



Examination for specific organisms: Standard plate count - AS 5013.1-2004

SCOPE

All foods (including raw meats and carcase rinses and swabs).

PRINCIPLES

Samples are prepared according to instructions for that product in the appropriate standards or meat notice. In general, for meat and meat products a 1:10 dilution is prepared in peptone salt solution (0.1%). Pour plates of appropriate decimal dilutions are prepared using plate count agar 1 and incubated aerobically at $30 \pm 1^\circ\text{C}$ for 72 ± 2 h, unless otherwise specified. Carcase sponges can be enumerated without further dilution.

▪ Pour Plates

Sample (1 ml) is dispensed into duplicate Petri dishes. About 12 to 15 ml of Plate Count Agar (45 to 47°C) is poured into each dish and the inoculum and media mixed by gently rotating the dishes. Once solidified the plates are inverted and incubated at 30°C for 72 h. Plates can be overlayed with agar (4 ml of 1.2 to 1.8% agar) if spreading colonies are likely to be present in the samples.

▪ Counting

All colonies are counted. Care should be taken to include very small colonies but exclude particulate matter or undissolved material.

¹ Plate Count Agar (AS 5013.5), enzymatic digest of casein, 5g; yeast extract, 2.5g; glucose, 1g; agar, 9-18g; water 1000ml

CHECKLIST

Inoculation	Is peptone salt solution used for preparation of samples and dilutions?	_____
	Are appropriate dilution used to ensure a counting range of 15 to 300?	_____
	Is Plate Count Agar stored for no more than 3-months at <3°C (alternate shelf-life must be validated)?	_____
	How is the shelf-life of prepared media controlled?	_____
	Is agar stabilised at 45 to 47°C prior to preparation of pour plates?	_____
	What volume of agar is used to prepare pour plates?	_____
	Are pour plates prepared correctly (check volume and mixing of sample)	_____
Incubation	What are the incubation conditions and period?	_____
	Are plates stored in stacks of <6?	_____
Interpretation	How are counts outside the countable range reported?	_____
	Is magnification used to aid in counting?	_____