

## NF VALIDATION

### Validation of alternative analysis methods

### Application to the food industry

Summary report  
according to the standard EN ISO 16140-2:2016

Qualitative method

***Salmonella* Precis**  
**Certificate # UNI 03/06-12/07**  
**for the detection of *Salmonella* spp in food products,  
feed products and environmental samples**

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This report contains 136 pages, including 86 pages of appendices.  
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## Preamble

- **Protocols of validation:**

- **EN ISO 16140-1 and NF EN ISO 16140-2 (September 2016): Microbiology of the food chain**  
— Method validation  
Part 1: Vocabulary.  
Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.
- **Requirements regarding comparison and interlaboratory studies for implementation of the standard EN ISO 16140-2 (version 6).**

- **Reference method:**

- **EN ISO 6579-1 (April 2017):** Microbiology of the food chain – Horizontal method for the detection, enumeration and serotyping of *Salmonella*- Part 1: Detection of *Salmonella* spp.
- **EN ISO 6579-1/A1 (March 2020):** Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* - Part 1: detection of *Salmonella* spp. – Amendment 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSRV and SC.

- **Application scope:**

- **All human food products** by a validation testing of a broad range of foods,
- **Animal Feed and pet food products,**
- **Environmental samples.**

Detailed application scope below:

Scope	Broad range of foods, animal feed, environmental samples		
Protocols	Standard protocol with BPW supplemented with novobiocin	Standard protocol with One Broth Salmonella	Specific protocols for large test portions
Tested categories during the ISO 16140-2:2016 study	Meat products Milks and Dairy products Seafood products Vegetables Specific ingredients Environmental samples <i>Note that the specific protocols also cover 25 g test portions for (i) Animal feed and pet food products, (ii) Cocoa &amp; chocolate products</i>	Meat products Dairy products Seafood and vegetables Specific ingredients and foods Ready-to-eat & ready-to-reheat products Animal feed and pet food products Environmental samples	Animal feed and pet food products (up to 150 g) Milk powders, infant formula, infant cereals and related ingredients (from 50 g to 375 g) Cocoa & chocolate products (up to 375 g)

- **Certification body:**

- **AFNOR Certification (<https://nf-validation.afnor.org/>).**

## Definitions

- **Method comparison study**

The method comparison study is the part of the validation process that is performed in the organizing laboratory. It consists of three parts namely the following:

- A comparative study of the results of the reference method to the results of the alternative method in (naturally and/or artificially) contaminated samples (so-called sensitivity study);
- A comparative study to determine the relative level of detection (RLOD) in artificially contaminated samples (so-called RLOD study);
- An inclusivity/exclusivity study of the alternative method.

- **Sensitivity study**

The sensitivity study aims to determine the difference in sensitivity between the reference and the alternative method.

The sensitivity is the ability of the reference method or alternative method to detect the analyte.

- **Relative level of detection study**

A comparative study is conducted to evaluate the level of detection (LOD) of the alternative method against the reference method. The evaluation is based on the calculation of the relative level of detection (RLOD).

The level of detection at 50% ( $LOD_{50}$ ) is the measured analyte concentration, obtained by a given measurement procedure, for which the probability of detection is 50%.

The relative level of detection at  $P = 0,50$  ( $LOD_{50}$ ) of the alternative method divided by the level of detection at  $P = 0,50$  ( $LOD_{50}$ ) of the reference method.

- **Inclusivity and exclusivity study**

The inclusivity study is a study involving pure target strains to be detected or enumerated by the alternative method.

The exclusivity study is a study involving pure non-target strains, which can be potentially cross-reactive, but are not expected to be detected or enumerated by the alternative method.

- **Interlaboratory study**

The interlaboratory study is a study performed by multiple laboratories testing identical samples at the same time, the results of which are used to estimate alternative-method performance parameters.

The aim of the interlaboratory study is to determine the difference in sensitivity between the reference and the alternative method when tested by different collaborators using identical samples (reproducibility conditions).

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Appendix B: Protocol of the reference method

Appendix C: Artificial contaminations

Appendix D: Relative sensitivity study – Raw results

Appendix E: Relative level of detection study – Raw results

Appendix F: Inclusivity and exclusivity study – Raw results

Appendix G: Interlaboratory study – Raw results

Appendix H: Extension study – Artificial contaminations

Appendix I: Extension study – Relative sensitivity study – Raw results

Appendix J: Extension study – Relative level of detection study – Raw results

## 1. Introduction

The Thermo Scientific™ Oxoid™ Salmonella Precis™ Method is validated by AFNOR Certification under the mark NF VALIDATION with the certification number UNI 03/06–12/07 according to the standard EN ISO 16140-2:2016. The method is intended for all human food products, feed products and environmental samples (except primary production samples) since its initial validation.

Table 1 summarizes the different steps of the validation that occurred since the initial validation.

*Table 1: Steps of the validation AFNOR certification*

Step	Date	Standards	Expert Laboratory	Observation
Initial validation study	December 2007	EN ISO 16140:2003 EN ISO 6579:2002	ADRIA Développement	/
First renewal study	October 2011	EN ISO 16140/A1:2011 EN ISO 6579:2002	ADRIA Développement	Additional selectivity tests
Second renewal study	July 2015	EN ISO 16140/A1:2011 EN ISO 6579:2002	ADRIA Développement	No additional tests
Third renewal study	January 2020	EN ISO 16140-2:2016 EN ISO 6579-1:2017	Microsept	Additional tests to fulfill the EN ISO 16140-2:2016 standard
Extension study	October 2020	EN ISO 16140-2:2016 EN ISO 6579-1:2017 EN ISO 6579-1/A1:2020	Microsept	Addition of new enrichment protocols,new categories and large test portions

The present document introduces all the validation study results for the AFNOR Certification validation of the Salmonella Precis Method according to the standard EN ISO 16140-2:2016 for a broad range of foods, feed products and environmental samples.

A part of the results set out in this report were produced during validation tests carried out by ADRIA Développement as part of NF Validation, in accordance with prevailing requirements.

The remaining part of the results is constituted by the analyses performed by the Laboratory Microsept as part of the requirements of the updated validation standard.

## 2. Protocols of the methods

### 2.1. Alternative method

#### 2.1.1. Principle of the method

The Salmonella Precis™ method combines the benefits of flexible selective enrichment workflows, Thermo Scientific™ Oxoid™ *Brilliance™* Salmonella Agar and the Thermo Scientific™ Oxoid™ Salmonella Latex Test to reduce time to result over conventional culture methods.

*Brilliance* Salmonella Agar is the first in a new class of chromogenic media to incorporate novel Inhibigen™ technology. This technology improves recovery of *Salmonella* by reducing background flora. Chromogens aid easy identification and differentiation by producing brightly coloured colonies. The selectivity of the *Brilliance* Salmonella Agar enables the use of basic enrichment workflows with BPW supplemented with novobiocin, BPW without supplementation, or the EN ISO 6887-4:2017 enrichment conditions for cocoa and chocolate products. It is possible to use the Thermo Scientific™ Oxoid™ ONE Broth Salmonella, a highly nutritious medium, for the recovery and growth of *Salmonellae* while inhibiting competing organisms. The growth promoter in the medium allows the recovery of stressed *Salmonella* cells, even when present in very low numbers.

The Oxoid Salmonella Latex Test provides a quick and easy method for confirmation of *Salmonella* species from agar culture media. Isolated colonies can be also be confirmed using the Oxoid™ Microbact™ GNB 24E Kit, or the EN ISO 6579-1:2017 confirmation procedure, or an appropriate EN ISO 16140-6:2019 validated method.

The Salmonella Precis Method has been submitted to various validation studies according to the EN ISO 16140:2003 and EN ISO 16140-2:2016 standards, as well as the Appendix J of the AOAC Guidelines (2012).

### **2.1.2. Protocol of the method**

Table 2 presents the different enrichment modalities depending on the food item analyzed.

*Table 2: enrichment protocols per category*

<b>Category</b>	<b>Test portion</b>	<b>Dilution</b>	<b>Broth</b>	<b>Incubation temperature and time</b>
Broad range of foods, feeds and environmental samples	25 g Wipe, swab or sponge	1/10 (or addition of 10 mL or 100 mL for surface samplings)	ONE Broth-Salmonella	42±1°C 16 – 20 h
Broad range of foods	25 g	1/10	BPW + novobiocin at 12 mg/L	34°C to 38°C 20 – 26 h
Environmental samples	25 g Wipe, swab, sponge	1/10 (or addition of 10 mL or 100 mL for surface samplings)	BPW	34°C to 38°C 20 – 26 h
Animal feed and pet food products	up to 150 g	1/10	BPW + novobiocin at 12 mg/L	34°C to 38°C 20 – 26 h
Milk powders, infant formula and infant cereals with and without probiotics	up to 375 g	1/10	BPW + vancomycin at 6 mg/L	34°C to 38°C 18 – 24 h
Cocoa & chocolate products	up to 375 g	1/10	ISO 6887-4:2017 protocol	34 – 38°C 20 – 26 h
			Prewarmed BPW	34 – 38°C 22 – 28 h

From the different enrichments, a streaking is performed on the *Brilliance Salmonella* Agar plate, incubated for 22 to 28 hours at 34°C to 38°C. The presence of typical purple well-isolated colonies will be confirmed by one of the following options:

- Oxoid Salmonella Latext Kit or Microbact GNB 24E Kit in the context of NF Validation,
- Confirmatory tests detailed in the ISO horizontal method for the detection of *Salmonella* (EN ISO 6579), or any methods validated according to the EN ISO 16140-6:2019 in the context of ISO technical rules.

The workflows of the method are set out in Appendix A.

### **2.1.3. Restrictions**

There are no restrictions on use for the *Salmonella* Precis method.

## **2.2. Reference method**

The standard EN ISO 6579:2002 was used for the initial validation study and for the two following renewal studies.

This standard was revised in 2017 and the amendments introduced were considered minor. It's consequently the EN ISO 6579-1:2017 standard: *Horizontal method for the detection, enumeration*

*and serotyping of Salmonella - Part 1: Detection of Salmonella spp* that was used as the reference method during the third renewal study.

During the extension study, the standard with its amendment A1: *Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSRV and SC* was used as the reference method.

The workflow of the last version of the reference method is presented in Appendix B.

### **2.3. Study design**

Concerning the protocol using ONE Broth Salmonella, as there is no shared enrichment step for both the alternative and the reference methods, different test portions coming from the same batch or lot of product must be used for the two methods. The study thus provides unpaired data and the expression “unpaired study” is used to describe the study design.

Concerning the protocols not using ONE Broth Salmonella, the ISO 16140-2 validation is:

- a paired study for categories Environmental samples and Cocoa & chocolate products enriched in prewarmed BPW (the broth is the same as the one used for the reference method for these categories),
- an unpaired study for the other categories.

### 3. Methods comparison study

The study was conducted on a variety of samples and strains representative of food products. This is not an exhaustive list of the various matrices included in the application scope. For any remark on the alternative method, you can contact AFNOR Certification by connecting to the Internet page <http://nf-validation.afnor.org/contact-2/>.

#### 3.1. Sensitivity study

The purpose of this study is to compare the two methods – the reference method EN ISO 6579-1:2017 and the *Salmonella* Precis method – on samples contaminated or not contaminated with *Salmonella*.

##### 3.1.1. Protocols applied during the first validation studies (2007 to 2017)

- **Incubation times:**

The minimum incubation times were tested, for example, 16 hours for the enrichment in ONE Broth *Salmonella* and 22 hours for the *Brilliance Salmonella* Agar plates.

- **Confirmations:**

Presumptive positive results were confirmed by performing the tests described in the reference method after purification and by the realization of the Oxoid *Salmonella* Latex Test.

A supplementary confirmation protocol in case on an unpaired study was also applied by subculturing 0.1 mL of the enriched ONE Broth *Salmonella* in a tube of RVS broth, incubated for 24±3 h at 41.5±1°C, before streaking on XLD agar and ASAP agar plates.

- **Cold storage of the enriched broths:**

The enriched ONE Broth *Salmonella* samples were stored for 72 h at 5±3°C and then tested again using the alternative method and confirmed if positive, in order to document the impact of a cold storage.

##### 3.1.2. Number and nature of the samples

The sensitivity study for all categories concerned 663 samples:

- 397 samples analyzed during the initial validation study,
- 266 samples analyzed during this third renewal study.

Two food items are strongly represented: mayonnaise in “Ready-to-eat and ready-to-reheat products” and raw liquid egg in “Specific ingredients and foods”, as these two food items were considered as types during the initial validation study.

The Expert Laboratory chose to keep all the results of these two food items in the statistical analysis of the results as they contain positive and negative deviations and naturally contaminated samples.

Samples analyzed by category and type are presented in table 3.

