

# TM 1137 – AEROMONAS STARCH DNA AGAR BASE

#### **INTENDED USE**

For selective isolation and enumeration of Aeromonas species from food and clinical samples.

### PRODUCT SUMMARY AND EXPLANATION

Aeromonas species occur widely in soil and water where these species cause disease in fish and amphibians. Also found in untreated and chlorinated drinking water, raw food and raw milk. It is observed that the major cause of gastrointestinal infections by Aeromonas species is because of ingesting infected water. It was noted that the recoveries of the Aeromonas species was very low from fresh foods of animal origin when cultivated on clinical media and difficulties were encountered in distinguishing the A. hydrophila group from the background microflora. Polumbo et al had formulated Starch Ampicillin Agar with starch hydrolysis as the differential trait and ampicillin to suppress the background microflora. Aeromonas Starch DNA Agar Base allows additional selective isolation of Aeromonas based on DNA hydrolysis.

### **COMPOSITION**

Ingredients	Gms / Ltr	
Peptone	15.000	
Soya peptone	5.000	
Sodium chloride	5.000	
Corn starch	10.000	
Deoxyribonucleic acid (DNA)	2.000	
Agar	15.000	

#### **PRINCIPLE**

Peptone and Soya Peptone provide essential nitrogen and carbon source, long chain amino acid, vitamins and other essential nutrients. Sodium chloride maintains osmotic equilibrium.

### **INSTRUCTION FOR USE**

- Dissolve 52.0 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Ampicillin Supplement.
- Mix well and pour into sterile Petri plates.

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

: Light yellow coloured clear to slightly opalescent gel forms in Petri plates. Appearance of prepared medium

: 7.5±0.2 pH (at 25°C)

# **INTERPRETATION**

Cultural characteristics observed after incubation.











Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aeromonas hydrophila	7966	50-100	Luxuriant	>=70%	35-37°C	24 Hours
Escherichia coli	25922	>=10 <sup>3</sup>	Inhibited	0%	35-37°C	24 Hours
Staphylococcus aureus subsp.aureus	25923	>=10 <sup>3</sup>	Inhibited	0%	35-37°C	24 Hours

#### **PACKAGING:**

In pack size of 500 gm bottles.

## **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

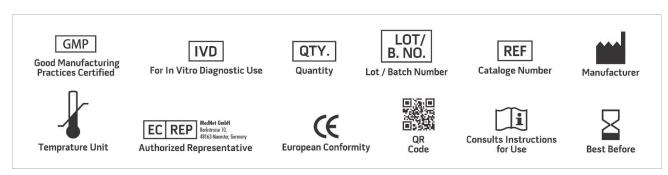
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

## **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

## **REFERENCES**

- 1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
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- 3. Burke V. et al 1984, Appl. Environ. Microbiol., 48:361.
- 4. Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
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- 6. George W. L., 1987, Clin. Microbiol., Newsletter 9, 121.
- 7. Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed., APHA, Washington, D.C.
- 8. Holmberg S. D., et al, 1986, Ann. Intern. Med., 105:683.
- 9. Polumbo,S.A., Maxino,F.,Williams,A.C.,Buchanam,R.L. and Thayer,D.W.1985, Starch Ampicillin Agar for Quantitative Detection of Aeromonas hydrophila, Appl.Environ.Microbiol, 50:1027.

















**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019







