

## METHOD SUMMARY – QWI-FM0029

<b>Method Title</b>	Clostridium perfringens Enumeration - AS		
<b>Document number</b>	<b>QWI-FM0029</b>	<b>Date Issued</b>	20 <sup>th</sup> June 2017

Method External References	AS 5013.16 – 2006 - Food and animal feeding stuffs – Horizontal method for the enumeration of <i>Clostridium perfringens</i> - Colony Count technique		
Matrix	As listed on NATA Scope.		
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"/> TEMPO		
Method Principle	<p>This method documents the procedure for the enumeration of viable <i>Clostridium perfringens</i> in products intended for human consumption feeding of animals, and hygiene swabs within the area of food production and food handling.</p> <p>Food samples must be processed rapidly in order to ensure optimum isolation due to the sensitivity of <i>C. perfringens</i> to many environmental conditions.</p> <p>Petri dishes are inoculated with a specified quantity of the test sample if the initial product is liquid, or a specified quantity of the initial suspension in the case of other products.</p> <p>Further Petri dishes are inoculated, under the same conditions, using serial dilutions of the test sample or of the initial suspension. A selective medium is poured into the petri dishes. Once agar is dry, plates are overlayed with the same medium.</p> <p>The plates are incubated anaerobically at 37 °C for 20 ± 2 hours. The characteristic colonies are enumerated. The numbers of characteristic colonies are confirmed and the number of <i>Clostridium perfringens</i> per millilitre (mL) or per gram (g) of sample is calculated. Counts are reported CFU/g or CFU/mL of sample or CFU/swab.</p>		
Reporting Unit	Determination of Clostridium perfringens cfu/g or cfu/mL		
LOR/LOQ	<10 cfu/g or cfu/mL or cfu/swab		

Minimum amount of sample required for analysis	20 g	Turnaround time	24 hours
<b>Author:</b>	Document Controller	<b>Date:</b>	30 <sup>th</sup> November 2017
<b>Authorised By:</b>	National Quality Manager	<b>Date:</b>	30 <sup>th</sup> November 2017