Table 3: Distribution of the samples per category and type (\*: by any method)

Categories	Type			Positive results*	Negative results	Total
<b>Ready to eat and ready-to-reheat products ①</b>	a	Ready-to-eat products			39	38
	b	Ready-to-reheat products			13	10
	c	Marinated and smoked products			10	10
	<b>Total</b>			<b>62</b>	<b>58</b>	<b>120</b>
<b>Meat products ②</b>	a	Raw products (incl. fresh, frozen, seasoned)			16	22
	b	Raw poultry (incl. fresh, frozen, seasoned)			10	10
	c	Delicatessen			10	10
	<b>Total</b>			<b>36</b>	<b>42</b>	<b>78</b>
<b>Dairy products ③</b>	a	Pasteurized products			11	10
	b	Raw products			14	28
	c	Milks and dairy products powders			13	10
	<b>Total</b>			<b>38</b>	<b>48</b>	<b>86</b>
<b>Seafood and vegetables ④</b>	a	Raw and cooked seafood			18	11
	b	4 <sup>th</sup> range fresh foods and others			10	15
	c	Raw vegetal products			10	17
	<b>Total</b>			<b>38</b>	<b>43</b>	<b>81</b>
<b>Specific ingredients and foods ⑤</b>	a	Specific ingredients			12	24
	b	Specific foods (infant formulas)			11	11
	c	Pasteurized eggs and egg powders			25	33
	<b>Total</b>			<b>48</b>	<b>68</b>	<b>116</b>
<b>Feed products ⑥</b>	a	Pet feed			17	25
	b	Livestock feed			11	11
	c	Ingredients for feed products			18	12
	<b>Total</b>			<b>46</b>	<b>48</b>	<b>94</b>
<b>Environmental samples ⑦</b>	a	Process waters			10	10
	b	Dusts and residues			10	10
	c	Surface samples			31	17
	<b>Total</b>			<b>51</b>	<b>37</b>	<b>88</b>
All categories	<b>Total</b>			<b>319</b>	<b>344</b>	<b>663</b>

### 3.1.3. Artificial contamination

Artificial contamination was carried out using stressed strains in accordance with the requirements of the validation standard and the AFNOR Validation Technical Board (see Appendix C).

Table 4 gives the distribution of the positive samples per level of contamination.

Table 4: distribution of the positive samples per level (cl: contamination level)

Positive samples	Naturally contaminated samples	Artificially contaminated samples						Total	
		Spiking			Seeding				
		cl ≤ 5	5 < cl ≤ 10	10 < cl ≤ 30	cl ≤ 3	3 < cl ≤ 10	cl > 10		
#	70	143	25	3	74	4	0	319	
%	21.9%	44.8%	7.8%	0.9%	23.2%	1.3%	0%	100%	

319 samples gave a positive result by at least one of the methods and 21.9% of them were naturally contaminated.

Twenty-seven results obtained during the initial validation with samples contaminated at levels above 5 CFU per test portion were not included in the statistical interpretation to fulfill the requirements of the Technical Board (last table of the sensitivity appendices). They concern:

- 2 meat products in positive agreement,
- 7 dairy products: 5 in positive agreement, 1 negative deviation and 1 positive deviation,
- 2 seafood products in positive agreement,
- 8 ready-to-eat and ready-to-reheat products in positive agreement,
- 8 feed products in positive agreement.

### 3.1.4. Results

Raw data are shown in Appendix D.

Table 5 shows the results of the sensitivity study for all categories.

*(Table 5: results of the sensitivity study for both methods (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation)*

Category	Response	R+	R-
<b>Ready-to-eat and ready-to-reheat products</b> <b>①</b>	A+	PA = 54	PD = 3
	A-	ND = 5 incl. 0 PPND	NA = 58 incl. 0 PPNA
<b>Meat products</b> <b>②</b>	A+	PA = 33	PD = 2
	A-	ND = 1 incl. 0 PPND	NA = 42 incl. 0 PPNA
<b>Dairy products</b> <b>③</b>	A+	PA = 32	PD = 3
	A-	ND = 3 incl. 0 PPND	NA = 48 incl. 3 PPNA
<b>Seafood and vegetables</b> <b>④</b>	A+	PA = 33	PD = 2
	A-	ND = 3 incl. 0 PPND	NA = 43 incl. 0 PPNA
<b>Specific ingredients and foods</b> <b>⑤</b>	A+	PA = 41	PD = 2
	A-	ND = 5 incl. 0 PPND	NA = 68 incl. 0 PPNA
<b>Feed products</b> <b>⑥</b>	A+	PA = 30	PD = 10
	A-	ND = 6 incl. 0 PPND	NA = 48 incl. 2 PPNA
<b>Environmental samples</b> <b>⑦</b>	A+	PA = 45	PD = 2
	A-	ND = 4 incl. 0 PPND	NA = 37 incl. 0 PPNA
<b>All categories</b>	A+	<b>PA = 268</b>	<b>PD = 24</b>
	A-	<b>ND = 27 incl. 0 PPND</b>	<b>NA = 344 incl. 5 PPNA</b>

### 3.1.5. Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (PFR)

The set of results obtained were used to calculate the relative trueness, the sensitivity and the false positive ratio for each of the categories and for all the categories, according to the formulas set out in the EN ISO 16140-2:2016 standard (table 6).

Table 6: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method (SE<sub>alt</sub>: sensitivity for the alternative method, SE<sub>ref</sub>: sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method)

Category	Type	PA	NA	ND	PD	N	PPND	PPNA	SEalt	SEref	RT	FPR
Ready-to-eat and ready-to-reheat products ①	a	32	38	4	3	77	0	0	89.7%	92.3%	90.9%	0.0%
	b	13	10	0	0	23	0	0	100.0%	100.0%	100.0%	0.0%
	c	9	10	1	0	20	0	0	90.0%	100.0%	95.0%	0.0%
	Total	54	58	5	3	120	0	0	91.9%	95.2%	93.3%	0.0%
Meat products ②	a	13	22	1	2	38	0	0	93.8%	87.5%	92.1%	0.0%
	b	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	c	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	Total	33	42	1	2	78	0	0	97.2%	94.4%	96.2%	0.0%
Dairy products ③	a	11	10	0	0	21	0	0	100.0%	100.0%	100.0%	0.0%
	b	10	28	1	3	42	0	3	92.9%	78.6%	90.5%	10.7%
	c	11	10	2	0	23	0	0	84.6%	100.0%	91.3%	0.0%
	Total	32	48	3	3	86	0	3	92.1%	92.1%	93.0%	6.3%
Seafood and vegetables ④	a	13	11	3	2	29	0	0	83.3%	88.9%	82.8%	0.0%
	b	10	15	0	0	25	0	0	100.0%	100.0%	100.0%	0.0%
	c	10	17	0	0	27	0	0	100.0%	100.0%	100.0%	0.0%
	Total	33	43	3	2	81	0	0	92.1%	94.7%	93.8%	0.0%
Specific ingredients and foods ⑤	a	9	24	1	2	36	0	0	91.7%	83.3%	91.7%	0.0%
	b	9	11	2	0	22	0	0	81.8%	100.0%	90.9%	0.0%
	c	23	33	2	0	58	0	0	92.0%	100.0%	96.6%	0.0%
	Total	41	68	5	2	116	0	0	89.6%	95.8%	94.0%	0.0%
Feed products ⑥	a	11	25	2	4	42	0	1	88.2%	76.5%	85.7%	4.0%
	b	11	11	0	0	22	0	1	100.0%	100.0%	100.0%	9.1%
	c	8	12	4	6	30	0	0	77.8%	66.7%	66.7%	0.0%
	Total	30	48	6	10	94	0	2	87.0%	78.3%	83.0%	4.2%
Environmental samples ⑦	a	9	10	1	0	20	0	0	90.0%	100.0%	95.0%	0.0%
	b	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	c	26	17	3	2	48	0	0	90.3%	93.5%	89.6%	0.0%
	Total	45	37	4	2	88	0	0	92.2%	96.1%	93.2%	0.0%
All categories	Total	268	344	27	24	663	0	5	91.5%	92.5%	92.3%	1.5%

The results for all categories are summarized in the table 7 below.

*Table 7: summary of the results for all categories*

Parameter	Formula EN ISO 16140-2 :2016	Results for all categories
<b>Sensitivity of the alternative method (SE<sub>alt</sub>)</b>	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100 \%$	91.5 %
<b>Sensitivity of the reference method (SE<sub>ref</sub>)</b>	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100 \%$	92.5 %
<b>Relative trueness (RT)</b>	$RT = \frac{(PA + NA)}{N} \times 100 \%$	92.3 %
<b>False positive ratio (FPR)</b>	$FPR = \frac{FP}{NA} \times 100 \%$	1.5 %

### 3.1.6. Analysis of discordant results

Discordant results are examined according to the EN ISO 16140-2:2016 standard.

The negative deviations are given in table 8 and the positive deviations in table 9.

Twenty-seven negative deviations were observed: 10 from naturally contaminated samples and 17 from artificially contaminated samples. For 2 samples (1698431: coffee éclair pastry and 1714607: cod fillet), the presence of *Salmonella* in the ONE Broth Salmonella was detected, but only by the additional confirmation protocol of the ISO 16140-2 after a subculture in RVS broth.

Twenty-four positive deviations were observed: 13 from naturally contaminated samples and 11 from artificially contaminated samples.

In conclusion, 25 negative deviations and all 24 positive deviations most probably come from the nature of the study design. In an unpaired study, because of the difference of sampling between both methods, and the use of naturally contaminated samples or seeded samples with low levels of contamination, no cell of *Salmonella* may have been present in the sampling of one of the two methods.

The results obtained by the two confirmation protocols are the same, except for two samples (1508 and 1509) analysed during the initial validation study. They were contaminated by a *Salmonella arizona* strain, for which the latex confirmation test gave a negative result while the classical tests of the ISO method gave a positive result.

For the sample 1730227: alfalfa sprouts, which is a negative agreement, the additional confirmation protocol of the ISO 16140-2 allowed finding *Salmonella* in the ONE Broth Salmonella.

Table 8: summary of the negative deviations

Category	Sample number	Sample	Type	Inoculation level	Salmonella Precis Method							Additional confirmation ISO 16140-2 tests	
					Latex test confirmation				ISO confirmation tests				
					Brilliance	Latex	Result	Concordance	Bioch. Tests	Result	Concordance	Result	Concordance
①	1609	Pineapple carrot surimi salad	a	2.2	-	/	A	ND	/	A	ND	/	/
	1484	Mayonnaise	a	/	-	/	A	ND	/	A	ND	/	/
	1487	Mayonnaise	a	/	-	/	A	ND	/	A	ND	/	/
	1268	Smoked salmon	c	18.4	-	/	A	ND	/	A	ND	/	/
	1508	Smoked cod eggs	c	2.0	+	-	A	ND	Salm.	P	PA	/	/
	1509	Seafood cocktail	c	2.0	+	-	A	ND	Salm.	P	PA	/	/
	1698431	Coffee éclair pastry	a	2.7	EL	/	A	ND	/	A	ND	+	P PA
②	1921	Raw beef meat	a	/	-	/	A	ND	/	A	ND	/	/
③	2123	Raw milk	b	4.0	-	/	A	ND	/	A	ND	/	/
	1184	Milk powder	c	1.2	-	/	A	ND	/	A	ND	/	/
	1665840	Skimmed organic milk powder	c	3.0	Ø	/	A	ND	/	A	ND	-	A ND
④	1270	Salmon fillets	a	18.4	-	/	A	ND	/	A	ND	/	/
	1714605	Tuna loin	a	0.7	EM	/	A	ND	/	A	ND	-	A ND
	1714607	Cod fillet	a	0.7	EM	/	A	ND	/	A	ND	+	P PA
⑤	1479	Raw liquid egg	c	/	-	/	A	ND	/	A	ND	/	/
	1726713	Cocoa powder	a	3.3	EL	-	A	ND	/	A	ND	-	A ND
	1730224	Infant formula + Bifidobacterium	b	3.2	Ø	/	A	ND	/	A	ND	-	A ND
	1726715	Infant formula with cereals and vegetables	b	3.3	Ø	/	A	ND	/	A	ND	-	A ND
	1665837	Pasteurized egg white powder	c	3.3	Ø	/	A	ND	/	A	ND	-	A ND
⑥	1497	Cat kibbles	a	1.2	-	/	A	ND	/	A	ND	/	/
	1498	Dog kibbles	a	1.2	-	/	A	ND	/	A	ND	/	/
	1099	Poultry dehydrated proteins	c	/	-	/	A	ND	/	A	ND	/	/
	1104	Poultry dehydrated proteins	c	/	-	/	A	ND	/	A	ND	/	/
	1175	Poultry dehydrated proteins	c	/	-	/	A	ND	/	A	ND	/	/
	1178	Poultry dehydrated proteins	c	/	-	/	A	ND	/	A	ND	/	/
⑦	1812	Process water	a	2.4	-	/	A	ND	/	A	ND	/	/
	1590	Swab turning device for pallets	c	/	-	/	A	ND	/	A	ND	/	/
	1952	Swab preparation table	c	4.4	-	/	A	ND	/	A	ND	/	/
	1955	Swab wall bin room	c	/	-	/	A	ND	/	A	ND	/	/

