Easy Dry™ R2A

For enumerating heterotrophic organisms in water, according to the EP and APHA.

Instructions For Use
ENGLISH

DESCRIPTION

Liofilchem Easy Dry™ are absorbent pads impregnated with a sterile, dehydrated culture medium. Each pad is preplated in a Petri dish and is immediately ready to use after pouring sterile distilled or deionized water on it. Easy Dry™ are optimal for the examination of large sample volumes by the membrane filter method.

Easy Dry™ R2A is a low nutrient medium used for microbial monitoring of treated potable water.

This medium is recommended by the European Pharmacopoeia (EP) and the American Public Health Association (APHA) for examination of water.

TYPICAL FORMULA*	(g/l)
Yeast Extract	0.5
Proteose Peptone	0.5
Casein Hydrolysate	0.5
Glucose	0.5
Starch	0.5
Dipotassium Hydrogen Phosphate	0.3
Magnesium Sulfate Anhydrous	0.024
Sodium Pyruvate	0.3
Final pH 7.2 ± 0.2 at 25°C	

*Formula may be adjusted and/or supplemented as required to meet performance specifications;
Grams per litre of purified water.

METHOD PRINCIPLE

Yeast extract is a source of vitamins, particularly of B-group. Proteose peptone and casein hydrolysate provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Glucose is the fermentable carbohydrate. Starch aids in the recovery of injured organisms by absorbing toxic metabolic by-products. Dipotassium phosphate maintains the osmotic balance the medium. Magnesium sulfate is a source of divalent cations and sulfate. Sodium pyruvate increases the recovery of stressed cells.

PREPARATION

1. Cut open a bag and remove the number of Easy Dry plates needed.
2. Moisten the pad contained in the Petri dish with 2.2 ml of sterile distilled or deionized water.
3. Wait 5 minutes before using.

TEST PROCEDURE

Perform serial dilutions of the water sample in order to achieve a suitable colony count and prepare two sets of plates for each dilution.

Filter the sample trough a filter membrane (0.45 µm pore diameter). Transfer the membrane onto a plate containing a just rehydrated pad.

Incubate aerobically one set of plates at 30-35°C for 3-5 days and the other set at 20-25°C for 5-7 days.

NOTE: Incubation conditions may vary depending on the organisms under study. R2A stimulates the growth of stressed and chlorine-tolerant bacteria when used in combination with a lower incubation temperature and longer incubation period.

INTERPRETING RESULTS

Report the count as CFU/ml of sample allowing for dilution factors and report incubation time and temperature.

STORAGE

Store at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

2 years.

QUALITY CONTROL

Appearance of the Medium: Whitish pad.

Expected Cultural Response:

Control strain		Inoculum	Incubation	Specification
*Pseudomonas aeruginosa**	ATCC® 9027	≤100 CFU	up to 3 days 32.5 ± 2.5°C	Good growth (≥70% recovery)
*Bacillus subtilis**	ATCC® 6633			
Enterococcus faecalis	ATCC® 19433			
Escherichia coli	ATCC® 8739			
Staphylococcus aureus	ATCC® 6538			
Candida albicans	ATCC® 10231		5-7 days 22.5 ± 2.5°C	
Aspergillus brasiliensis	ATCC® 16404			

* Pharmacopoeia growth promotion test.

Please refer to the actual batch related Certificate of Analysis (CoA).

WARNING AND PRECAUTIONS

For professional use only. Operators must be trained and have certain experience in the laboratory methods. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

BIBLIOGRAPHY

1. European Pharmacopoeia 9th Edition (2017).
2. Clesceri, L.S., A.E. Greenberg, and A.D. Eaton (1998) Standard Methods for the Examination of Water and Wastewater. 20th ed. American Public Health Association, Washington, D.C.
3. Reasoner, D.J. and E.E. Geldreich (1985) Appl. Environ. Microbiol. 49:1-7.

Product	Packaging	Ref.
Easy Dry™ R2A	100 pads	85723

TABLE OF SYMBOLS

LOT Batch code	Keep away from sunlight	Manufacturer	Use by	Fragile, handle with care
REF Catalogue number	Temperature limitation	Contains sufficient for <n> tests	Caution, consult Instruction For Use	Do not reuse

This IFU document and the SDS are available from the online Support Center:
liofilchem.com/ifu-sds

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