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# BUFFERED WATER, APHA (PHOSPHATE BUFFER w/ MAGNESIUM CHLORIDE)

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## INTENDED USE

Remel Buffered Water, APHA (Phosphate Buffer w/ Magnesium Chloride) is a liquid medium recommended for use in qualitative procedures as a diluent in microbial limit testing of food and water.

## SUMMARY AND EXPLANATION

Phosphate Buffer (pH 7.2) was developed to provide a standardized medium for preparation of sample dilutions. It eliminates the variations in pH associated with distilled water. The formulation has been modified by the addition of magnesium chloride according to the recommendations of the American Public Health Association (APHA) for the microbiological examination of water and dairy products.<sup>1,2</sup>

## PRINCIPLE

Potassium dihydrogen phosphate provides buffering action. Magnesium chloride is included to improve the recovery of organisms with metabolic injuries which may have been induced by the toxic properties of the dilution water.

## REAGENTS (CLASSICAL FORMULA)\*

### Potassium Dihydrogen Phosphate Stock Solution:

Monopotassium Phosphate..... 34.0 g

Sodium Hydroxide, 1N..... 175.0 ml

Demineralized Water ..... 500.0 ml

### Magnesium Chloride Stock Solution:

Magnesium Chloride ..... 38.0 g

Demineralized Water ..... 1000.0 ml

### Buffered Water, APHA:

Potassium Dihydrogen Phosphate Stock Solution..... 1.25 ml

Magnesium Chloride Stock Solution ..... 5.0 ml

Demineralized Water ..... 1000.0 ml

\*Adjusted as required to meet performance standards.

## PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

## PROCEDURE

1. Consult appropriate references for the recommended procedure for sample dilution.

## QUALITY CONTROL

All lot numbers of Buffered Water, APHA (Phosphate Buffer w/ Magnesium Chloride) have been tested for microbial content and aesthetic value only, and have been found to be acceptable. To assure efficacy of the product, functional testing should be performed by the user in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

## BIBLIOGRAPHY

1. Eaton, A.D., L.S. Clesceri, E.W. Rice, and A.E. Greenberg. 2005. Standard Methods for the Examination of Water and Wastewater. 21<sup>st</sup> ed. APHA, Washington, D.C
2. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17<sup>th</sup> ed. APHA, Washington, D.C.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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