 Sept - 14 Oct.

**General procedure:** Stabilized tap water having pH 6.5-6.7 and TDS 174-180 mg/l was spiked with: *E.coli*, *Streptococcus faecalis*, *Staphylococcus aureus*, *Pseudomonas sp.*, *Vibrio cholerae*, *Salmonella sp.*, cultures with concentration of  $\geq 1 \times 10^6$  CFU/100 ml.

MS2 phage culture with concentration of  $\geq 1 \times 10^6$  PFU/100 ml.

### Method of testing:

*E.coli* tested as per IS-15185:2002.

MS2 tested as per method EPA: 1602 Coliphage in water by single agar layer (SAL)

*Streptococcus faecalis* tested as per method: ISO 1984.

*Staphylococcus aureus* tested by membrane filtration technique by using Hicrome Aureus agar.

*Pseudomonas sp.* testsed as per method: ISO 16266:2006.

*Vibrio cholerae* tested by membrane filtration technique by using Chromogenic Vibrio agar.

*Salmonella sp.* tested by membrane filtration technique by using Hicrome Improved Salmonella agar.

**Source of the microorganism:** *E.coli* - ATCC 19853; MS2 Phage - 15767 - B1; rest is from environmental source.

Results are tabulated below :

Parameters	Units	Removal rate after treatment, %
<i>Escherichia coli</i>	CFU/100 ml	99.99996
MS2 phage	PFU/100 ml	99.9993
<i>Streptococcus faecalis</i>	CFU/100 ml	99.9992
<i>Staphylococcus aureus</i>	CFU/100 ml	99.997
<i>Pseudomonas sp.</i>	CFU/100 ml	99.9990
<i>Vibrio cholerae</i>	CFU/100 ml	99.9997
<i>Salmonella sp.</i>	CFU/100 ml	99.9998

Analyst



Lab executive

