Technical Data Sheet

AR2A001 R2A Agar

For heterotrophic plate count of treated potable water using longer incubation periods.

Composition	Ingredients Gms / Litre
Casamino acids	0.5
Yeast extract	0.5
Proteose peptone	0.5
D (+) Glucose anhydrous	0.5
Starch soluble	0.5
Di-potassium hydrogen phosphate	0.3
Magnesium sulfate	0.024
Sodium pyruvate	0.3
Agar – agar	15.0

Appearance:

Light yellow colour Sterile R2A Agar in 90 mm Petri Plates

pH (at 25°C):

7.2 ± 0.2

Principle:

R2A AGAR was formulated by Reasoner and Geldreich for heterotrophic plate count of treated potable water. It is recommended in standard methods for pour plate, spread plate, and membrane filter methods for heterotrophic plate counts. Nutritionally rich media support the growth of fast-growing bacteria which may suppress slow growing and/or stressed bacteria found in treated water. R2A agar being low in nutrition, stimulates the growth of stressed and chlorine-tolerant bacteria at lower incubation temperature and longer incubation period. Casamino acids, proteose peptone and yeast extract serve as carbon, nitrogen, vitamins, trace elements and minerals sources in the medium. D (+) Glucose anhydrous serves as a fermentable carbohydrate source. Soluble starch supports the recovery of injured organisms by absorbing toxic metabolic by-products. Di-potassium hydrogen phosphate is used to balance the pH. Magnesium sulphate is a source of divalent cations and sulphate. Sodium pyruvate increases the recovery of stressed cells. Agar is the solidifying agent. The test preparation dilutions for the heterotrophic plate count. Plate the test sample and dilutions by the spread plate or pour plate or membrane filter method. Do not exceed 1ml of sample or dilution per spread or pour plate. The volume of test sample to be filtered for the membrane filter technique will vary.

Quantity of Medium

30ml of medium in 90mm plates

Dose of Gamma irradiation

12 KGy

Cultural Response

Cultural characteristics observed by using standard ATCC cultures after an incubation for24 - 72 hours at 35-37°C

Sterility Test:

Passes release criteria.