Table 9: summary of the positive deviations

Category	Sample number	Sample	Type	Inoculation level	Reference Method						Salmonella Precis Method					
					RVS		MKTn		Confirmation	Result	Brilliance	Conf. Latex	Conf. ISO	Result	Concordance	
					XLD	RAPID' Salm.	XLD	RAPID' Salm.								
①	1112	Mayonnaise	a	/	-	-	-	+ (1 col. <i>P. mirabilis</i> )	-	A	+	+	+	P	PD	
	1714610	Piemontese salad	a	1.3	EM	EM	EM	EM	/	A	BM	+	+	P	PD	
	1726680	Asian-style meal with prawns	a	2.0	Ø	Ø	Ø	Ø	/	A	AM	+	+	P	PD	
②	1763	Poultry	a	/	-	-	-	-	-	A	+	+	+	P	PD	
	1660028	Marinated raw pork meat	a	/	DH ( <i>H. alvei</i> )	DH ( <i>H. alvei</i> )	DH ( <i>H. alvei</i> )	EM ( <i>C. brakii</i> )	-	A	BH	+	+	P	PD	
③	1259	Raw milk	b	/	-	-	-	-	-	A	+	+	+	P	PD	
	1271	Raw milk	b	1.2	-	-	-	-	-	A	+	+	+	P	PD	
	1854	Raw milk	b	4.8	-	-	-	-	-	A	+	+	+	P	PD	
④	1730251	Cod	a	2.2	EL	EL	EL	EL	/	A	AM	+	+	P	PD	
	1730252	Tuna	a	2.2	EL	Ø	EL	EL	/	A	BM	+	+	P	PD	
⑤	1730231	Crushed cocoa beans	a	0.8	Ø	Ø	Ø	Ø	/	A	BM	+	+	P	PD	
	1730232	Crushed cocoa beans	a	0.8	Ø	Ø	Ø	Ø	/	A	AM	+	+	P	PD	
⑥	1193	Hen pieces	a	/	-	-	-	-	-	A	+	+	+	P	PD	
	1493	Dog kibbles	a	/	-	-	+ ( <i>C. freundii</i> )	+ ( <i>C. youngae</i> )	-	A	+	+	+	P	PD	
	1499	Seeds for birds	a	1.2	-	-	-	-	-	A	+	+	+	P	PD	
	1602	Dog kibbles	a	/	-	-	-	-	-	A	+	+	+	P	PD	
	1102	Dehydrated poultry proteins	c	/	-	-	-	-	-	A	+	+	+	P	PD	
	1171	Dehydrated poultry proteins	c	/	-	-	-	-	-	A	+	+	+	P	PD	
	1173	Dehydrated poultry proteins	c	/	-	-	-	-	-	A	+	+	+	P	PD	
	1174	Dehydrated poultry proteins	c	/	-	-	-	-	-	A	+	+	+	P	PD	
	1754	Dehydrated poultry proteins	c	/	-	-	-	-	-	A	+	+	+	P	PD	
⑦	1876	Bone meal	c	/	-	-	-	-	-	A	+	+	+	P	PD	
	1949	Swab shelf spices room	c	2.0	-	-	-	-	-	A	+	+	+	P	PD	
	1950	Swab shelf cold room raw materials	c	2.0	-	-	-	-	-	A	+	+	+	P	PD	

### 3.1.7. Calculation and interpretation of data

Table 10 shows the difference between negative deviations and positive deviations and the acceptability limits.

*Table 10: acceptability limits*

Category	Type	ND	PD	(ND-PD)	Acceptability limit (AL)	Observation	
Ready-to-eat and ready-to-reheat products ①	a	4	3	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	1	0				
	Total	5	3	2	3		
Meat products ②	a	1	2	/	/		
	b	0	0				
	c	0	0				
	Total	1	2	-1	3		
Dairy products ③	a	0	0	/	/	(ND-PD) ≤ AL	
	b	1	3				
	c	2	0				
	Total	3	3	0	3		
Seafood and vegetables ④	a	3	2	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	0	0				
	Total	3	2	1	3		
Specific ingredients and foods ⑤	a	1	2	/	/	(ND-PD) ≤ AL	
	b	2	0				
	c	2	0				
	Total	5	2	3	3		
Feed products ⑥	a	2	4	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	4	6				
	Total	6	10	-4	3		
Environmental samples ⑦	a	1	0	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	3	2				
	Total	4	2	2	3		
<b>All categories</b>	<b>Total</b>	<b>27</b>	<b>24</b>	<b>3</b>	<b>7</b>		

The observed values (ND – PD) are below the acceptability limit for each category and for all categories. The alternative method produces results comparable to the reference method.

### 3.1.8. Enrichment broth storage at 2 – 8°C for 72 hours

A stability study of the enriched broths stored at 5±3°C for 72 hours was performed on all positive and discordant samples. After storage, the broths were reanalyzed and confirmed.

Only one change was observed concerning the sample 1714607 (cod fillet) for which the result moved from a negative deviation to a positive agreement as a positive confirmed result was observed on *Brilliance Salmonella* Agar after 3 days of cold storage.

Table 11 shows the difference between negative deviations and positive deviations and the acceptability limits.

*Table 11: acceptability limits*

Category	Type	ND	PD	(ND-PD)	Acceptability limit (AL)	Observation	
Ready-to-eat and ready-to-reheat products ①	a	4	3	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	1	0				
	Total	5	3	2	3		
Meat products ②	a	1	2	/	/		
	b	0	0				
	c	0	0				
	Total	1	2	-1	3		
Dairy products ③	a	0	0	/	/	(ND-PD) ≤ AL	
	b	1	3				
	c	2	0				
	Total	3	3	0	3		
Seafood and vegetables ④	a	2	2	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	0	0				
	Total	2	2	0	3		
Specific ingredients and foods ⑤	a	1	2	/	/	(ND-PD) ≤ AL	
	b	2	0				
	c	2	0				
	Total	5	2	3	3		
Feed products ⑥	a	2	4	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	4	6				
	Total	6	10	-4	3		
Environmental samples ⑦	a	1	0	/	/	(ND-PD) ≤ AL	
	b	0	0				
	c	3	2				
	Total	4	2	2	3		
<b>All categories</b>	<b>Total</b>	<b>26</b>	<b>24</b>	<b>2</b>	<b>7</b>		

The alternative method produces results comparable to the reference method after storage of the broths for 3 days at 5±3°C.

### 3.1.9. Conclusion of the sensitivity study

The statistical tests of the EN ISO 16140-2:2016 standard conclude that the alternative method produces comparable results to the reference method.

## 3.2. Relative detection level study

### 3.2.1. Matrices used

Various "food matrix-strain" pairs were studied in parallel using the reference method and the alternative method, for the studied categories (cf. table 12).

*Table 12: Matrix-strain pairs for each category*

Category	Couple matrix strain	Origin of the strain	Step of the validation
1	Macédoine / <i>S. Infantis</i> DGR133	Fresh leaves salad	3 <sup>rd</sup> renewal study according to ISO 16140-2:2016 standard
2	Raw turkey scallop / <i>S. Typhimurium</i> 26	Meat product	Initial validation study according to ISO 16140:2003 standard
3	Raw milk / <i>S. Anatum</i> 25	Dairy product	
4	Salad / <i>S. Enteritidis</i> 17	Vegetal product	
5	Raw liquid egg / <i>S. Enteritidis</i> 2532	Egg product	
6	Dog kibbles / <i>S. Anatum</i> 1	Meat product	
7	Process water / <i>S. Give</i> 21	Swab	

The total flora of the matrix was determined and is set out in the results tables in Appendix E.

### 3.2.2. Contamination protocol

#### 3.2.2.1. Initial validation study

At least four contamination levels, including the negative control, were performed. Each of the "matrix – strain – level" combinations was replicated six times using the *Salmonella* Precis alternative method and the reference method.

As the first enrichment stage is not common, twelve 25-g bags of food products were made up, diluted to 1/10 in the appropriate diluent, then individually contaminated using a bacterial suspension with the determined titer. Each contaminant suspension was enumerated on 30 plates of non-selective agar.

#### 3.2.2.2. Third renewal study

Three levels of contamination were prepared consisting of a negative control level, a low level, and a higher level.

The negative control level shall not produce positive results. Five replicates were tested for this level. The low level shall be the theoretical detection level, it was contaminated at 0.7 - 1 CFU per test portion to obtain fractional recovery results. Twenty replicates were tested for this level.

The higher level shall be just above the theoretical detection level, it was contaminated at 2 - 3 CFU per test portion. Five replicates were tested for this level.

The macédoine was contaminated using the seeding protocol. Bulk contaminations were performed on the matrix for the different levels of contamination, then the matrix was stored at 5±3°C for two days before analysis. Samples were then analyzed using the reference and the alternative method.

### 3.2.3. Results

The detailed results tables are set out in Appendix E.

The RLOD is defined as the ratio of the LODs of the alternative method and the reference method:  
 $RLOD = \frac{LOD_{alt}}{LOD_{ref}}$ .

The RLODs calculations were performed according to the EN ISO 16140-2: 2016 standard using the Excel spreadsheet available for download at <http://standards.iso.org/iso/16140>, with unknown concentrations. Values of the RLODs are set out in table 13.

*Table 13: RLODs values for all categories (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, b=ln(RLOD): logarithm of the RLOD value, sd(b): standard deviation of b, z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis H0: b=0, p-value: p-value of the z-Test)*

Category	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value	Acceptability limit
1	1.159	0.455	2.953	0.148	0.467	0.316	0.752	2.5
2	1.710	0.588	4.969	0.536	0.533	1.005	0.315	2.5
3	1.356	0.573	3.213	0.305	0.431	0.707	0.480	2.5
4	1.855	0.773	4.451	0.618	0.438	1.411	0.158	2.5
5	0.855	0.334	2.190	-0.157	0.470	0.334	1.261	2.5
6	0.622	0.240	1.612	-0.474	0.476	0.996	1.681	2.5
7	0.520	0.209	1.293	-0.654	0.456	1.436	1.849	2.5
Combined	<b>1.021</b>	<b>0.723</b>	<b>1.442</b>	<b>0.021</b>	<b>0.172</b>	<b>0.122</b>	<b>0.903</b>	<b>2.5</b>

The LOD<sub>50</sub> calculations according to Wilrich & Wilrich POD-LOD calculation program - version 9, are given in table 14.

*Table 14: LOD50% for the alternative and reference method*

Matrix	Strain	LOD50% (CFU/25 g) alternative method	LOD50% (CFU/25 g) Reference method
Macédoine	S. Infantis DGR133	0.715	0.636
Raw turkey scallop	S. Typhimurium 26	0.520	0.324
Raw milk	S. Anatum 25	0.550	0.308
Salad	S. Enteritidis 17	0.764	0.236
Raw liquid egg	S. Enteritidis 2532	0.497	0.564
Dog kibbles	S. Anatum 1	0.172	0.293
Process water	S. Give 21	0.860	1.565
<b>Combined results</b>		<b>0.584</b>	<b>0.552</b>

### **3.2.4. Interpretation and conclusion**

The RLODs values are below the acceptability limit set at 2.5, meaning that, as stated in EN ISO 16140-2:2016, the maximum increase in LOD of the alternative versus the reference method is not considered as relevant in consideration of the fitness for purpose of the method.

In conclusion, alternative and reference methods show similar LODs values for the detection of *Salmonella* spp. in the categories tested.

## **3.3. Inclusivity and exclusivity study**

The inclusivity and exclusivity of the method are defined by analyzing, respectively, 100 positive strains and 30 negative strains:

The inclusivity and exclusivity were tested in three steps:

- Initial validation study (2007): 53 target strains and 40 non-target strains,
- First renewal study (2011): 13 target strains,
- Third renewal study (2019): 40 target strains and 4 non-target strains.

### **3.3.1. Test protocols**

#### **• Protocol for inclusivity**

For each of the *Salmonella* strains tested, a culture in brain heart infusion broth was performed for 24 hours at the required temperature.

The ONE Broth Salmonella was inoculated between 10 and 100 cells per 225 mL, then the complete protocol of the method was applied.

#### **• Protocol for exclusivity**

The non-target strains were cultured in brain heart infusion broth for 24 hours at the required temperature, inoculated in 225 mL of buffered peptone water in order to obtain levels of around  $10^5$  cells per mL, then the complete protocol of the method was applied.

### **3.3.2. Results**

The results are set out in Appendix F.

#### **• Inclusivity**

All target strains gave characteristic colonies on *Brilliance Salmonella* Agar, except one strain of *Salmonella* Dublin (adria 40), during the initial validation study, that did not grow in ONE Broth-Salmonella.

Among the four other strains of *Salmonella* Dublin tested, one showed characteristic colonies and the three others slightly characteristic colonies (pale purple-coloured).

This slight discolouration was also observed during the third renewal study with a strain of *S. houtenae* and a strain of *S. bongori*.

A strain of *Salmonella* Binza (2007) showed colonies smaller than the ones generally observed. This also happened for a strain of *Salmonella* Abortusequi during the third renewal study, which had a pale colouration too.

Concerning the confirmation test, six strains showed a weak or fine agglutination with the Oxoid Salmonella Latex Test:

- *Salmonella diarizonae* Ad595 (2007),
- *Salmonella diarizonae* 38:IV:z53 Ad1299 (2011),
- *Salmonella Meleagridis* ZYP361 (2019),
- *Salmonella bongori* ZQQ969 (2019),
- *Salmonella houtenae* ZNU025 (2019),
- *Salmonella Veneziana* ZGF788 (2019).

• **Exclusivity**

Three strains among the 44 tested strains gave purplish colonies on *Brilliance Salmonella* Agar (*Citrobacter diversus* adria 40, *Enterobacter sakazakii* adria 95 and *Serratia marcescens* BJK3652). These three strains showed a negative agglutination with the confirmation latex test.

A strain of *Enterobacter cloacae* having shown typical colonies on *Brilliance Salmonella* Agar during the sensitivity study of the initial validation study (sample 1263: raw milk), ten other strains of this species were tested and showed atypical turquoise colonies on *Brilliance Salmonella* agar.

### **3.3.3. Conclusion**

The inclusivity and the exclusivity of the alternative method are satisfactory.

## **3.4. Practicability**

The practicability of the alternative method was informed according to the criteria defined by the Technical Committee.

### **1. Storage conditions, shelf-life and modalities of utilization after first use**

ONE Broth Salmonella is available:

- In bottles: 10 x 225 mL,
- In ReadyBags: 3 x 3 L,
- As a dehydrated culture medium in 500 g pots to be reconstituted and supplemented with ONE Broth Salmonella supplement.

