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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. 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 of 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. Vitamin K1 and hemin provide nutrients for some strains of the pigmenting *Prevotella* and *Porphyromonas* group and enhances the growth of some *Bacteroides spp.* and some gram-positive, non-spore-forming anaerobes. Defibrinated sheep blood provides additional nutrients and enables the demonstration of hemolytic reactions. The Oxyrase® Enzyme System used in the OxyPlate™ maintains the medium in a reduced 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. 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
L-Cysteine	0.6 g
Agar	15.0 g
Hemin	10.0 mg
Vitamin K1	5.0 mg
Sodium Bisulfite	0.1 g
Na ₂ HKPO ₄	2.0 g
NaH ₂ PO ₄	1.15 g
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:

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.

Store the product at 2°C to 8°C. The expiration date is 3 months from the date of manufacture.

Instructions for Use:

OxyPlates™ should be stored in an open position. Simply remove the plate from the bag and use. If OxyPlate™ is closed, open the plate as follows:

1. Place the closed OxyPlate™ onto the work surface in the upright position
2. Grasp the lid of the plate with your thumb and finger
3. Put light, downward pressure on the plate while turning it counterclockwise
4. Lift the lid from the base.
5. Streak the plate.

To close the OxyPlate™:

1. Place open OxyPlate™ on the work surface in the upright position
2. Grasp the lid between your thumb and finger.
3. Put light, downward pressure on the plate, while turning it clockwise
4. The ring in the lid contacts the agar surface and forms a seal to close the plate.
5. Incubate the closed OxyPlate™ within a 5-10% CO₂ environment, in an inverted position (base up – lid down).

Alternatively, some microbiologists may find they can open-close OxyDish™ with gloved hands. Simply hold the base in place with gloved fingers while turning the lid counterclockwise to open or clockwise to close the dish.

Before use, warm Schaedler OxyPlates™ to room temperature. Remove the plate from the protective pouch, and handle OxyPlate™ from the sides to prevent damage to 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, breaking the seal. 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, swarming inhibited
P. melanigenica	25845	growth in 2-3 days

Guarantee:

We guarantee 28 days 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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ATCC is a trademark of the American Type Culture Collection

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, 4th ed. Wadsworth Anaerobic Bacteriology Manual. Star Publishing Co., Belmont, CA. pg. 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.