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## Schaedler Blood Agar OxyPlate™ Product Insert

Each Schaedler OxyPlate™ creates and maintains an anaerobic environment without the need for chambers, bags, or jars. This simplifies working with anaerobes.

OxyPlates™ are made PRAS (Pre-Reduced Anaerobically Sterilized) with our Oxyrase® Enzyme System and unique OxyDish™ plate design. The OxyDish™ is specially designed to create a seal that maintains anaerobiosis. A silicone OxyPad is provided and is used to facilitate opening and closing the OxyPlate. OxyDish™ has a track on the outside of the base and keys inside the lid that ride on that track. The open (vented) position is considered the highest point of the lid as it sits on the rails. The closed position (sealed) is considered the lowest point the lid as it sits on the rails.

### Precautions:

Schaedler OxyPlates™ plates are for In-Vitro Use only. OxyPlates™ are packaged aseptically and must be handled aseptically to maintain sterility during use. A Safety Data Sheet is available on our website.

### Product Characteristics:

Schaedler medium, with blood, vitamin K1, and hemin, is an enriched, general purpose medium useful for the isolation of anaerobes (1,2,3). Vitamin K1 and hemin provide nutrients for some strains of the pigmented Bacteroides group and enhances the growth of some Bacteroides sp. and some gram-positive, non-spore forming anaerobes (4,6). Defibrinated sheep blood provides additional nutrients and enables the demonstration of hemolytic reactions. The Oxyrase® Enzyme System used in the OxyPlate™ provides a reduced medium before sterilization and maintains the medium in a reduce state for storage and during use. The Oxyrase® Enzyme System prevents the formation of undesirable oxidation products in these PRAS plates. The unique OxyDish™ design maintains anaerobiosis within the sealed plate (5). OxyPlates™ can be opened and closed several times and will regenerate and maintain anaerobic conditions.

### Media Formulation (grams / liter)

Initial pH: 7.3 (+/- 0.2)

|                                    |                           |
|------------------------------------|---------------------------|
| Enzymatic Digest of Casein         | 2.5 g                     |
| Enzymatic Digest of Animal Tissue  | 2.5 g                     |
| Tryptic Soy Broth                  | 10.0 g                    |
| Yeast Extract                      | 5.0 g                     |
| Dextrose                           | 5.0 g                     |
| Tris (hydroxymethyl) Amino Methane | 3.0 g                     |
| L-Cysteine                         | 0.3 g                     |
| Agar                               | 13.5 g                    |
| Hemin                              | 10.0 mg                   |
| Vitamin K1                         | 1.0 mg                    |
| Sheep Blood                        | 35.0 mL                   |
| Deionized water                    | (made up to final volume) |
| Oxyrase® Enzyme System             | - proprietary -           |

This formula is typical. Production lots may be adjusted, to offset variances in raw materials in order to meet performance criteria.

### Limitations:

1. J.F. MacFaddin. 1986. Media for Isolation, Cultivation, Identification, Maintenance of Medical Bacteria. *J. Basic Microbiology*. **26**(4): 240.
2. Phillips, E., and P. Nash. 1985. Culture Media. *Manual of Clinical Microbiology*. **4**: 1051-1092.
3. Sutter, V.L., Citron, D.M., Edelstein, M.A.C., and Finegold, S.M. 1985, 4<sup>th</sup> ed. Wadsworth Anaerobic Bacteriology Manual. Star Publishing Co., Belmont, CA. pgs.: 85-89.
4. Allen, S.D., Siders, T.A., and Marler, J.M. 1985. Isolation and Examination of Anaerobic Bacteria. *Manual of Clinical Microbiology*. **4**: 413-433.
5. Adler, H.I., Crow, W.D., Hadden, C.T., Hall, J., and Machanoff, R. 1983. New Techniques for Growing Anaerobic Bacteria. *Biotechnol. Bioeng. Symp.* **13**: 153-161.
6. Gibbons, R.J., and MacDonald, J.B. 1960. Hemin and Vitamin K Compounds as Required Factors for the Cultivation of Certain Strains of *Bacteroides melaninogenicus*. *J. Bacteriol.* **80**:164-170.

OxyPlates™ growth of strict and facultative anaerobes. Additional testing may be needed to further identify microorganisms grown on the OxyPlate™.

The Oxyrase® Enzyme System contains a penicillin binding protein that may interfere with penicillin and some related antibiotics.

### Handling and Storage Instructions:

Schaedler OxyPlates™ plates will arrive at room temperature. The following storage options are listed below:

1. Long Term Storage: Store the product at 2°C to 8°C. The expiration date is 14 weeks from the date of manufacture.

### Instructions for Use: (refer to OxyPlate™ Product Insert for information)

Before use, warm Schaedler OxyPlates™ to room temperature. Remove the plate from the protective pouch, and handle OxyPlate™ from the sides to prevent damaging of the anaerobic seal. Examine plates for contamination, evidence of oxidation / discoloration (i.e. plate is brown, instead of dark red), and the expiration date.

When streaking or inoculating the surface of an OxyPlate™, microorganisms deposited in the ring impression may grow and spread under the ring when the dish is sealed. Thus, control of streaking technique is at the discretion of the end-user.

After inoculation is complete, invert plates and incubate in an aerobic environment. **Do not** stack traditional petri-dishes on top of OxyPlates™, as anaerobic seal damage may occur. Use an appropriate indicator (such as OxyBlue™) inside the plate to test / confirm anaerobiosis.

### Quality Control:

Oxyrase, Inc. certifies that samples of each lot were quality control tested and performed acceptably according to Oxyrase, Inc.'s specifications, which include Clinical and Laboratory Standards Institute (M22-A3: Quality Assurance for Commercially Prepared Microbiological Culture Media). The following tests were confirmed:

| Organism          | ATCC # | Results                                 |
|-------------------|--------|---|
| B. fragilis       | 25285  | growth in 2-3 days                      |
| C. perfringens    | 13124  | growth in 2-3 days; hemolysis           |
| F. nucleatum      | 25586  | growth in 2-3 days                      |
| P. levii          | 29147  | growth in 2-3 days; brown/black pigment |
| P. anaerobius     | 27337  | growth in 2-3 days                      |
| P. mirabilis      | 12453  | growth in 2-3 days; no swarming         |
| P. melaninogenica | 25586  | growth in 2-3 days; no swarming         |

### Guarantee:

We guarantee 30 days of refrigerated shelf-life from shipment date. If a longer shelf-life is needed, this should be arranged at the time your order is placed. If Schaedler OxyPlates™ fail to arrive with at least a 4 week shelf life, are contaminated and or oxidized, or fail when used as specified, Oxyrase, Inc. will refund your purchase price. To receive a product refund, write or call Oxyrase Inc. with the product lot number found on the plate in question (a return of defective product may be required for further investigation and evaluation). Oxyrase, Inc. is available to answer any questions about this product and its applications.

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