*Brilliance Salmonella* Agar is available:

- In pre-poured plates: 10 x 90 mm plates,
- As a dehydrated culture medium in 500 g pots to be reconstituted and supplemented with the Thermo Scientific™ Oxoid™ Salmonella Selective Supplement.

The shelf-life of tests is indicated on the reagents.

Bottles, ReadyBags and dehydrated culture media can be stored at ambient temperature. Pre-poured plates and supplements should be stored between +2°C and +8°C.

### **2. Time-to-result**

Negative results are obtained in two days.

Positive results are obtained in:

- Two days using the Oxoid Salmonella Latex Test,
- Four days using the tests of the reference method.

### 3. Common step with the reference method

The alternative method has no common step with the reference method.

### **3.5. Conclusion**

The comparative study of the methods was performed according to the EN ISO 16140-2:2016 standard.

- **Sensitivity study**

The performance of the Salmonella Precis Method was compared to that of the EN ISO 6579-1:2017 reference method by analyzing 663 samples divided into seven product categories.

The observed values (ND – PD) were below or equal to the acceptability limit for each category and for all categories after the initial test and after three days of conservation at  $5\pm3^{\circ}\text{C}$ .

Statistically, the alternative method produces results comparable to that of the reference method.

- **Relative level of detection study**

The relative detection level of the Salmonella Precis Method and reference method was evaluated by artificially contaminating seven different products.

The relative level of detection of the alternative method was between 0.520 and 1.710 cells per test portion.

The Salmonella Precis Method and the reference method showed similar LODs values for the detection of *Salmonella* spp. in the categories tested.

- **Inclusivity and exclusivity study**

The specificity of the method is satisfactory, as all target strains except one were detected (inclusivity) and three cross-reactions were observed among non-targeted tested strains that were unable to be confirmed (exclusivity).

## 4. Interlaboratory study

### 4.1. Study organization

- **Number of participating laboratories:** thirteen collaborators received samples.
- **Matrix used:** pasteurized semi-skimmed milk was used as matrix for the interlaboratory study.
- **Strain used:** the strain used for contamination was a strain of *Salmonella* Typhimurium (coded 305 by the Expert Laboratory).
- **Number of samples per laboratory:** 24 samples per collaborator were prepared for the reference method and 24 samples for the alternative method, broken down into 3 levels, with 8 samples per level. One additional sample, not artificially contaminated, was provided to the collaborators for the enumeration of the microorganisms of the matrix.

### 4.2. Control of the experimental parameters

#### 4.2.1. Contamination level

The contamination rates obtained in the matrix are set out in the table below:

Table 15: theoretical and actual contamination levels

Level	Samples	Theoretical target level (CFU / 25 mL)	Real level (CFU / 25 mL)
$L_0$ : Level 0	1-6-8-15-17-18-20-24	0	0
$L_1$ : Low level	2-5-9-10-13-14-19-23	5	5.4
$L_2$ : High level	3-4-7-11-12-16-21-22	25	23.0

#### 4.2.2. Stability of the samples

An enumeration of the *Salmonella* was realized on 5 mL of milk for the highest inoculation level on 3 vials. A detection of *Salmonella* spp. was performed on the lowest inoculation level on 3 samples. Results are reported in the following table.

Table 16: stability of the samples

Day	CFU/25 mL (XLD)			Detection / 25 mL		
	Vial 1	Vial 2	Vial 3	Vial 1	Vial 2	Vial 3
D0	10	15	15	+	+	+
D1	15	20	20	+	+	+
D2	15	20	20	+	+	+

No evolution of the contamination level was observed.

#### 4.2.3. Shipping conditions (temperature and state of the samples)

The temperatures of the samples at reception for all the collaborators are given in table 17.

Table 17: temperature and shipping conditions

Collaborator	Temperature at reception		Sample reception date
	Indicated by the probe	Given by the collaborator	
A	1.5°C	2.6°C	Day 1
B	3.0°C	7.5°C	Day 1
C	0.5°C	4.5°C	Day 1
D	1.5°C	8.5°C	Day 1
E	2.5°C	4.0°C	Day 1
F	2.5°C	6.6°C	Day 1
G	Reading not possible	3.4°C	Day 1
H	2.5°C	5.6°C	Day 1
I	3.0°C	3.0°C	Day 1
J	1.0°C	3.8°C	Day 1
K	3.0°C	4.8°C	Day 1
L	Reading not possible	3.9°C	Day 1
M	2.0°C	3.9°C	Day 1

Collaborator D determined a temperature at reception of 8.5°C but the measurement of the probe was at 1.5°C before opening of the package.

As a result of transport conditions, 13 laboratories carried out the tests.

### 4.3. Test results

The post-confirmation positive results obtained by the collaborators and by the expert laboratory are set out in the following tables. The results of the enumeration of the microorganisms of the matrix ranged between  $5.0 \times 10^2$  CFU/mL and  $3.0 \times 10^7$  CFU/mL.

#### 4.3.1. Expert laboratory results

The results of the expert laboratory are summarized in table 18.

Table 18: positive results obtained by expert laboratory by both methods

Contamination level	Alternative method	Reference method
$L_0$	0/8	0/8
$L_1$	7/8	8/8
$L_2$	8/8	8/8

#### 4.3.2. Collaborators results

Results of collaborators are shown in Table 19 and in Appendix G.

Collaborator G diluted in buffered peptone water a sample of the level  $L_1$  intended for the alternative method (G14). For this sample, the collaborator performed a 1/100 dilution of the initial suspension in ONE Broth Salmonella. The result obtained was negative. Because of this inversion, the results of this collaborator are shown but are not used in the final interpretation.

Collaborator K found a positive result with the reference method for four samples of the level  $L_0$ . The analyses of these four samples were renewed and confirmed.

Collaborator D found a positive sample at the level  $L_0$  with the alternative method. Only 2 typical colonies, identified as *Salmonella*, grew on the *Brilliance Salmonella* agar. This result may correspond to a cross-contamination during the streaking from the ONE Broth *Salmonella*. A second analysis from the broth showed a negative result.

*Table 19: Positive results obtained with the reference and the alternative methods*

Collaborators	Reference method			Alternative method		
	$L_0$	$L_1$	$L_2$	$L_0$	$L_1$	$L_2$
Collaborator A	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator B	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator C	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator D	0 / 8	8 / 8	8 / 8	1 / 8	8 / 8	8 / 8
Collaborator E	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator F	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator G	0 / 8	8 / 8	8 / 8	0 / 8	7 / 8	8 / 8
Collaborator H	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator I	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator J	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator K	4 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator L	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator M	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Total	4 / 104	104 / 104	104 / 104	1 / 104	103 / 104	104 / 104

The Expert Laboratory proposes to exclude results of collaborators G and K from the statistical analysis.

#### 4.3.3. Results of the collaborators used for the statistical analysis

The results of the 11 collaborators having realized the analyses are retained for the statistical interpretation. They are shown in Table 20.

*Table 20: Positive results retained for the statistical analysis*

Collaborators	Reference method			Alternative method		
	$L_0$	$L_1$	$L_2$	$L_0$	$L_1$	$L_2$
Collaborator A	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator B	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator C	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator D	0 / 8	8 / 8	8 / 8	1 / 8	8 / 8	8 / 8
Collaborator E	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator F	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator H	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator I	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator J	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator L	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Collaborator M	0 / 8	8 / 8	8 / 8	0 / 8	8 / 8	8 / 8
Total	0 / 88	88 / 88	88 / 88	1 / 88	88 / 88	88 / 88

## 4.4. Calculations and interpretation

### 4.4.1. Calculation of the specificity

The percentage specificity (SP) of the reference method and the alternative method is calculated, using the data after confirmation, based on the results of level  $L_0$  as follows:

- Specificity of the reference method:  $SP_{ref} = \left[1 - \left(\frac{P_0}{N}\right)\right] \times 100\%$
- Specificity of the alternative method:  $SP_{alt} = \left[1 - \left(\frac{CP_0}{N}\right)\right] \times 100\%$

where:

$N$  is the number of all  $L_0$  tests,

$P_0$  is the total number of false-positive results obtained with the blank samples before confirmation,

$CP_0$  is the total number of false-positive results obtained with blank samples.

The results are the following:

- $SP_{ref} = 100\%$
- $SP_{alt} = 98.9\%$

### 4.4.2. Summary of the results

A summary of results obtained at level 1 ( $L_1$ ), used for the statistical analysis in absence of fractional positive results, is set out in table 21.

*Table 21: tests results for the two methods at level  $L_1$  (PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumed positive before confirmation, \*: for the collaborator F only with the DLIS response)*

Level	Alternative method	Reference method			Total
		Reference method positive (R+)	Reference method negative (R-)		
$L_1$	Alternative method positive (A+)	PA = 88	PD = 0	88	
	Alternative method negative (A-)	ND = 0 including 0 PPND	NA = 0 including 0 PPNA	0	
	Total	88	0	88	

### 4.4.3. Calculation of the sensitivity of the methods, relative trueness and false positive ratio

The sensitivity of the two methods, the relative trueness and the false positive ratio parameters are calculated with the data of the table 21, according to the formulas below:

- Sensitivity for the alternative method:  $SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\%$
- Sensitivity for the reference method:  $SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)} \times 100\%$
- Relative trueness:  $RT = \frac{(PA+NA)}{N} \times 100\%$
- False positive ratio for the alternative method:  $FP = \frac{FP}{NA} \times 100\%$

where N is the total number of samples (NA + PA + PD + ND) and FP is false positive results.

The results are the following:

- $SE_{alt} = 100\%$
- $SE_{ref} = 100\%$
- $RT = 100\%$
- FP: false positive ratio is not calculable because no negative agreement was found at level  $L_1$

#### **4.4.4. Determination of the acceptability limit and conclusion**

The difference between  $(ND - PD)$  for the level where fractional recovery was obtained ( $L_1$ ) is calculated. The observed value found for  $(ND - PD)$  shall not be higher than the acceptability limit (AL). The AL is defined as  $[(ND - PD)_{max}]$  and calculated per level where fractional recovery was obtained as described below using the following three parameters:

$$- (p+)_{ref} = \frac{P_x}{N_x}, \text{ where}$$

$P_x$  = number of samples with a positive result obtained with the reference method at level  $x$ , ( $L_1$  or  $L_2$ ) for all laboratories;

$N_x$  = number of samples tested at level  $x$  ( $L_1$  or  $L_2$ ) with the reference method by all laboratories.

$$- (p+)_{alt} = \frac{CP_x}{N_x}, \text{ where}$$

$CP_x$  = number of samples with a confirmed positive result obtained with the alternative method at level  $x$  ( $L_1$  or  $L_2$ ) for all laboratories;

$N_x$  = number of samples tested at level  $x$  ( $L_1$  or  $L_2$ ) with the alternative method by all laboratories.

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$$- (ND - PD)_{max} = \sqrt{3N_x \times ((p+)_{ref} + (p+)_{alt} - 2((p+)_{ref} \times (p+)_{alt}))}, \text{ where}$$

$N_x$  = the total number of samples tested for level  $x$  ( $L_1$  or  $L_2$ ) by all laboratories.

When the observed value exceeds the AL (as described in EN ISO 16140-2:2016), investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results.

Based on the AL and the additional information, it is decided whether the alternative method is regarded as not fit for purpose. The reasons for acceptance of the alternative method in case the AL is not met shall be stated in the study report.

In this study, no fractional positive result is observed at level  $L_1$ . The different parameters obtained by the calculation are detailed in the table below:

*Table 22: values obtained for the determination of the acceptability limit*

Parameter	Value
$(p+)_{ref}$	1
$(p+)_{alt}$	1
Acceptability limit: $AL = (ND-PD)_{max}$	0
Observed value: $ND-PD$	0

The value  $(ND-PD)$  is equal to the acceptability limit, so the requirements of the EN ISO 16140-2:2016 standard are fulfilled.

#### 4.4.5. Evaluation of the LOD<sub>50%</sub>, LOD<sub>95%</sub> and RLOD

This evaluation is performed according to Annex F of EN ISO 16140-2:2016 and using the Excel spreadsheet as described in this standard.

As there is limited experience with the interpretation of this approach, the results are used only for information. Results are shown in the table 23.

*Table 23: values obtained for the determination of the relative level of detection (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, b=ln(RLOD): logarithm of the RLOD value, sd(b): standard deviation of b, z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis H0: b=0, p-value: p-value of the z-Test)*

Category	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value
ILS	1.000	0.456	2.192	0.000	0.392	0.000	1.000

Calculation of LOD<sub>50%</sub> and LOD<sub>95%</sub> are not possible because every sample at level 1 was positive.

#### 4.5. Conclusion

The data and their interpretation meet the requirements of the standard EN ISO 16140-2:2016. The performance of the alternative method and the reference method can be considered as equivalent.

## 5. Extension study (2020)

The study was conducted on a variety of samples and strains representative of food products. This is not an exhaustive list of the various matrices included in the application scope. For any remark on the alternative method, you can contact AFNOR Certification by connecting to the Internet page <http://nf-validation.afnor.org/contact-2/>.

### 5.1. Sensitivity study

For categories ① Meat products, ② Milks and dairy products, ③ Seafood products, ④ Vegetables, ⑤ Environmental samples, ⑧ Milk powder 375 g, and ⑨-⑩ Cocoa and chocolate products 375 g (see below), data were generated using validation studies data of the Thermo Scientific™ SureTect™ Salmonella species PCR Assay Method. Indeed, this method comprises a confirmation by streaking of the enriched broth on *Brilliance* Salmonella Agar, followed by confirmation using the Oxoid Salmonella Latex Test or the Microbact GNB 24E kit on typical colonies without a purification step or by the tests of the reference method.

