Serial Dilution Instructions (SOB)
FOR DETECTION OF SULFUR OXIDIZING BACTERIA

- Product Description:

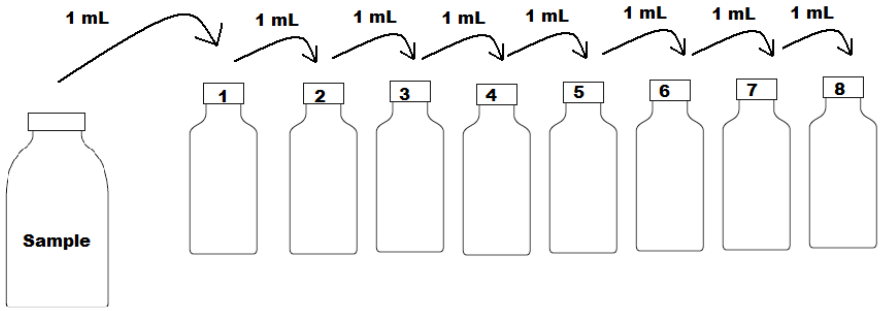
1. Product tested and developed by Biotechnology Solutions LLC.
2. Sulfur Oxidizing Media is developed to provide the necessary nutrients and ideal conditions to certain species of Sulfur Oxidizing Bacteria.
3. **Physical Characteristics**: Light purple in Color
4. **Chemistry**: Contains thiosulfates, inorganic salts, and a pH indicator.
5. **Detection**: Used for the detection and enumeration of certain species of Sulfur Oxidizing Bacteria.

- 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:
sales@biosolns.com or (281) 531-5319
10516 Kipp Way Dr. Ste. B
Houston, TX. 77099

- 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. Make sure to note changes in the vial upon inoculation that may cause a **False Positive**.
    3. If the vials turn light yellow immediately upon injection, the color change is due to the significantly low pH of the sample fluids, not biological activity. If Sulfur Oxidizing Bacteria are present in the vial, elemental sulfur or sulfur-containing compounds will begin to precipitate (yellow to white salts). We also recommend keeping one sterile vial as a control to compare the number of precipitants you may have in all vials. The best way to be certain about the presence of Sulfur Oxidizing Bacteria is to monitor the color change from its original color (light to purple) to any other color, each day for a period of 2 to 4 weeks.
    4. 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.
    5. Repeat this process for all the remaining dilution vials (#3 - #6).
    6. Incubate the vials at the temperature at around 28°C (± 2°C). The incubation period could go from 1 week to 4 weeks.

- Reading:

    1. **Indicator for (SOB)**: Most Sulfur Oxidizing Bacteria will drop the pH of the media causing a color change from light purple to light gray, green, or yellow. The color change must also be accompanied by an increase in the amount of precipitants (white to yellow) at the bottom of the vial.

- 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.

For additional information, please contact us at:
sales@biosolns.com or (281) 531-5319
10516 Kipp Way Dr. Ste. B
Houston, TX. 77099