



How to use....

Coliscan EASYGEL Water Monitoring Kit (Coliform test) INSTRUCTION SHEET

Test Location: Field or Laboratory

Water samples may either be collected in a sterile container and transported to the test site or measured directly from the source and placed directly into the bottle of Coliscan Easygel. Water samples kept longer than 1 hour prior to plating, or any Coliscan Easygel bottle that has had sample placed into it for transport longer than 10 minutes, should be kept on ice or in a refrigerator for plating.

Materials (Included in Module)

Coliscan Easygel
Sample bottles
Petri dishes
Sterile pipettes
Bottled drinking water

Materials (NOT included in Module)

Water Sample (inoculum)
Incubator

Background Information:

This test is useful for determining the amount of *E. coli* and coliform bacteria present in water samples. The Coliscan Easygel contains a sugar with a dye linked to it. When the enzyme beta-galactosidase (produced by coliforms including *E. coli*) acts on this sugar, the colony of coliforms turns a pink color. There is a second sugar in the Easy-gel linked to a different dye which produces a blue-green color when acted on by the enzyme beta-glucuronidase. Because *E. coli* produces both beta-glucuronidase and beta-galactosidase, its overall color will be purple. The combination of these two dyes makes it possible to differentiate and quantify coliforms and *E. coli*. (Because *E. coli* is a member of the coliform group, add the number of purple colonies to the number of pink colonies when counting total coliforms.)

Safety Precautions:

The chemicals and subject of this experiment may be hazardous to the health of the user if ingested. General safety precautions should always be used. Never touch the bacterial colonies with bare hands or skin. Wash thoroughly with anti-bacterial soap and water if contact occurs.