*Note: Outside the scope of NF Validation, but included in the EN ISO 16140 technical rules, appropriate methods validated according to the EN ISO 16140-6:2019 standard can be as well used for the confirmation step.*

All the data from the isolation steps were used to interpret the sensitivity of the new Salmonella Precis Method protocols.

For the other two categories, ⑥ Specific foods in 25 g and ⑦ Animal feed in 150 g, the tests described below were carried out.

#### 5.1.1. Protocols applied during the extension study

- **Incubation times:**

The broth and alternate method agar plates were incubated at the minimum time of the tolerance interval (20 h for the broth and 22 h for the plates).

- **Confirmations:**

Presumptive positive results were confirmed using the Oxoid Salmonella Latex Test and the tests described in the reference method after purification.

An additional confirmation protocol was performed, as required by EN ISO 16140-2:2016, consisting in sub-culturing 0.1 mL of BPW + novobiocin enriched broth in an RVS tube, incubated for 21±3 h at 41.5±1°C, before streaking on XLD Agar and a chromogenic agar medium.

- **Cold storage of the enriched broths and Petri dishes:**

Storage of the enriched sample broths for 3 days at 5±3°C was carried out. The alternative method was applied from the stored enriched broths for positive and discordant samples. Only a latex test was performed for confirmations.

Storage of the inoculated and incubated Petri dishes was carried out for 3 days at 5±3°C. The Petri dishes were read again after storage and typical presumptive positive colonies confirmed using the latex test.

The final results are interpreted according to EN ISO 16140-2:2016, using the acceptability limits of paired or unpaired methods depending on the categories.

### **5.1.2. Number and nature of the samples**

The sensitivity study for all categories concerned 599 samples:

- 393 samples analyzed during the validation study of the SureTect Salmonella species PCR Assay Method,
- 206 samples analyzed during this extension study.

Samples analyzed by category and type are presented in table 24.

Table 24: Distribution of the samples per category and type (\*: by any method)

Categories	Type	Negative results	Positive results	Total
Meat products 25 g ①	a Raw meat products (frozen or fresh)	15	14	29
	b Raw poultry (fresh or frozen)	10	13	23
	c Raw delicatessen	9	11	20
	<b>TOTAL</b>	34	38	72
Milks and dairy products 25 g ②	a Pasteurized products	11	10	21
	b Raw products	12	8	20
	c Ingredients and low moisture products	10	11	21
	<b>TOTAL</b>	33	29	62
Seafood products 25 g ③	a Raw fishery products	11	9	20
	b RTRH	10	10	20
	c RTE	12	11	23
	<b>TOTAL</b>	33	30	63
Vegetables 25 g ④	a Raw vegetables (fresh, frozen)	9	11	20
	b Processed, under atmosphere	12	8	20
	c RTE	11	13	24
	<b>TOTAL</b>	32	32	64
Environmental samples ⑤	a Dusts and Residues	11	9	20
	b Cleaning and Process Waters	9	11	20
	c Surface samples	19	10	29
	<b>TOTAL</b>	39	30	69
Specific ingredients 25 g ⑥	a Eggs	10	10	20
	b Milk powders (cream, PIF without probiotic)	10	10	20
	c Confectionary ingredients (honey, flour, etc...)	11	9	20
	<b>TOTAL</b>	31	29	60
Animal feed and pet food up to 150 g ⑦	a Pet food	11	14	25
	b Animal feed (cereals and flour)	10	10	20
	c Ingredients (powder)	12	8	20
	<b>TOTAL</b>	33	32	65
Milk powders, infant formula, infant cereals and related ingredients (up to 375 g) ⑧	a Milk powder, Infant formula and infant cereals without probiotics	9	11	20
	b Infant formula and infant cereals with probiotics	9	13	22
	c Ingredients (Maltodextrin, starch, whey, lactose...)	12	9	21
	<b>TOTAL</b>	30	33	63
Cocoa and chocolate products– ISO 6887-4:2017 enrichment conditions (up to 375 g) ⑨	a Cocoa powder	13	14	27
	b Chocolate	12	15	27
	c Raw materials (butter, liquor)	13	14	27
	<b>TOTAL</b>	38	43	81
Cocoa and chocolate products– pre-warmed BPW (up to 375 g)⑩	a Cocoa powder	10	17	27
	b Chocolate	10	17	27
	c Raw materials (butter, liquor)	10	17	27
	<b>TOTAL</b>	30	51	81
<b>TOTAL ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨</b>		<b>303</b>	<b>296</b>	<b>599</b>
<b>TOTAL ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑩</b>		<b>295</b>	<b>304</b>	<b>599</b>

### 5.1.3. Artificial contamination

Artificial contamination was carried out using stressed strains in accordance with the requirements of the validation standard and the AFNOR Validation Technical Board (see Appendix H).

Table 25 gives the distribution of the positive samples per level of contamination.

*Table 25: distribution of the positive samples per level (cl: contamination level)*

Categories	Positive samples	Naturally contaminated samples	Artificially contaminated samples						Total	
			Spiking			Seeding				
			cl ≤ 5	5 < cl ≤ 10	10 < cl ≤ 30	cl ≤ 3	3 < cl ≤ 10	cl > 10		
TOTAL	296	39	128	43	0	77	10	0	599	
1, 2, 3, 4, 5, 6, 7, 8, 9	/	13.2%	43.2%	14.5%	0.0%	26.0%	3.4%	0.0%	100%	
TOTAL	304	39	134	44	0	77	10	0	599	
1, 2, 3, 4, 5, 6, 7, 8, 10	/	12.8%	44.1%	14.5%	0.0%	25.3%	3.3%	0.0%	100%	

Considering the categories 1, 2, 3, 4, 5, 6, 7, 8 and 9, 296 samples gave a positive result by at least one of the methods and 13.2% of them were naturally contaminated.

Considering the categories 1, 2, 3, 4, 5, 6, 7, 8 and 10, 304 samples gave a positive result by at least one of the methods and 12.8% of them were naturally contaminated.

### 5.1.4. Results

Raw data are shown in Appendix I.

Table 26 shows the results of the sensitivity study for all categories.

*Table 26: results of the sensitivity study for both methods (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation)*

Category	Response	R+	R-
<b>Meat products</b> <b>①</b>	A+	PA = 23	PD = 8
	A-	ND = 7 incl. 1 PPND	NA = 34 incl. 0 PPNA
<b>Dairy products</b> <b>②</b>	A+	PA = 20	PD = 3
	A-	ND = 6 incl. 0 PPND	NA = 33 incl. 0 PPNA
<b>Seafood products</b> <b>③</b>	A+	PA = 22	PD = 3
	A-	ND = 5 incl. 0 PPND	NA = 33 incl. 3 PPNA
<b>Vegetables</b> <b>④</b>	A+	PA = 19	PD = 6
	A-	ND = 7 incl. 0 PPND	NA = 32 incl. 0 PPNA
<b>Environmental samples</b> <b>⑤</b>	A+	PA = 28	PD = 0
	A-	ND = 2 incl. 1 PPND	NA = 39 incl. 4 PPNA
<b>Specific ingredients</b> <b>⑥</b>	A+	PA = 17	PD = 6
	A-	ND = 6 incl. 0 PPND	NA = 31 incl. 0 PPNA
<b>Animal feed and pet food</b> <b>⑦</b>	A+	PA = 23	PD = 4
	A-	ND = 5 incl. 0 PPND	NA = 33 incl. 0 PPNA
<b>Milk powder, infant formula, infant cereals and related ingredients</b> <b>⑧</b>	A+	PA = 21	PD = 6
	A-	ND = 6 incl. 0 PPND	NA = 30 incl. 0 PPNA
<b>Cocoa and chocolate products</b> <b>⑨</b>	A+	PA = 43	PD = 0
	A-	ND = 0 incl. 0 PPND	NA = 38 incl. 0 PPNA
<b>Cocoa and chocolate products</b> <b>⑩</b>	A+	PA = 39	PD = 8
	A-	ND = 4 incl. 0 PPND	NA = 30 incl. 0 PPNA
<b>Categories</b> <b>①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨</b>	A+	<b>PA = 216</b>	<b>PD = 36</b>
	A-	<b>ND = 44 incl. 2 PPND</b>	<b>NA = 303 incl. 47 PPNA</b>
<b>Categories</b> <b>①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑩</b>	A+	<b>PA = 212</b>	<b>PD = 44</b>
	A-	<b>ND = 48 incl. 0 PPND</b>	<b>NA = 295 incl. 47 PPNA</b>

### 5.1.5. Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (PFR)

The set of results obtained were used to calculate the relative trueness, the sensitivity and the false positive ratio for each of the categories and for all the categories, according to the formulas set out in the EN ISO 16140-2:2016 standard (table 27).

Table 27: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method ( $SE_{alt}$ : sensitivity for the alternative method,  $SE_{ref}$ : sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method)

Categories	Type	PA	NA	ND	PD	N	PPND	PPNA	$SE_{alt}$	$SE_{ref}$	RT	FPR	
Meat products 25 g ①	a Raw meat products (frozen or fresh)	7	15	2	5	29	1	0	85,7%	64,3%	75,9%	6,7%	
	b Raw poultry (fresh or frozen)	6	10	4	3	23	0	0	69,2%	76,9%	69,6%	0,0%	
	c Raw delicatessen	10	9	1	0	20	0	0	90,9%	100,0%	95,0%	0,0%	
	<b>TOTAL</b>	<b>23</b>	<b>34</b>	<b>7</b>	<b>8</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>81,6%</b>	<b>78,9%</b>	<b>79,2%</b>	<b>2,9%</b>	
Milks and dairy products 25 g ②	a Pasteurized products	5	11	3	2	21	0	0	70,0%	80,0%	76,2%	0,0%	
	b Raw products	6	12	2	0	20	0	0	75,0%	100,0%	90,0%	0,0%	
	c Ingredients and low moisture products	9	10	1	1	21	0	0	90,9%	90,9%	90,5%	0,0%	
	<b>TOTAL</b>	<b>20</b>	<b>33</b>	<b>6</b>	<b>3</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>79,3%</b>	<b>89,7%</b>	<b>85,5%</b>	<b>0,0%</b>	
Seafood products 25 g ③	a Raw fishery products	8	11	1	0	20	0	0	89,7%	100,0%	95,0%	0,0%	
	b RTRH	10	10	0	0	20	0	0	100,0%	100,0%	100,0%	0,0%	
	c RTE	4	12	4	3	23	0	0	63,6%	72,7%	69,6%	0,0%	
	<b>TOTAL</b>	<b>22</b>	<b>33</b>	<b>5</b>	<b>3</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>83,3%</b>	<b>90,0%</b>	<b>87,3%</b>	<b>0,0%</b>	
Vegetables ④	a Raw vegetables (fresh, frozen)	8	9	2	1	20	0	0	81,8%	90,9%	85,0%	0,0%	
	b Processed, under atmosphere	4	12	2	2	20	0	0	75,0%	75,0%	80,0%	0,0%	
	c RTE	7	11	3	3	24	0	0	76,9%	76,9%	75,0%	0,0%	
	<b>TOTAL</b>	<b>19</b>	<b>32</b>	<b>7</b>	<b>6</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>78,1%</b>	<b>81,3%</b>	<b>79,7%</b>	<b>0,0%</b>	
Environmental samples ⑤	a Dusts and Residues	8	11	1	0	20	0	0	88,9%	100,0%	95,0%	0,0%	
	b Cleaning and Process Waters	11	9	0	0	20	0	0	100,0%	100,0%	100,0%	0,0%	
	c Surface samples	9	19	1	0	29	1	4	90,0%	100,0%	96,6%	26,3%	
	<b>TOTAL</b>	<b>28</b>	<b>39</b>	<b>2</b>	<b>0</b>	<b>69</b>	<b>1</b>	<b>4</b>	<b>93,3%</b>	<b>100,0%</b>	<b>97,1%</b>	<b>12,8%</b>	
Specific ingredients (25 g) ⑥	a Eggs	10	10	0	0	20	0	0	100,0%	100,0%	100,0%	0,0%	
	b Milk powders (cream, PIF without probiotic)	4	10	2	4	20	0	0	80,0%	60,0%	70,0%	0,0%	
	c Confectionary ingredients (honey, flour, etc...)	3	11	4	2	20	0	0	55,6%	77,8%	70,0%	0,0%	
	<b>TOTAL</b>	<b>17</b>	<b>31</b>	<b>6</b>	<b>6</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>79,3%</b>	<b>79,3%</b>	<b>80,0%</b>	<b>0,0%</b>	
Animal feed ⑦	a Pet food	13	11	1	0	25	0	0	92,9%	100,0%	96,0%	0,0%	
	b Animal feed (cereals and flour)	4	10	3	3	20	0	0	70,0%	70,0%	70,0%	0,0%	
	c Ingredients (powder)	6	12	1	1	20	0	0	87,5%	87,5%	90,0%	0,0%	
	<b>TOTAL</b>	<b>23</b>	<b>33</b>	<b>5</b>	<b>4</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>84,4%</b>	<b>87,5%</b>	<b>86,2%</b>	<b>0,0%</b>	
Milk powder 375 g ⑧	a Milk powder, Infant formula and infant cereals without probiotic:	9	9	1	1	20	0	0	90,9%	90,9%	90,0%	0,0%	
	b Infant formula and infant cereals with probiotics	8	9	2	3	22	0	0	84,6%	76,9%	77,3%	0,0%	
	c Ingredients (Maltodextrin, starch, whey, lactose...)	4	12	3	2	21	0	0	66,7%	77,8%	76,2%	0,0%	
	<b>TOTAL</b>	<b>21</b>	<b>30</b>	<b>6</b>	<b>6</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>81,8%</b>	<b>81,8%</b>	<b>81,0%</b>	<b>0,0%</b>	
Cocoa and chocolate products 375 g - pre-warmed UHT milk ⑨	a Cocoa powder	14	13	0	0	27	0	0	100,0%	100,0%	100,0%	0,0%	
	b Chocolate	15	12	0	0	27	0	0	100,0%	100,0%	100,0%	0,0%	
	c Raw materials (butter, liquor)	14	13	0	0	27	0	0	100,0%	100,0%	100,0%	0,0%	
	<b>TOTAL</b>	<b>43</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>100,0%</b>	<b>100,0%</b>	<b>100,0%</b>	<b>0,0%</b>	
Cocoa and chocolate products 375 g - pre-warmed BPW ⑩	a Cocoa powder	12	10	2	3	27	0	0	88,2%	82,4%	81,5%	0,0%	
	b Chocolate	13	10	2	2	27	0	0	88,2%	88,2%	85,2%	0,0%	
	c Raw materials (butter, liquor)	14	10	0	3	27	0	0	100,0%	82,4%	88,9%	0,0%	
	<b>TOTAL</b>	<b>39</b>	<b>30</b>	<b>4</b>	<b>8</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>92,2%</b>	<b>84,3%</b>	<b>85,2%</b>	<b>0,0%</b>	
<b>TOTAL ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨</b>			<b>216</b>	<b>303</b>	<b>44</b>	<b>36</b>	<b>599</b>	<b>2</b>	<b>4</b>	<b>85,1%</b>	<b>87,8%</b>	<b>86,6%</b>	<b>2,0%</b>
<b>TOTAL ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑩</b>			<b>212</b>	<b>295</b>	<b>48</b>	<b>44</b>	<b>599</b>	<b>2</b>	<b>4</b>	<b>84,2%</b>	<b>85,5%</b>	<b>84,6%</b>	<b>2,0%</b>

