

METHOD SUMMARY – QWI-FM0011

Method Title	Standard Plate Count – Food & Dairy – Enumeration - AS		
Document number	QWI-FM0011	Date Issued	28 th March 2018

Method External References	<p>AS 5013.5 2016 Food microbiology - Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of microorganisms at 30 °C</p> <p>AS5013.11.1-2004 Food Microbiology - Microbiology Of Food And Animal Feeding Stuffs – Preparation Of Test Samples, Initial Suspension And Decimal Dilutions Of Microbiological Examination – General Rules For The Preparation Of The Initial Suspension And Decimal Dilution</p> <p>AS 5013.14.1-2010 Food Microbiology - Microbiology Of Food And Animal Feeding Stuffs - General Rules For Microbiological Examinations (Holding Temperature Of Media In Water Bath)</p> <p>AQIS Meat Notice - 2000/09, 2003/06</p>
Matrix	As listed on NATA Scope.
ALS Department	<input type="checkbox"/> Pharmaceutical Chemistry <input type="checkbox"/> Water Microbiology <input type="checkbox"/> Pharmaceutical Microbiology <input checked="" type="checkbox"/> Food 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"/> TEMPO
Method Principle	<p>This method documents the procedure for the determination of the standard plate count (SPC) in samples of foods, excluding meat and fish.</p> <p>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.</p> <p>This method is also used for the determination of the standard plate count in Carcass Sponges (as per AQIS requirements). Food samples must be processed rapidly in order to ensure optimum isolation due to its sensitivity to many environmental conditions.</p> <p>Poured plates are prepared using a specified culture medium and a specific quantity of the test sample, if the initial product is liquid, or using a specified quantity of an initial suspension in the case of other products. Other dilutions are prepared, under the same</p>

	<p>conditions, using decimal dilutions of the test sample or of the initial suspension.</p> <p>Decimal dilutions of the food being tested are prepared and 1mL volumes are transferred to petri dishes and then poured with Plate Count Agar or Plate count agar with skim milk for dairy products. The plates are incubated aerobically at 30 °C for 72 ± 2 hours. A count of colonies on each plate is then performed. The result is calculated by multiplying the count from the plate by the dilution factor. The number of micro-organisms is recorded per mL or per g of sample</p>
Reporting Unit	Determination of SPC cfu/g or cfu/mL
LOR/LOQ	<10 cfu/g

Minimum amount of sample required for analysis	20 g	Turnaround time	3 days
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Author:	Document Controller	Date:	19 th April 2018
Authorised By:	National Quality Manager	Date:	19 th April 2018

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