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SATRA reference: CHM0233424/1512/  
DRWM/SMcD/A –  
Issue 2

Your reference:

Date of report: 1<sup>st</sup> October 2015

For the attention of: Nurul Huda

Samples received: 20<sup>th</sup> March 2015

## TECHNICAL REPORT

Subject:

Overall migration testing in accordance with BS EN 1186 and EU regulations 10/2011 on glove samples described as powder free nitrile examination glove (3 mil)

Issue 2 – This report replaces CHM0233424/1512/DRWM/A dated 9<sup>th</sup> April 2015

### Conditions of Issue:

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The uncertainty of the results in this report is based on a standard uncertainty multiplied by a coverage factor  $k=2$ , which provides for a confidence level of approximately 95%

Report signed by: S McDonald  
Position: Chemical Technologist  
Department: Chemical & Analytical Technology

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## WORK REQUESTED:

Samples of gloves described as powder free nitrile examination glove (3 mil) were received on the 23<sup>rd</sup> March 2015 for assessment in accordance with the overall migration limit requirements of Commission Regulation No. 10/2011.

## CONCLUSIONS:

When tested in accordance with BS EN 1186-7: 2002 the samples described as powder free nitrile examination gloves (3 mil) was found to meet with the overall migration limit requirements when assessed against 10% Ethanol and 3% Acetic acid for 2 hours at 40°C.

Results are given in the following tables.

## TESTING REQUIRED:

- BS EN 1186 part 7: 2002 Materials and articles in contact with foodstuffs – Plastics Test methods for overall migration into aqueous food simulants using a pouch for 2 hours at 40°C.
  - 10% Ethanol (simulant A Commission Regulation No. 10/2011)
  - 3% Acetic Acid (simulant B in Commission Regulation No. 10/2011)

## RESULTS AND REQUIREMENTS:

### Migration into aqueous food simulants using a pouch

#### Pouch Method

The gloves were assessed by reversing the gloves to form a pouch and filling with each simulant. The surface area of each glove was calculated by determining the density of the glove, weighing the part of the glove that was in contact with the simulant and calculating the area assuming a homogeneous material.

Sample	Test Method	Global migration (mg/dm <sup>2</sup> )		Mean Global migration (mg/dm <sup>2</sup> )	Pass/Fail
		A	B		
Powder free examination glove (3 mil)	EN 1186-7 (10% Ethanol)	A	1.6	2.2	Pass
		B	1.6		
		C	3.4		
	EN 1186-7 (3% Acetic acid)	A	2.9	3.4	Pass
		B	2.4		
		C	4.9		
<b>Requirement</b>	-	-	-	<b>&lt;10 mg/dm<sup>2</sup></b>	-

## APPENDICES:

The samples described as powder free nitrile examination glove (3 mil) are suitable for contact with the following food categories of foodstuffs as listed in 10/2011 Annex III, table 2.

Reference number	Description of foodstuffs
03	<b>Chocolate, sugar and products thereof Confectionary products</b>
03.03	Sugar and sugar products B. Molasses, sugar syrups, honey and the like
04	<b>Fruit, vegetables and products thereof</b>
04.01	Whole fruit, fresh or chilled, unpeeled
04.04	Whole vegetables, fresh or chilled
04.05	Processed vegetables: B. Fresh vegetables, peeled or cut
06	<b>Animal products and eggs</b>
06.02	Crustaceans and molluscs (including oysters, mussels, snails): A. Fresh within the shell
08	<b>Miscellaneous Products</b>
08.01	Vinegar

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Issue Date: 1st October 2009