

**SOYA CASEIN DIGEST MEDIUM (as per IP)**
**TM 419**

For cultivation of various microorganisms and sterility testing of molds

**Composition**

Ingredients	Gms/Ltr.
Pancreatic digest of casein	17.00
Sodium chloride	5.00
Soyatone (soya peptone)	3.00
Dextrose	2.50
Dipotassium phosphate	2.50

\* Dehydrated powder, hygroscopic in nature, store in a cool - dry place in tightly- sealed containers below 25°C and protect from direct sunlight.

**Instructions for use**

Dissolve 30gms in 1000 ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (at 121°C) for 15 minutes. Cool to 45-50°C before use.

**Appearance:** Light yellow colour, clear solution

**pH (at 25°C):** 7.3 ± 0.2

**Principle**

**SOYA CASEIN DIGEST MEDIUM (SCDM)** is used for cultivation of various microorganisms and sterility testing of molds. The medium is used for a multitude of purposes including maintenance of stock cultures, plate counting and isolation of microorganisms from a variety of specimen types and as a base for media containing blood. Pancreatic digest of casein and Soyatone supply the nitrogen and carbon source to the medium. Dextrose is a source of fermentable carbohydrates for energy production. Sodium chloride maintains the osmotic balance and Dipotassium phosphate provides buffering capacity in the medium. *Clostridia* sp. and non-sporulating anaerobes grow luxuriantly in this broth when incubated under anaerobic conditions. SCDM is also used for testing bacterial contaminants in cosmetics, also in the food industry, and used for detecting viable bacteria in live vaccines. SCDM is also used for inoculum preparation in disk diffusion sensitivity tests. The rich nutritional base of SCDM, supplemented with SPS and CO<sub>2</sub>, is an excellent broth for blood cultures in clinical applications.

The growth of the microorganisms tested (about 10<sup>3</sup> – 10<sup>5</sup>CFU/ml) shown to have positive and luxuriant colonies, after incubation period of 24 hours extended to 3- 5 days at 30°-35°C.

**# with the addition of 6.5% NaCl, medium can be used for the selective growth of group D *Streptococci* also.**

**Interpretation**

Culture characteristics observed after inoculating 10<sup>3</sup>-10<sup>5</sup> CFU/ml, for incubation period of 18 - 48 hours at 35 - 37°C (for Bacteria), and 25 ± 2°C (for Fungi).

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Bacillus subtilis</i>	6633	10 <sup>3</sup> -10 <sup>5</sup>	Good
<i>Escherichia coli</i>	25923	10 <sup>3</sup> -10 <sup>5</sup>	Good

## PRODUCT DATA SHEET

<i>Staphylococcus aureus</i>	25922	10 <sup>3</sup> -10 <sup>5</sup>	Good
<i>Salmonella typhimurium</i>	14028	10 <sup>3</sup> -10 <sup>5</sup>	Good
<i>Candida albicans</i>	10231	10 <sup>3</sup> -10 <sup>5</sup>	Good

### References

1. MacFaddin J. F., Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, (1985).
2. Williams & Wilkins, Baltimore, M.d. The United States Pharmacopeia, USP31/NF26, The United States Pharmacopeial Convention, Rockville, MD. (2008).
3. Indian Pharmacopoeia, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India. (2007).