



Serial Dilution Instructions for Iron Oxidizing Broth (IOB) FOR DETECTION OF IRON OXIDIZING BACTERIA

- Product Description:

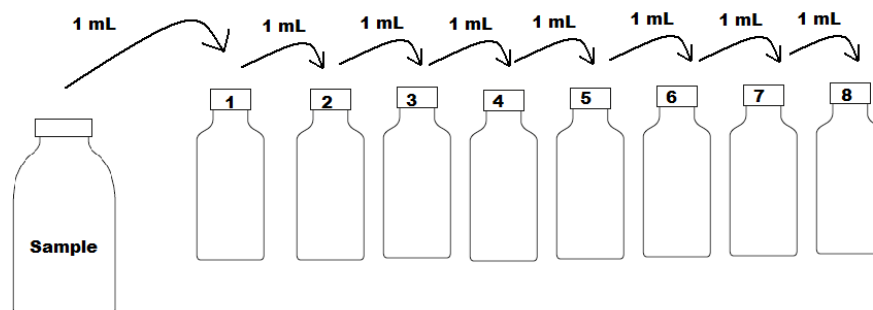
1. N.A.C.E. standard (TM0194-2014) Iron Oxidizing Bacterial Broth
2. Anaerobic bacterial growth media, such as IOB, is extremely sensitive to oxygen exposure. Biotechnology Solutions' anaerobic bacterial growth media is manufactured inside custom built anaerobic chambers to ensure the highest quality bacterial growth media products.
3. **Physical Characteristics:** Orange/brown color.
4. **Chemistry:** Contains inorganic salts and iron-compounds used for the metabolism of and growth of anaerobic Iron Oxidizing Bacteria.
5. **Detection:** Used for the enumeration of total Iron Oxidizing Bacteria (IOB).

- Collecting a Sample:

1. Collect the sample in such a manner as to preclude contamination from external sources.
2. Time, date, temperature, and appearance of the sample should be recorded.

- Preparation:

1. Arrange selected media vials into "Dilution Series".
2. The selected media should approximate the conditions (Temp., TDS, etc.) of the sample water being tested to avoid the "shock" effect on the microbes.



For additional information, please contact us at:
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- Sterilization:

1. Wipe the rubber caps of the media vials with sterile alcohol pads.

- Inoculation:

1. Using a sterile disposable syringe, withdraw 1 mL of the sample and inject it into bottle #1 and discard syringe. Mix contents thoroughly by vigorously agitating the vial. Some bubbles may appear; this is normal.
2. With a new sterile syringe, withdraw 1 mL of solution from bottle #1 and inject it into bottle #2 and discard syringe. Mix contents thoroughly by vigorously agitating the vial.
3. Repeat this process for all the remaining dilution vials (#3 - #6).
4. Incubate the vials at the temperature at which the original sample was collected ($\pm 2^{\circ}\text{C}$). IOB media requires a 14-day incubation period.

- Reading:

1. **Indicator for (IOB):** As anaerobic Iron Oxidizing Bacteria grow, the media will start turning darker in color accompanied by turbidity or biomass.
2. Record the number of positive vials.

- Disposal:

How should we dispose of Biotechnology Solutions' microbiological media waste?

All of BTS bacterial growth media products are considered to be non-hazardous materials. Media vials may be discarded according to your local, state and federal regulations. To find out more about these regulations please refer to the environmental, health and safety staff at your facility.

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