

Instructions for Use

POTASSIUM HYDROXIDE (KOH) SOLUTIONS

Cat. no. Z77	10% Potassium Hydroxide Solution	15ml
Cat. no. Z78	20% Potassium Hydroxide Solution	15ml
Cat. no. Z178	SoluPhyte™	5ml

INTENDED USE

Hardy Diagnostics Potassium Hydroxide (KOH) and SoluPhyte™ Solutions are recommended for use in slide preparations of specimens for the purpose of identifying fungal elements.

SUMMARY

Potassium Hydroxide (KOH) and SoluPhyte™ Solutions are used in a rapid method for distinguishing fungal elements in microscopic preparations. KOH and SoluPhyte™ Solutions are useful when examining mucoid specimens or material containing keratin, such as skin, scales, nails, or hair. KOH digests mucous and keratin, clearing the background and making fungal elements more visible.

In SoluPhyte™, the addition of dimethyl sulfoxide (DMSO) causes rapid clearing of keratin (keratolysis), allowing almost immediate examination of specimens, without the need for heating the slide.

REAGENT FORMULA

10% Potassium Hydroxide Solution	
Potassium Hydroxide	100.0gm
Deionized Water	1000.0ml

20% Potassium Hydroxide Solution	
Potassium Hydroxide	200.0gm
Deionized Water	1000.0ml

SoluPhyte™	
Potassium Hydroxide	200.0gm
Dimethyl Sulfoxide (DMSO)	400.0ml

STORAGE AND SHELF LIFE

Storage: Upon receipt store at 15-30°C. Products should not be used if there are any signs of contamination, deterioration, or if the expiration date has passed.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual Universal Precautions for blood. Do not ingest, inhale, or allow to come into contact with skin.

This product is for *in vitro* diagnostic use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

PROCEDURE

Specimen Collection: Samples should be collected using sterilized equipment and aseptic technique to minimize contamination. For more information, see appropriate references.⁽⁴⁻⁸⁾

Method of Use: Place a drop of Potassium Hydroxide (KOH) or SoluPhyte™ Solution in the center of a clean slide. Mix a portion of the specimen in the drop of solution. Cover with a coverslip and press gently to make a thin mount. If using Potassium Hydroxide (KOH) Solution, gentle warming may aid in clearing the mount. Heating is not necessary if using SoluPhyte™.

INTERPRETATION OF RESULTS

Examine the preparation under low and high dry magnification for the presence of characteristic mycelia and fruiting structures. Consult appropriate references for diagnostic features of fungi isolated in clinical and non-clinical specimens.

LIMITATIONS

Potassium Hydroxide Solutions and SoluPhyte™ are useful in the recognition and presumptive identification of fungi. Additional characteristics including colony morphology and biochemical tests should be used where appropriate for final identification. For further information, consult appropriate references.⁽⁴⁻⁸⁾

Prolonged exposure of a mold to KOH may result in distortion of the fungal elements.

The slide preparation should be stored in a moist chamber prior to reading to avoid drying.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, other culture media, swabs, applicator sticks, glass slides, coverslips, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

USER QUALITY CONTROL

Examine routinely for contamination, deterioration or discoloration.

PHYSICAL APPEARANCE

10% Potassium Hydroxide Solution, 20% Potassium Hydroxide Solution and SoluPhyte™ should appear clear and colorless.

REFERENCES

1. Versalovic, J., et al. *Manual of Clinical Microbiology*. American Society for Microbiology, Washington, D.C.
2. Tille, P., et al. *Bailey and Scott's Diagnostic Microbiology*, C.V. Mosby Company, St. Louis, MO.
3. Anderson, N.L., et al. *Cumitech 3B; Quality Systems in the Clinical Microbiology Laboratory*, Coordinating ed., A.S. Weissfeld. American Society for Microbiology, Washington, D.C.
4. *Cumitech 11: Practical Methods for Culture and Identification of Fungi in the Clinical Microbiology Laboratory*. 1980. American Society for Microbiology, Washington, D.C.
5. Isenberg, H.D. *Clinical Microbiology Procedures Handbook*, Vol. I, II & III. American Society for Microbiology, Washington, D.C.
6. Koneman, E.W., et al. *Color Atlas and Textbook of Diagnostic Microbiology*, J.B. Lippincott Company, Philadelphia, PA.
7. Kwon-Chung, K.J. and J.E. Bennett. 1992. *Medical Mycology*. Lea and Febiger, Malvern, PA.
8. Larone, D.H. *Medically Important Fungi: A Guide to Identification*, American Society for Microbiology, Washington, D.C.

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