The results for all categories are summarized in the table 28 below.

*Table 28: summary of the results for all categories*

Parameter	Formula EN ISO 16140-2:2016	Results for categories 1, 2, 3, 4, 5, 6, 7, 8, 9	Results for categories 1, 2, 3, 4, 5, 6, 7, 8, 10
<b>Sensitivity of the alternative method (SE<sub>alt</sub>)</b>	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100 \%$	85.1 %	84.2 %
<b>Sensitivity of the reference method (SE<sub>ref</sub>)</b>	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100 \%$	87.8 %	85.5 %
<b>Relative trueness (RT)</b>	$RT = \frac{(PA + NA)}{N} \times 100 \%$	86.6 %	84.6 %
<b>False positive ratio (FPR)</b>	$FPR = \frac{FP}{NA} \times 100 \%$	2.0 %	2.0 %

#### 5.1.6. Analysis of discordant results

Discordant results are examined according to the standard EN ISO 16140-2:2016.

The negative deviations are given in table 29 and the positive deviations in table 30.

Table 29: summary of the negative deviations (blue: paired study design)

Category	Sample number	Sample	Type	Inoculation level	Salmonella Precis method						
					Latex test confirmation			ISO confirmation tests			
					Bri-lia-nce	Latex	Result	Concor-dance	Bioch. Tests	Result	Concor-dance
①	7477	Pork meat	a	/	-	/	A	ND	/	A	ND
	1534	Beef trim	a	1,6	+d	-	A	ND	-	A	ND
	7458	Chicken meat	b	/	-	/	A	ND	/	A	ND
	424	Chicken meat	b	/	-	/	A	ND	/	A	ND
	1191	Frozen poultry meat	b	/	-	/	A	ND	/	A	ND
	1194	Poultry meat	b	/	-	/	A	ND	/	A	ND
	1188	Sausages	c	/	-	/	A	ND	/	A	ND
②	486	Pasteurised milk cheese	a	1,6	+d/-	/	A	ND	/	A	ND
	489	Pasteurised cream	a	1,6	-	/	A	ND	/	A	ND
	779	Pasteurised half skimmed milk	a	3,0	-	/	A	ND	/	A	ND
	493	Raw milk cheese	b	2,0	-	/	A	ND	/	A	ND
	2461	Raw milk cheese	b	1,6	-	/	A	ND	/	A	ND
	328	Milk powder	c	0,6	-	/	A	ND	/	A	ND
③	6470	Fish fillets	a	0,6	-	/	A	ND	/	A	ND
	6472	Seafood terrine	c	0,6	-	/	A	ND	/	A	ND
	6016	RTE (salad surimi pine apple)	c	0,6	-	/	A	ND	/	A	ND
	7038	Salmon terrine	c	1,2	-	/	A	ND	/	A	ND
	7041	Fish terrine	c	2,0	-	/	A	ND	/	A	ND
④	6694	Fresh spinach	a	3,2	-	/	A	ND	/	A	ND
	6006	Zucchini	a	0,6	-	/	A	ND	/	A	ND
	6481	Salad mixture	b	0,6	-	/	A	ND	/	A	ND
	6696	Baby leaves	b	3,0	+md/-	/	A	ND	/	A	ND
	6013	Frozen cooked potatoes	c	1,0	-	/	A	ND	/	A	ND
	7044	RTE (sliced carrots)	c	1,8	-	/	A	ND	/	A	ND
⑤	7046	RTE (celery with custard)	c	1,8	-	/	A	ND	/	A	ND
	920	Dusts (pork/beef industry)	a	/	-	/	A	ND	/	A	ND
⑥	7728	Wipe (meat industry)	c	/	+d	+d	A	ND	- ( <i>Serratia marcescens</i> )	A	ND
⑥	1845157	Whole milk powder	b+	5,0	-	/	A	ND	-	A	ND
	1845161	Baby milk powder 10-36 months without probiotics	b+	5,0	-	/	A	ND	-	A	ND
	1845210	Violet syrup	c+	4,6	-	/	A	ND	-	A	ND
	1845211	Organic agave syrup	c+	4,6	-	/	A	ND	-	A	ND
	1845213	Sucrose	c+	4,6	-	/	A	ND	-	A	ND
	1845216	Liquid honey	c+	4,6	-	/	A	ND	-	A	ND
⑦	1854706	Food for guinea pigs	a+	4,2	-	-	A	ND	- ( <i>Citrobacter freundii</i> )	A	ND
	1778881	Pig food	b+	3,2	-	/	A	ND	-	A	ND
	1854779	Soybean meal	b+	3,0	-	/	A	ND	-	A	ND
	1854781	Lamb feed	b+	3,0	-	/	A	ND	-	A	ND
	1778886	Pea flour	c+	4,4	-	/	A	ND	-	A	ND
⑧	958	Skimmed milk powder	a	0,4	-	/	A	ND	/	A	ND
	963	Infant cereals with probiotics (5 cereals) $3,3 \cdot 10^5$ cfu/g	b	1,6	-	/	A	ND	/	A	ND
	1240	Infant formula with probiotics $1,3 \cdot 10^6$ cfu/g	b	3,4	-	/	A	ND	/	A	ND
	300	Whey powder	c	0,4	-	/	A	ND	/	A	ND
	303	Maltodextrin	c	1,8	-	/	A	ND	/	A	ND
	570	Wheat flour	c	1,2	-	/	A	ND	/	A	ND
⑩	364,7	Cocoa Powder	a+	0,4	-	/	A	ND	/	A	ND
	364,8	White Chocolate Chocolate Chip Muffin Mix	a+	1,0	-	/	A	ND	/	A	ND
	364,67	Dark Chcololate	b+	1,2	-	/	A	ND	/	A	ND
	364,68	Dark Chocolate	b+	2,0	-	/	A	ND	/	A	ND

Table 30: summary of the positive deviations (blue: paired study design)

Category	Sample number	Sample	Type	Inoculation level	Reference method						Salmonella Precis method					
					RVS		MKTn		Confir-mation	Result	Brilliance	Conf. Latex	Conf. ISO	Result	Concor-dance	
①	7469	Pork meat	a	/	-	-	-	-		/	A	+m/+	+	+	P	PD
	7472	Pork meat	a	/	-	-	-	-		/	A	+d/+	+	+	P	PD
	7474	Pork meat	a	/	-	-	-	-		/	A	+d/+	+	+	P	PD
	483	Veal meat	a	1,8	-	-	-	-		/	A	+1/2	+	+	P	PD
	484	Beef meat	a	3,0	+d/-	-	+d/-	-		/	A	+p	+	+	P	PD
	7464	Duck meat	b	/	-	-	-	-		/	A	+m/+	+	+	P	PD
	7465	Duck meat	b	/	+md (NC)	-	-	-		/	A	+m/+	+	+	P	PD
	7476	Turkey meat	b	/	+md (NC)	-	+d/-	-		/	A	+m/+	+	+	P	PD
②	781	Ice cream (vanilla)	a	1,2	st	st	st	st	/	A	+p	+	+	P	PD	
	783	Ice cream	a	2,2	st	st	st	st		/	A	+p	+	+	P	PD
③	327	Milk powder	c	1	st	st	st	st	/	A	+p	+	+	P	PD	
	6471	Surimi	c	0,6	st	st	st	st		/	A	+p	+	+	P	PD
	6473	Seafood terrine	c	0,6	st	st	st	st	/	A	+p	+	+	P	PD	
④	6015	RTE (salad rice tuna)	c	1,2	st	st	st	st	/	A	+p	+vw	+	P	PD	
	6693	Coriander	a	2,4	-	-	-	-		/	A	+m	+	+	P	PD
⑤	6008	Mixed vegetables under modified atmosphere	b	0,8	-	-	+md (C. youngae)	-	/	A	+m	+	+	P	PD	
	6010	Salad under modified atmosphere	b	1,0	-	-	-	-		/	A	+M	+	+	P	PD
	6476	Celery deli salad	c	0,8	st	st	st	st	/	A	+1/2	+	+	P	PD	
	6480	Celery deli salad	c	1,4	-	-	st	st		/	A	+M	+	+	P	PD
	7047	RTE (macedoine)	c	1,4	st	st	st	st	/	A	+p	+	+	P	PD	
⑥	1845158	Organic skim milk powder	b+	5,0	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	+ (BM)	+	+	P	PD	
	1845162	Baby powder 1-3 years without probiotics	b+	5,0	- (ØE)	- (ØE)	- (ØE)	- (ØE)		/	A	+ (AM)	+	+	P	PD
	1845163	Baby growth milk powder 3 with goat milk without probiotics	b+	4,0	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	+ (AM)	+	+	P	PD	
	1845166	Baby powder milk growth 1- 3 years without probiotics	b+	4,0	- (ØE)	- (ØE)	- (ØE)	- (ØE)		/	A	+ (AM)	+	+	P	PD
	1845215	Powder sweetener	c+	4,6	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	+ (AM)	+	+	P	PD	
	1845217	Honey	c+	4,6	- (ØE)	- (ØE)	- (ØE)	- (ØE)		/	A	+ (AM)	+	+	P	PD
⑦	1778882	Fish food	b+	3,2	-(EM)	- (ØE)	-(EM)	-(EM)	/	A	+ (BM)	+	+	P	PD	
	1854716	Barley granulet	b+	1,0	-(EL)	- (EL)	-(EM)	-(EM)		/	A	+ (BM)	+	+	P	PD
	1854780	Sheep feed	b+	3,0	-(EM)	- (EM)	-(EM)	-(EM)	/	A	+ (AM)	+	+	P	PD	
	1854709	Insect meal	c+	3,8	-(EM)	- (EM)	-(EM)	-(EM)		/	A	+ (DM)	+	+	P	PD
⑧	297	Skimmed milk powder	a	0,4	st	st	st	st	/	A	+p	+	+	P	PD	
	98	Infant formula with probiotics 7,2 10 <sup>6</sup> cfu/g	b	3,1	st	st	st	st		/	A	+p	+	+	P	PD
	309	Infant cereals with probiotics (5 cereals flavor) 1,8 10 <sup>6</sup> cfu/g	b	1,2	st	st	st	st	/	A	+p	+	+	P	PD	
	965	Infant cereals with probiotics (biscuit flavor) 4,9 104 cfu/g	b	1,4	-	-	-	-		/	A	+p	+	+	P	PD
	301	Caseinates	c	0,4	st	st	st	st	/	A	+p	+	+	P	PD	
	567	Barley flour	c	0,4	-	-	-	-		/	A	+m	+	+	P	PD
⑩	364,5	Cocoa Powder	a+	2,2	ng	ng	ng	ng	/	A	t	+	Salmonella	P	PD	
	364,6	Cocoa Powder	a+	2,8	ng	ng	ng	ng		/	A	t	+	Salmonella	P	PD
	364,18	Cocoa Powder	a+	2,8	ng	ng	ng	ng	/	A	t	+	Salmonella	P	PD	
	364,29	85% Cocoa Dark Chocolate	b+	1,8	ng	ng	at	ng		/	A	t	+	Salmonella	P	PD
	364,34	White Chocolate Chips	b+	2,6	ng	ng	ng	ng	/	A	t	+	Salmonella	P	PD	
	364,52	Cocoa Butter Refined	c+	2,2	ng	ng	ng	ng		/	A	t	+	Salmonella	P	PD
	364,53	Organic Cacao Paste	c+	3,4	ng	ng	ng	ng	/	A	t	+	Salmonella	P	PD	
	364,55	Organic Raw Cacao Beans	c+	2,6	at	ng	at	ng		/	A	t	+	Salmonella	P	PD

- **Unpaired study design**

Forty-six negative deviations were observed: 6 from naturally contaminated samples and 40 from artificially contaminated samples. For 10 samples, the presence of *Salmonella* in the alternative method broth was detected using the additional confirmation protocol of the ISO 16140-2 standard.

