# Perfringens Agar Base

## Intended Use
Perfringens Agar Base is recommended for the enumeration of *Clostridium perfringens* from food in compliance with ISO 7937:1985.

## Summary
Perfringens Agar Base was originally formulated by Harmon *et al.,* for the enumeration of *C. perfringens* from food. It has been documented as one of the most useful media for the quantitative recovery of *C. perfringens* while suppressing growth of other facultative anaerobes. Perfringens Agar Base is also recommended by APHA. Perfringens Agar Base is recommended for enumeration of *C. perfringens* from foods by ISO Committee.

## Principle
Tryptose, papaic digest of soyabean meal, yeast extract, provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamin B complex and trace elements essential for clostridial growth. Sodium metabisulphite and ferric ammonium citrate act as an indicator of sulphite reduction, indicated by black coloured colonies.

## Formula*

| **Ingredients** | **g/L** |
|---|---|
| Tryptose | 15.0 |
| Papaic digest of soyabean meal | 5.0 |
| Yeast extract | 5.0 |
| Sodium metabisulphite | 1.0 |
| Ferric ammonium citrate | 1.0 |
| Agar | 15.0 |
| Final pH (at 25°C) | 7.6 ± 0.2 |

*Adjusted to suit performance parameters.

## Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2ºC-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

## Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

## Directions
1. Suspend 21.00 g of the powder in 475 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Cool to 50°C. Add 25 mL of Egg Yolk Emulsion (204050370100) and add rehydrated contents of one vial of T.S.C Supplement (204200770005). Alternatively, if fluorogenic detection is desired add rehydrated contents of Clostridium Perfringens Supplement.
5. Mix well before pouring into sterile petridishes.

## Quality Control

**Dehydrated Appearance**: Light yellow to brownish yellow coloured, homogenous, free flowing powder.
**Prepared Appearance**: Amber coloured, clear to slightly opalescent gel forms in petridishes.
**Cultural Response**: Cultural characteristics is observed under anaerobic condition with added TSC supplement /S.F.P Supplement or Clostridium Perfringens Supplement and Egg Yolk Emulsion, after an incubation at 35°C-37°C for 18-24 hours.

| Organisms (ATCC) | Growth | Sulphite Reducing | Fluorescence |
|---|---|---|---|
| *Clostridium perfringens* (12924) | Good | Positive blackening of medium | Positive reaction |
| *Clostridium sordellii* (9714) | inhibited | - | - |

## Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

## Precautions / Limitations

Some species of Clostridia may show poor growth. Pre-enrichment may be required.

## Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

## Reference


1. Harmon S. M., Kauttar D.A. and Peiler J. T., 1971, Appl. Microbiol., 22:688.
2. Harmon S. M. and Kautter D.A., 1987, J. Asso. Off. Anal. Chem., 70: 994.
3. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.


## Product Presentation:

| Cat No. | Product description | Pack Size |
|---|---|---|
| 201160040500 | Dehydrated Culture Media | 500 g |