

METHOD SUMMARY – QWI-FM0080



Method Title	Standard Plate Count in Poultry		
Document number	QWI-FM0080	Date Issued	7 th June 2019

Method External References	AS 5013.5-2016 Food microbiology - Microbiology of the food chain - Horizontal method for the enumeration of microorganisms – Colony count at 30 °C by the pour plate technique		
	AS 5013.11.1-2018 Food Microbiology - Microbiology of the food chain – Preparation of test samples, initial suspension and decimal dilutions for microbiological examination – General rules for the preparation of the initial suspension and decimal dilution		
	AS 5013.14.1-2010 Food Microbiology - Microbiology of food and animal feeding stuffs - General requirements for microbiological examinations		
	AS 5013.20-2017 Food Microbiology – Preparation of test samples for microbiological examination – Poultry and poultry product surfaces		
Matrix	Poultry or poultry products prepared or packed as individual units of any size (for example sausages, vacuum-packed minced poultry) or poultry in pieces not exceeding 2 kg in mass. Carcasses, or cuts of carcasses, in pieces exceeding 2 kg in mass, and mechanically separated poultry.		
ALS Department	<input type="checkbox"/> Pharmaceutical Chemistry <input type="checkbox"/> Water Microbiology <input checked="" type="checkbox"/> Food Microbiology <input type="checkbox"/> Pharmaceutical Microbiology <input type="checkbox"/> Food Chemistry		
Accreditation Status	<input checked="" type="checkbox"/> NATA <input type="checkbox"/> NON-NATA <input type="checkbox"/> N/A		
Analysis technique	<input type="checkbox"/> HPLC <input type="checkbox"/> GC <input type="checkbox"/> Wet Chemistry <input type="checkbox"/> Physical <input type="checkbox"/> Gravimetric <input type="checkbox"/> Qualitative <input checked="" type="checkbox"/> Pour Plate <input type="checkbox"/> Spread Plate <input type="checkbox"/> MPN <input type="checkbox"/> Filtration <input type="checkbox"/> Petrifilm <input type="checkbox"/> EHS <input type="checkbox"/> ELISA <input type="checkbox"/> VIDAS UP <input type="checkbox"/> VIDAS <input type="checkbox"/> Other (please specify): _____		
Method Scope	This method documents the procedure for the determination of the standard plate count (SPC) in poultry and poultry products (refer to matrix above). This test is based on the assumption that each cell will form a visible colony. It is not a measure of the entire bacterial population but is a generic test for organisms that grow aerobically at mesophilic temperatures.		
Method Principle	Poultry and poultry products are prepared by means of the rinse technique or by subsampling the product to be analysed. Two (2) poured plates are prepared using a specified culture medium and a specific quantity of the test sample, if the initial product is liquid (rinse liquid), or using a specified quantity of an initial suspension in the case of other products. Other pairs of poured plates are prepared, under the same conditions, using decimal dilutions of the test sample or of the initial suspension. Decimal dilutions of the poultry or poultry products being tested are		

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	<p>prepared and one (1) mL volumes are transferred to Petri dishes and then poured with Plate Count Agar. The plates are incubated aerobically at 30 ± 1 °C for 72 ± 3 hours.</p> <p>A count of colonies on each plate is then performed, the result being taken from the mean count of a number of plates, taking the dilution factor into account. The number of micro-organisms per g of sample is calculated from the number of colonies obtained on selected plates.</p>
Reporting Unit	Standard Plate Count cfu/g, cfu/bird or cfu/cm ²
LOR/LOQ	< 10

Minimum amount of sample required for analysis	500 g	Turnaround time	3 days
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