Forty-three positive deviations were observed: 6 from naturally contaminated samples and 37 from artificially contaminated samples.

In conclusion, 30 negative deviations and all 37 positive deviations most probably come from the nature of the study design. In an unpaired study, because of the difference of sampling between both methods, and the use of naturally contaminated samples or seeded samples with low levels of contamination, no cell of *Salmonella* may have been present in the sampling of one of the two methods.

- **Paired study design**

No positive deviation was observed.

Only two negative deviations were observed. The presence of *Salmonella* in the broth was detected using the confirmation protocol of the reference method.

#### **5.1.7. Calculation and interpretation of data**

Table 31 shows the difference between negative deviations and positive deviations and the acceptability limits.

Table 31: acceptability limits

Category	Type	ND	PD	Unpaired		Paired				Combined		
				(ND-PD)	AL	(ND-PD)	AL	(ND+PD)	AL	(ND-PD)	AL	
Meat products ①	a	2	5	-3	/					-3		
	b	4	3	1						1		
	c	1	0	1						1		
	Total	7	8	1	3					1		
Dairy products ②	a	2	3	2	/					1		
	b	2	0	2						2		
	c	1	1	0						0		
	Total	6	3	3	3					3		
Seafood products ③	a	1	0	1	/					1		
	b	0	0	0						0		
	c	4	3	1						1		
	Total	5	3	2	3					2		
Vegetables ④	a	2	1	1	/					1		
	b	2	2	0						0		
	c	3	3	0						0		
	Total	7	6	1	3					1		
Environmental samples ⑤	a	1	0	/	1		1		/	1		
	b	0	0		0		0			0		
	c	1	0		1		1			1		
	Total	2	0	2	3	2	3	2	6	2		
Specific ingredients ⑥	a	0	0	0	/					0		
	b	2	4	-2						-2		
	c	4	2	2						2		
	Total	6	6	0	3					0		
Animal feed and pet food (up to 150 g) ⑦	a	1	0	1	/					1		
	b	3	3	0						0		
	c	1	1	0						0		
	Total	5	4	1	3					1		
Milk powder, infant formula, infant cereals and related ingredients (up to 375 g) ⑧	a	1	1	0	/					0		
	b	2	3	-1						-1		
	c	3	2	1						1		
	Total	6	6	0	3					0		
Cocoa and chocolate (up to 375 g – ISO 6887-4:2017) ⑨	a	0	0	/	0		0		/	0		
	b	0	0		0		0			0		
	c	0	0		0		0			0		
	Total	0	0	0	3	0	-1	0	0	0		
Cocoa and chocolate (up to 375 g - pre-warmed BPW) ⑩	a	2	3	-1	/					-1		
	b	2	2	0						0		
	c	0	3	-3						-3		
	Total	4	8	-4	3					-4		
Categories ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨	Total	44	36					8		8		
Categories ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑩	Total	48	44					4		8		

The observed values (ND – PD) and (ND+PD) are below the acceptability limit for each category and for all categories. The alternative method produces results comparable to the reference method.

### 5.1.8. Enrichment broth storage at 2 – 8°C for 72 hours

A stability study of the enriched broths stored at  $5\pm3^\circ\text{C}$  for 72 hours was performed on all positive and discordant samples. After storage, the broths were reanalyzed and confirmed.

Table 32 shows the evolution of the results between the results of the broths analyzed before and after cold storage.

*Table 32: evolution of the results due to the cold storage*

Category	Type	N° sample	Before storage	After storage
① Meat products	a	7474	PD	NA
	b	1191	ND	PA
	c	1188	ND	PA
② Dairy products	a	779	PA	ND
③ Seafood products	a	6467	NA	PD
④ Vegetables	a	6693	PD	NA
	a	6694	ND	PA
	b	6477	NA	PD
	b	6481	ND	PA
	b	6696	ND	PA
	c	7044	ND	PA
⑤ Environmental samples	a	920	ND	PA
	c	7728	ND (PP)	PA
⑧ Milk powder, infant formula, infant cereals and related ingredients	a	958	ND	PA

Table 33 shows the difference between negative deviations and positive deviations and the acceptability limits.

Table 33: acceptability limits after a 72 h storage of the enrichment broths at 5±3°C

Category	Type	ND	PD	Unpaired		Paired				Combined								
				(ND-PD)	AL	(ND-PD)	AL	(ND+PD)	AL	(ND-PD)	AL							
Meat products ①	a	1	4	-3	/					-3								
	b	3	3	0						0								
	c	0	0	0						0								
	Total	4	7	-3						-3								
Dairy products ②	a	3	2	1	/					1								
	b	2	0	2						2								
	c	1	1	0						0								
	Total	6	3	3						3								
Seafood products ③	a	1	1	0	/					0								
	b	0	0	0						0								
	c	4	3	1						1								
	Total	5	4	1						1								
Vegetables ④	a	1	0	1	/					1								
	b	0	3	-3						-3								
	c	2	3	-1						-1								
	Total	3	6	-3						-3								
Environmental samples ⑤	a	0	0				0			0								
	b	0	0				0			0								
	c	0	0				0			0								
	Total	0	0				0			3	0							
Specific ingredients ⑥	a	0	0	0	/					0								
	b	2	4	-2						-2								
	c	4	2	2						2								
	Total	6	6	0						0								
Animal feed and pet food (up to 150 g) ⑦	a	1	0	1	/					1								
	b	3	3	0						0								
	c	1	1	0						0								
	Total	5	4	1						1								
Milk powder, infant formula, infant cereals and related ingredients (up to 375 g) ⑧	a	0	1	-1	/					-1								
	b	2	3	-1						-1								
	c	3	2	1						1								
	Total	5	6	-1						-1								
Cocoa and chocolate (up to 375 g - ISO 6887-4:2017) ⑨	a	0	0				0			0								
	b	0	0				0			0								
	c	0	0				0			0								
	Total	0	0				0			0	0							
Cocoa and chocolate (up to 375 g - pre-warmed BPW) ⑩	a	2	3	-1	/					-1								
	b	2	2	0						0								
	c	0	3	-3						-3								
	Total	4	8	-4						-4								
Categories ①,②,③,④,⑤,⑥,⑦,⑧,⑨	Total	34	36							-2	8							
Categories ①,②,③,④,⑤,⑥,⑦,⑧,⑩	Total	38	44							-6	8							

The alternative method produces results comparable to the reference method after storage of the broths for 3 days at 5±3°C.

### 5.1.9. Petri dish storage at 2 – 8°C for 72 hours

For the categories ⑥, ⑦, ⑨ and ⑩, the Petri dishes were stored for 3 days at 5±3 ° C. They were read again after storage and confirmed by the latex test. No difference was observed.

### 5.1.10. Conclusion of the sensitivity study

The statistical tests of the EN ISO 16140-2:2016 standard conclude that the alternative method produces comparable results to the reference method.

## 5.2. Relative level of detection study

### 5.2.1. Matrices used

Various "food matrix-strain" pairs were studied in parallel using the reference method and the alternative method, for the studied categories (cf. table 34).

*Table 34: couples matrix-strain for each category*

Category	Couple matrix strain	Origin of the strain	Study / Step of the validation
①	Raw chicken meat S. Bredeney 975	/	SureTect Salmonella PCR Method ISO 16140-2:2016 validation study data
②	Raw milk S. Ohio Ad1482	/	SureTect Salmonella PCR Method ISO 16140-2:2016 validation study data
③	Fish terrine S. Derby Ad1093	/	SureTect Salmonella PCR Method ISO 16140-2:2016 validation study data
④	Frozen spinach S. Virchow Ad1721	/	SureTect Salmonella PCR Method ISO 16140-2:2016 validation study data
⑤	Process water S. Livingstone A00L058	/	SureTect Salmonella PCR Method ISO 16140-2:2016 validation study data
⑥	Whole egg pasteurized S. Enteritidis GKD786	Egg products	Extension study Salmonella Precis Method according to ISO 16140-2:2016 standard
⑦	Kibbles S. Infantis EFG554	Poultry meat	Extension study Salmonella Precis Method according to ISO 16140-2:2016 standard
⑧	Infant formula with probiotics S. Mbandaka Ad1810	/	Extension study Salmonella SureTect PCR Method according to ISO 16140-2:2016 standard
⑨	Cocoa powder S. Infantis QL052016.18	/	Extension study Salmonella Precis Method according to ISO 16140-2:2016 standard
⑩	Cocoa powder S. Infantis QL052016.18	/	Extension study Salmonella Precis Method according to ISO 16140-2:2016 standard

The total flora of the matrix was determined and is set out in the results tables in Appendix J.

### **5.2.2. Contamination protocol**

Three levels of contamination were prepared consisting of a negative control level, a low level, and a higher level.

The negative control level shall not produce positive results. Five replicates were tested for this level. The low level shall be the theoretical detection level, it was contaminated at 0.7 - 1 CFU per test portion to obtain fractional recovery results. Twenty replicates were tested for this level.

The higher level shall be just above the theoretical detection level, it was contaminated at 2 - 3 CFU per test portion. Five replicates were tested for this level.

#### **5.2.2.1. Data from the SURETECT study**

For categories ①, ②, ③, ④, ⑤, the seeding protocol was used. Bulk contaminations were performed on the matrix for the different levels of contamination, then the matrix was stored at 5±3°C for two days before analysis. Samples were then analyzed by the reference and the alternative method.

For category ⑧ a lyophilized strain was used and the matrix was stored 2 weeks at room temperature.

#### **5.2.2.2. Extension study**

For categories ⑥ and ⑦ the seeding protocol was used. Bulk contaminations were performed on the matrix for the different levels of contamination, then the matrix was stored at 5±3°C for two days before analysis. Samples were then analyzed by the reference and the alternative method.

For categories ⑨ and ⑩, lyophilized strains were used and the matrix was stored for 2 weeks at room temperature.

### **5.2.3. Results**

The detailed results tables are set out in Appendix J.

The RLOD is defined as the ratio of the LODs of the alternative method and the reference method:  
RLOD= LOD<sub>alt</sub> / LOD<sub>ref</sub>.

The RLODs calculations were performed according to the standard ISO 16140-2:2016 using the Excel spreadsheet available for download at <http://standards.iso.org/iso/16140>, with unknown concentrations. Values of the RLODs are set out in table 35.

The combined RLODs values were calculated according to the weight of the test samples and to the study design.

*Table 35: RLODs values for all categories (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, b=ln(RLOD): logarithm of the RLOD value, sd(b): standard deviation of b, z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis H0: b=0, p-value: p-value of the z-Test)*

Category	RLOD	RLODL	RLODU	b=ln (RLOD)	sd(b)	z-Test statistic	p-value	AL
① Meat products	1.629	0.696	3.814	0.488	0.425	1.147	0.251	2.5
② Dairy products	0.761	0.326	1.777	-0.274	0.424	0.645	1.481	2.5
③ Seafood products	1.149	0.490	2.695	0.139	0.426	0.326	0.744	2.5
④ Vegetables products	1.000	0.385	2.599	0.000	0.478	0.000	1.000	2.5
⑤ Environmental samples	1.170	0.437	3.132	0.157	0.492	0.320	0.749	1.5
⑥ Specific ingredients	0.576	0.244	1.359	-0.552	0.430	1.285	1.801	2.5
⑦ Animal feed and pet food	1.152	0.471	2.817	0.142	0.447	0.316	0.752	2.5
⑧ Infant formula	0.195	0.084	0.456	-1.633	0.424	3.853	2.000	2.5
⑨ Cocoa & chocolate	1.321	0.590	2.956	0.278	0.403	0.690	0.490	1.5
⑩ Cocoa & chocolate	1.000	0.478	2.092	0.000	0.369	0.000	1.000	2.5
Combinated ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	0.872	0.669	1.137	-0.136	0.132	1.030	1.697	/
Combinated ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑩	0.851	0.654	1.109	-0.161	0.132	1.219	1.777	/

The LOD<sub>50</sub> calculations according to Wilrich & Wilrich POD-LOD calculation program - version 9, are given in table 36.

*Table 36: LOD50% for the alternative and reference method*

Matrix/Strain	LOD50% (CFU/per test) Alternative method	LOD50% (CFU/per test) Reference method
① Raw chicken meat / <i>S. Bredeney</i> 975	1.534	0.974
② Raw milk / <i>S. Ohio Ad1482</i>	0.687	0.866
③ Fish terrine / <i>S. Derby Ad1093</i>	0.976	0.869
④ Frozen spinach / <i>S. Virchow Ad1721</i>	0.861	0.861
⑤ Process water / <i>S. Livingstone A00L058</i>	0.779	0.694
⑥ Whole egg pasteurized / <i>S. Enteritidis GKD786</i>	0.389	0.620
⑦ Kibbles / <i>S. Infantis EFG554</i>	0.729	0.649
⑧ Infant formula with probiotics / <i>S. Mbandaka Ad1810</i>	0.892	5.058
⑨ Cocoa powder / <i>S. Infantis QL052016.18</i>	0.726	0.550
⑩ Cocoa powder / <i>S. Infantis QL052016.18</i>	0.550	0.550
Combinated ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	0.808	1.101
Combinated ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑩	0.786	1.101

#### **5.2.4. Interpretation and conclusion**

The RLODs values are below the acceptability limit set at 2.5 for “un-paired” categories and 1.5 for “paired”, categories meaning that, as stated in ISO 16140-2:2016, the maximum increase in LOD of the alternative versus the reference method is not considered as relevant in consideration of the fitness for purpose of the method.

