TM 2274 – PARK & SANDER ENRICHMENT BROTH BASE (ISO/DIS 10272:1995)

INTENDED USE

For selective enumeration of thermo-tolerant *Campylobacter* species from food.

PRODUCT SUMMARY AND EXPLANATION

Park and Sanders Broth was formulated by Park and Sanders. Park and Sanders Broth Base is a slight modification of Park and Sanders Enrichment Broth recommended by APHA, for selective enumeration of thermotolerant *Campylobacter* species in food and animal feed. This medium is recommended by ISO.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Peptic digest of animal tissue	10.000
Yeast extract	2.000
Dextrose	1.000
Sodium citrate	1.000
Sodium chloride	5.000
Monohydrogen sodium sulphite	0.100
Sodium pyruvate	0.250

PRINCIPLE

The medium consists of Casein enzymic hydrolysate, peptic digest of animal tissue, yeast extract which provide nitrogenous compounds, carbon, sulphur, vitamins and trace elements. Glucose is the energy source. *Campylobacter* species are microaerophilic. Sodium pyruvate helps for aerotolerance. Sodium sulphite helps in survival of the organism in higher nitrogen atmosphere. Sodium citrate suppresses coliforms and gram-positive bacteria. Supplementation of base with antibacterial and antifungal agents as described by Park and Sanders provides for a markedly reduced growth of normal enteric bacteria and improved recovery of *Campylobacter* species.

INSTRUCTION FOR USE

- Dissolve 29.35 grams in 940 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45°C and aseptically add 50 ml of sterile defibrinated lysed horse blood and reconstituted contents of 1 vial of Park and Sanders Selective Supplement A. Mix well.
- Inoculate with food samples and incubate at 31 to 32°C (to recover injured cells) for 4 hours.
- Aseptically add reconstituted contents of 1 vial of Park and Sanders Selective Supplement B and incubate at 37°C for 2 hours, then at 42°C under a microaerobic atmosphere for additional 40 to 42 hours with agitation at 100 rpm.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to beige homogeneous free flowing powder.

Appearance of prepared medium : Basal medium - Light yellow coloured clear solution. After addition of 5% v/v sterile defibrinated lysed horse blood - Cherry red coloured opalescent solution in tubes.

pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed with added 5% defibrinated lysed horse blood along with Sanders Selective Supplement A and Sanders Selective Supplement B after incubation under microaerobic atmosphere.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Campylobacter coli	33559	50-100	Good	42°C	48 Hours
Campylobacter jejuni	29428	50-100	Good-Luxuriant	42°C	48 Hours
Escherichia coli	25922	>=10^3	Inhibited	42°C	48 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.

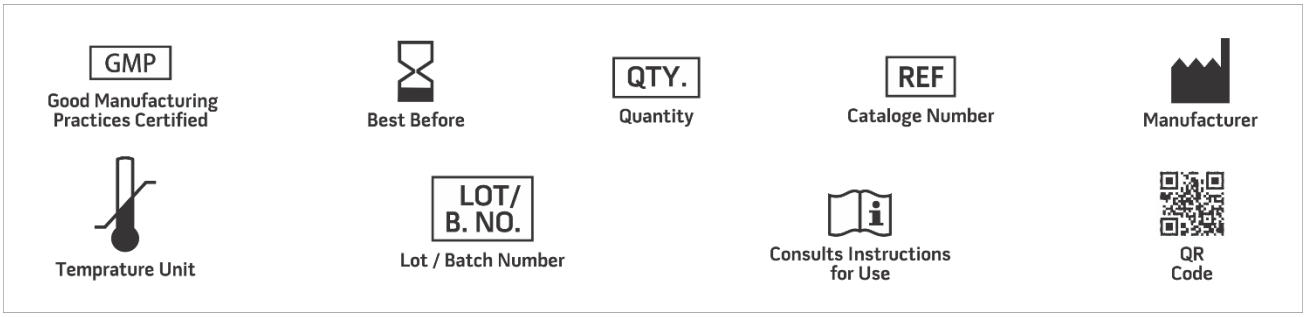
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Park C.E. and Sanders G.W., 1989, Abstr. 5th International Workshop on Campylobacter Infections, Puerto Vallarta, Mexico.
2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C
3. Koidis P. and Doyle M.P., 1983, Eur. J. Clin. Microbiol., 2:384.
4. Microbiology of food and animal feeding stuffs - Horizontal method for detection of thermotolerant Campylobacter, ISO 10272:1995



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 08 Nov., 2019