remel

5% OXALIC ACID

INTENDED USE
Remel 5% Oxalic Acid is recommended for use in qualitative procedures for digestion and decontamination of clinical specimens prior to inoculation of media for isolation of *Mycobacterium* species.

SUMMARY AND EXPLANATION
The majority of clinical specimens submitted to the microbiology laboratory for isolation of acid-fast bacilli are contaminated with more rapidly growing commensal microbial flora.[1] Also, acid-fast bacilli may be trapped in respiratory secretions and not released for culture without liquefaction of the specimen.[2] In 1930, Corper and Uyei described an oxalic acid procedure for digestion and decontamination of clinical specimens prior to inoculation of media.[3] They reported growth of acid-fast bacilli on a variety of media following the use of this reagent.

PRINCIPLE
Oxalic Acid (5%) serves as a decontaminating agent due to its high acid content. It also acts as a liquefying agent to release the mycobacterial cells from mucin in the respiratory specimen. It is especially useful in specimens contaminated with *Pseudomonas* spp.[2]

REAGENT (CLASSICAL FORMULA)*
Oxalic Acid (CAS 6153-56-6) ..... 50.0 g
Demineralized Water (CAS 7732-18-5) ..... 1000.0 ml

*Adjusted as required to meet performance standards.

PRECAUTIONS
CAUTION! May cause irritation to skin, eyes, and respiratory tract. Avoid breathing vapor and contact with eyes or skin.

This product is for *In Vitro* diagnostic use and should be used by properly trained individuals. Precautions should be taken against the dangers of microbiological hazards by properly sterilizing specimens, containers, and media after use. Directions should be read and followed carefully. Refer to Material Safety Data Sheet for additional information.

STORAGE
This product is ready for use and no further preparation is necessary. Store product in its original container at room temperature until used.

PRODUCT DETERIORATION
This product should not be used if (1) the color has changed, (2) the expiration date has passed, or (3) there are other signs of deterioration.

SPECIMEN COLLECTION, STORAGE, TRANSPORT
Specimens should be collected and handled following recommended guidelines.[4-6]

MATERIALS REQUIRED BUT NOT SUPPLIED
(1) Loop sterilization device, (2) Inoculating loop, swabs, collection containers, (3) Incubators, alternative environmental systems, (4) Supplemental media, (5) Quality control organisms, (6) Mycobacteriological safety equipment, (7) Disinfectant, (8) 50 ml, sterile, graduated, plastic centrifuge tubes, (9) Pipettes, (10) TB Digestant (REF R21266), (11) Sterile physiological saline, (12) Phenol red indicator, (13) Sterile demineralized water, (14) Vortex mixer, centrifuge.

PROCEDURE
Follow established laboratory safety procedures when working with acid-fast cultures and specimens. Consult appropriate references when necessary for detailed procedural information on specimen processing, media inoculation, and identification of test isolates.[4-6]

1. Add an equal volume of 5% Oxalic Acid to 10 ml (or less) of specimen in a sterile centrifuge tube.
2. Vortex the tube for 30 seconds. Let stand at room temperature for 30 minutes with occasional shaking.
3. Add physiological saline to the 50 ml mark.
4. Recap the tube tightly and invert several times to mix the contents.
5. Place tube in an aerosol-free, sealed centrifuge cup. Centrifuge at ≥ 3000 x g for 15 to 20 minutes.
6. Pour off the supernatant into a splash-proof discard container filled with a suitable disinfectant. Do not allow the disinfectant to flow into the tube. Swab the lip of the tube with disinfectant and recap.
7. Add a few drops of phenol red indicator to the sediment. (Phenol red indicator may be prepared by dissolving 8 mg of phenol red powder in 20 ml of 4% Sodium Hydroxide. Add sufficient demineralized water to this mixture to make 1000 ml.)
8. Resuspend the sediment (pellet), adding a small amount of sterile saline if necessary, inoculate media, and make smears. Proceed with established laboratory procedure.

QUALITY CONTROL
All lot numbers of 5% Oxalic Acid have been tested and found to be acceptable. Testing of control organisms should be performed in accordance with the quality control procedures established by each laboratory following applicable regulatory agencies. If aberrant quality control results are noted, patient results should not be reported.

BIBLIOGRAPHY

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4. Murray, P.R., E.J. Baron, J.H. Jorgensen, M.L. Landry, and M.A. Pfaller. 2007. Manual of Clinical Microbiology. 9th ed. ASM Press, Washington, D.C.
5. Isenberg, H.D. 2004. Clinical Microbiology Procedures Handbook. 2nd ed. ASM Press, Washington, D.C.
6. Forbes, B.A., D.F. Sahm, and A.S. Weissfeld. 2007. Bailey and Scott's Diagnostic Microbiology. 12th ed. Mosby Elsevier, St. Louis, MO.

PACKAGING

REF R21285, 5% Oxalic Acid .....250 ml/Btl

Symbol Legend

REF	Catalog Number
IVD	In Vitro Diagnostic Medical Device
LAB	For Laboratory Use
	Consult Instructions for Use (IFU)
	Temperature Limitation (Storage Temp.)
LOT	Batch Code (Lot Number)
	Use By (Expiration Date)

CAS (Chemical Abstracts Service Registry No.)

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