

METHOD SUMMARY – QWI-FM0050



Method Title	Rope Spore Formers – Enumeration		
Document number	QWI-FM0050	Date Issued	18 th October 2019

Method External References	APHA Based on Compendium of Methods for the Microbiological Examination of Foods 4th edition Chapter 22 AS 5013.11.1-2018. Food Microbiology - Microbiology of the food chain – 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 5013.14.1-2010. Food Microbiology - Microbiology of food and animal feeding stuffs - General requirements and guidance for microbiological examinations		
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"/> Other (please specify): _____		
Method Scope	This method describes a procedure for the enumeration of rope spores which cause a strong odour of decomposed or overripe watermelons in bread. Mucoid variations of <i>Bacillus subtilis</i> are considered responsible for “ropy” bread, spoilage by virtue of endospore resistance to temperatures reached in the centre of loaves where the usual water activity (aw) is about 0.95.		
Method Principle	A food sample is prepared for analysis. The initial suspension is boiled for 5 minutes in a Schott Bottle. It is then left at 94-100 °C for a further 15 minutes and subsequently cooled under running tap water or ice bath. Decimal dilutions are performed if required. Plates are poured with Dextrose Tryptone Agar (DTA) and are incubated at 37 ± 1 °C for 44 to 48 hours. Typical colonies are then confirmed using characterisation tests and the number of Rope Spore Formers is calculated per mL or per g of the test sample from the number of confirmed typical colonies per dish.		
Reporting Unit	Determination of Rope Spore Formers cfu/g or cfu/mL		
LOR/LOQ	<10 cfu/g or cfu/mL		

Minimum amount of sample required for analysis	20 g	Turnaround time	2 days
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