

## METHOD SUMMARY – QWI-FM0053

<b>Method Title</b>	Mesophilic Aerobic Spore		
<b>Document number</b>	<b>QWI-FM0053</b>	<b>Date Issued</b>	20 <sup>th</sup> September 2016

<b>Method External References</b>	APHA: Compendium of Methods for the Microbiological Examination of Foods 4th edition		
	AS1095.3.7-1979: Methods of microbiological examination of dairy products and for dairy purposes, Part 3, Section 7 Bacterial spores		
	AS 5013.11.1-2004: 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		
	AS 5013.14-2004: Food Microbiology - Microbiology of food and animal feeding stuffs - General rules for microbiological examinations		
<b>Matrix</b>	As listed on NATA Scope.		
<b>ALS Department</b>	<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		
<b>Accreditation Status</b>	<input checked="" type="checkbox"/> NATA <input type="checkbox"/> NON-NATA <input type="checkbox"/> N/A		
<b>Analysis technique</b>	<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		
<b>Method Principle</b>	<p>This method describes a procedure for the enumeration of mesophilic aerobic spore-forming bacteria in food. Members of the mesophilic aerobic spore formers of significance in the spoilage of food belong to the genera <i>Bacillus</i> and <i>Sporolactobacillus</i>. Of these <i>Bacillus</i>, is of greater significance.</p> <p>A food sample is prepared for analysis. 10 mL of the initial suspension is heat treated at 80 ± 2 °C for 10 minutes in a Schott Bottle or test tube. It is then cooled down to 10 °C prior to being plated out. 1 mL of sample is dispensed into sterile Petri dishes which are then poured with Starch Nutrient Agar (SNA). Decimal dilutions are performed if required. Plates are incubated at 30 ± 1 °C for 72 ± 2 hours. Colonies are counted and reported as Mesophilic aerobic spores per mL or per g of the test sample.</p>		
<b>Reporting Unit</b>	Mesophilic Aerobic Spores CFU/g or CFU/mL		
<b>LOR/LOQ</b>	<10		

<b>Minimum amount of sample required for analysis</b>	10 g or 10 mL	<b>Turnaround time</b>	3 days
---	---------------	------------------------	--------

---

<b>Author:</b>	Document Controller	<b>Date:</b>	5 <sup>th</sup> December 2017
<b>Authorised By:</b>	National Quality Manager	<b>Date</b>	5 <sup>th</sup> December 2017

CONFIDENTIAL