D/E NEUTRALIZING AGAR

INTENDED USE
Remel D/E Neutralizing Agar is a solid medium recommended for use in qualitative procedures for environmental sampling when the neutralization of chemical disinfectants is important to distinguish between bacteriostatic and bactericidal activity.

SUMMARY AND EXPLANATION
This medium was formulated by Engley and Dey in 1970 for the neutralization and testing of antiseptics and disinfectants.[1] It is recommended in the *Compendium of Methods for the Microbiological Examination of Foods* by the American Public Health Association (APHA) for environmental sampling.[2] The medium will neutralize a broad spectrum of antiseptic and disinfectant chemicals including mercurials, iodine and chlorine preparations, quaternary ammonium compounds, phenolics, formaldehydes, and glutaraldehydes.

PRINCIPLE
Peptone and yeast extract provide amino acids, peptides, nitrogenous compounds, and B-complex vitamins which are sources of nutrients necessary for growth. Dextrose is a carbon energy source. Lecithin neutralizes quaternary ammonium compounds. Polysorbate 80, a non-ionic surface active agent, neutralizes phenolics. Thioglycollate neutralizes mercurials, and sodium thiosulfate neutralizes iodine and chlorine preparations. Sodium bisulfite neutralizes formaldehyde and glutaraldehyde. The medium is highly opalescent, and growth is often indicated by a change in the pH indicator from purple to yellow showing utilization of dextrose. This medium is suited for environmental sampling, where neutralization of the chemical is important to determine its bactericidal activity. A bacteriostatic substance may contain bacteria held in bacteriostasis, but which may still be able to cause infection.

REAGENTS (CLASSICAL FORMULA)*

Dextrose	10.0	g	Sodium Bisulfite	2.5	g
Lecithin (Soybean)	7.0	g	Yeast Extract	2.5	g
Sodium Thiosulfate	6.0	g	Sodium Thioglycollate	1.0	g
Casein Peptone	5.0	g	Brom Cresol Purple	0.02	g
Polysorbate 80	5.0	g	Agar	15.0	g
			Demineralized Water	1000.0	ml

pH 8.0 ± 0.2 @ 25°C

*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.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 54 g of medium in 1000 ml of demineralized water.
2. Mix thoroughly.
3. Heat to boiling with agitation to completely dissolve.
4. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
5. Dispense into appropriate containers.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

Pour Tube: Melt the pour tube in a boiling water bath and cool to 45-50°C. Mix and dispense into a sterile contact plate or petri dish. Proceed with testing following established laboratory procedures.

QUALITY CONTROL
Each lot number of D/E Neutralizing Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures.

CONTROL	INCUBATION	RESULTS
Bacillus subtilis ATCC®6633	Aerobic, 18-24 h @ 33-37°C	Growth
Escherichia coli ATCC®25922	Aerobic, 18-24 h @ 33-37°C	Growth w/ yellow zone
Pseudomonas aeruginosa ATCC®27853	Aerobic, 18-24 h @ 33-37°c	Growth
Staphylococcus aureus ATCC®25923	Aerobic, 18-24 h @ 33-37°C	Growth w/ yellow zone

BIBLIOGRAPHY

1. Engley, F.B. and B.P. Dey. 1970. Chemical Specialties Manufacturing Association Proceedings.
2. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4th 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, specimen collection, storage and transportation, materials required, quality control, and limitations.

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