

ENVIRONMENTAL EXPRESS

Microbiology: Frequently Asked Questions

What is the shelf life of the ampuled media and the pre-prepared plates?

The self life is 6 months for the ampuled media and 60 days (2 months) from the pour date for the pre-prepared plates.

Why don't the pre-prepared plates have a pad in the petri dish?

The media is already in the pre-prepared plates and comes in the form of a gel or agar; therefore no pad is needed.

What color will the target colonies be using the various plates and media?

- mEndo broth will yield colonies red in color which may or may not have a sheen to them
- mFc broth will yield colonies that are blue in color
- MTec media will yield colonies with a brownish-tan color
- Modified MTec will yield colonies that are a bright magenta color
- mEI media will yield colonies of various color surrounded by a blue halo

What is the difference between mFc broth with Rosalic Acid and without Rosalic Acid?

The Rosalic Acid makes the mFc media more selective by inhibiting the growth of all bacteria except for fecal coliform. mFc broth without the Rosalic Acid will allow other forms of coliform bacteria to grow, however these colonies will not be blue in color like the fecal coliform colonies.

What is the difference between MTec and Modified MTec media?

Both types of media will support the growth of E. coli bacteria. If running the EPA Method 1603 method you should be using the Modified MTec media. This media does not need a confirmation step following the membrane filtration step while the MTec media may.

Are the pre-prepared plates EPA approved?

While the EPA does not approve pieces of equipment or media used in various EPA methods one can use these plates for NPDES reporting and regulatory compliance samples.

What controls are run on the ampuled media and pre-prepared plates?

Both types of media come with Quality Control sheets containing results from the analysis of known positive and negative strains along with sterility checks.

What type of filter should I use for the membrane filter methods?

A sterile, 0.45 μm MCE filter is the specified filter in all membrane filtration methods. Environmental Express Part # AO45H047A and AO45H047W meet these requirements.

How many milliliters of sample should be filtered during the analysis?

Results for the membrane filtration analysis are expressed in the number of colony forming units (CFUs) per 100 mls of sample. If 100 mls of sample will result in too many colonies the sample should be diluted prior to filtration. One should target sample volumes that yield colony counts between 20 and 60 colonies per membrane.

When running the EPA 1603 method, do I have to incubate samples at 35+/-0.5°C first?

Yes, samples must be incubated at this temperature for 2 hours to resuscitate injured or stressed bacteria before incubating at 44.5+/-0.2°C for 22 hours.