In conclusion, alternative and reference methods show similar LODs values for the detection of *Salmonella* spp. in the categories tested.

### **5.3. Conclusion**

The comparative study of the methods was performed according to the EN ISO 16140-2:2016 standard.

- **Sensitivity study**

The performance of the *Salmonella* Precis Method was compared to that of the EN ISO 6579-1:2017 reference method by analyzing 599 samples divided into nine product categories.

The observed values (ND – PD) were below or equal to the acceptability limit for each category and for all categories after the initial test and after three days of conservation at  $5\pm3^{\circ}\text{C}$ .

Statistically, the alternative method produces results comparable to that of the reference method.

- **Relative level of detection study**

The relative detection level of the *Salmonella* Precis Method and reference method was evaluated by artificially contaminating seven different products.

The relative level of detection of the alternative method was between 0.576 and 1.629 cells per test portion.

The *Salmonella* Precis Method and the reference method showed similar LODs values for the detection of *Salmonella* spp. in the categories tested.

## 6. General conclusion

The data and the interpretation of the methods comparison study, of the interlaboratory study and of the extension study fulfill the requirements of the standard EN ISO 16140-2:2016. The Precis method is considered as equivalent to the standard EN ISO 6579-1/A1:2020.

Le Lion d'Angers, 5 May 2021.  
François Le Nestour  
Head of the Microbiology Department

A handwritten signature in black ink, appearing to read "F. N.", is enclosed within a stylized oval-shaped line.

## **APPENDICES**

## APPENDIX A

### **Salmonella Precis – Protocol for broad range of foods, feeds and environmental samples – Initial validation study**

#### **Enrichment**

Dilute 25 g sample in 225 mL ONE Broth-*Salmonella*  
or according to the ISO 6887 standards

Incubation: 18±2 h at 42±1°C

#### **Streaking**

Inoculate with a loop 10 µl on Brilliance *Salmonella*  
Incubation: 22-28 h at 34-38°C

#### **Reading of the plate**

Observe the presence of typical purple/pink colonies

#### **Confirmation**

By the tests described in the standardized methods  
Or by the realization of an Oxoid *Salmonella* Latex Test

#### **Expression of the results**

## APPENDIX A

### *Salmonella* Precis - Protocol tested in extension

**Broad range of foods:**

Dilute 25 g sample in  
225 mL BPW  
+ 12 mg/L novobiocin  
or according to the  
ISO 6887 standards\*

**Environment:**  
10/100/225 ml BPW

**Specific ingredients:**

Dilute 25 g sample in 225  
mL BPW + 12 mg/L  
novobiocin

**Animal feed:**

dilute 150 g sample in 1350  
ml pre-warmed BPW + 12  
mg/L novobiocin  
or according to the ISO  
6887 standards\*

**Cocoa and chocolate**

**products:**  
375g + 3375 ml pre-  
warmed UHT milk or  
re-constituted  
nonfat dried milk  
(100g/L water) and  
pre-warmed 3375 ml  
BPW

**Milk powders,  
infant formula,  
and infant cereals  
with and without  
probiotics:**  
375g + 3375 ml  
BPW + 6 mg/L  
vancomycin

Incubation:  
20-26 h at 34-38°C

Incubation:  
20-26 h at 34-38°C

Incubation:  
20-26 h at 34-38°C  
22-28 h at 34-38°C

Incubation:  
18-24 h at 34-38°C

**Streaking**

Inoculate with a loop 10 µl on Brilliance *Salmonella*  
Incubation: 22-28 h at 34-38°C

**Reading of the plate**

Observe the presence of typical purple/pink colonies

**Confirmation**

By the tests described in the standardized methods  
Or by the realization of an Oxoid *Salmonella* Latex Test

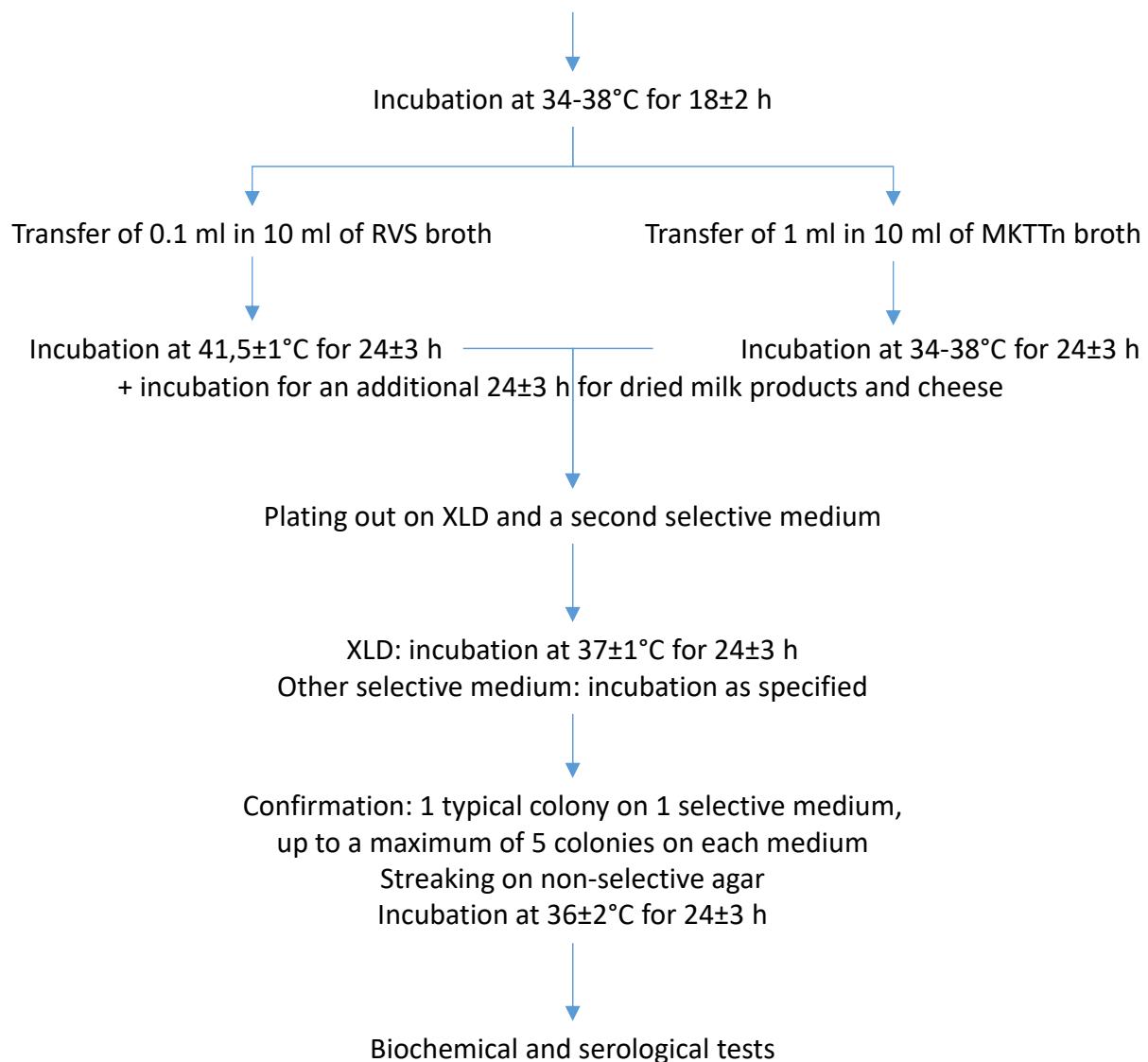
**Expression of the results**

- \* - products containing more than 20% fat: addition of Tween
- acid or acidifying products: use of a double buffered BPW
- starchy products: addition of alpha amylase at 0.1 g/L

**APPENDIX B**  
**EN ISO 6579-1:2017**

Diagram of the procedure as described in the standard

25 g of sample + 225 ml of buffered peptone water  
or 375 g of sample + 3375 ml pre-warmed buffered peptone water  
or according to the ISO 6887 standards \*



- products containing more than 20% fat: addition of Tween
- acid or acidifying products: use of a double buffered BPW
- starchy products: addition of alpha amylase at 0.1 g/L

**APPENDIX C**  
**Artificial contaminations - Initial validation study**

Sample #	Food item	Inoculations						Result	
		Strain		Stress applied	Stress value (log TSYEA-XLD)	Inoculation level (CFU/test portion)			
		Code	Origin						
1619	Wipe	Salmonella Anatum A00E007	Dairy dusts	TT 55°C-15 min	1.5	1.4	+		
1620	Wipe	Salmonella Anatum A00E007	Dairy dusts	TT 55°C-15 min	1.5	1.4	+		
1625	Wipe beginning of the line	Salmonella Anatum A00E007	Dairy dusts	TT 55°C-15 min	1.5	1.4	+		
1626	Wipe end of the line	Salmonella Anatum A00E007	Dairy dusts	TT 55°C-15 min	1.5	1.4	+		
2121	Raw milk	Salmonella Anatum Ad 298	Milk powder	TT 55°C 15min -20°C	0.53	4	-		
2122	Raw milk	Salmonella Anatum Ad 298	Milk powder	TT 55°C 15min -20°C	0.53	4	-		
2123	Raw milk	Salmonella Anatum Ad 298	Milk powder	TT 55°C 15min -20°C	0.53	4	-		
2124	Raw milk	Salmonella Anatum Ad 298	Milk powder	TT 55°C 15min -20°C	0.53	4	+		
2125	Raw milk	Salmonella Anatum Ad 298	Milk powder	TT 55°C 15min -20°C	0.53	4	+		
1267	Alaska pollock with tomatoes and basil	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.9	18.4	-		
1268	Smoked salmon	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.9	18.4	+		
1269	Smoked herring fillets	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.9	18.4	-		
1270	Salmon fillet	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.9	18.4	+		
1857	Milk powder	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.7	6.2	+		
1864	Vanilla ice-cream	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.7	6.2	+		
1865	Rhum raisin ice cream	Salmonella Anatum Ad298	Milk powder	TT 55°C-15 min	0.7	6.2	+		
1508	Smoked cod eggs	Salmonella arizona Ad478	Clams	TT 55°C-15 min	1.9	2	+		
1509	Seafood mix	Salmonella arizona Ad478	Clams	TT 55°C-15 min	1.9	2	+		
1510	Whiting fillet	Salmonella arizona Ad478	Clams	TT 55°C-15 min	1.9	2	-		
1511	marlin loin	Salmonella arizona Ad478	Clams	TT 55°C-15 min	1.9	2	+		
1980	Pork rillettes	Salmonella Bovismorbificans 132	Raw smoked bacon	TT 55°C-15 min	0.7	20	+		
1981	Montbéliard sausage	Salmonella Bovismorbificans 132	Raw smoked bacon	TT 55°C-15 min	0.7	20	+		
1982	Garlic dried sausage	Salmonella Bovismorbificans 132	Raw smoked bacon	TT 55°C-15 min	0.7	20	+		
1983	Cooked chicken wings	Salmonella Bovismorbificans 132	Raw smoked bacon	TT 55°C-15 min	0.7	20	+		
1607	Pasta and crayfish salad	Salmonella Brandenburg Ad351	Seafood mix	TT 55°C-15 min	1.2	2.2	+		
1608	Shrimps tabbouleh	Salmonella Brandenburg Ad351	Seafood mix	TT 55°C-15 min	1.2	2.2	+		
1609	Pineapples and carrots with surimi	Salmonella Brandenburg Ad351	Seafood mix	TT 55°C-15 min	1.2	2.2	+		
1618	Salmon fillet	Salmonella Brandenburg Ad351	Seafood mix	TT 55°C-15 min	1.2	2.2	+		
1858	Raw milk goat cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C-15 min	0.5	10.2	-		
1859	Raw milk Rocamadour cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C-15 min	0.5	10.2	-		
1860	Raw milk Sainte Maure de Touraine cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C-15 min	0.5	10.2	-		
1861	Raw milk goat cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C-15 min	0.5	10.2	-		
2126	Raw milk Saint Félicien cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C 15min -20°C	0.46	6.5	/		
2127	Raw milk Reblochon cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C 15min -20°C	0.46	6.5	-		
2128	Raw milk French Emmenthal cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C 15min -20°C	0.46	6.5	+		
2129	Raw milk Comté cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C 15min -20°C	0.46	6.5	+		
2130	Raw milk Comté cheese	Salmonella Dublin Ad 531	Raw milk cheese	TT 55°C 15min -20°C	0.46	6.5	+		

**APPENDIX C**  
**Artificial contaminations - Initial validation study**

Sample #	Food item	Inoculations					
		Strain		Stress applied	Stress value (log TSYEA-XLD)	Inoculation level (CFU/test portion)	Result
		Code	Origin				
2169	Raw liquid egg	Salmonella Enteritidis 10	Egg white powder	TT 55°C 15min -20°C	0.9	6	+
2173	Mayonnaise	Salmonella Enteritidis 10	Egg white powder	TT 55°C 15min -20°C	0.9	6	+
2174	Mayonnaise	Salmonella Enteritidis 10	Egg white powder	TT 55°C 15min -20°C	0.9	6	+
2165	Pork chops	Salmonella Enteritidis 23	Liquid egg	TT 55°C 15min -20°C	>1	1.6	+
2168	Veal minced meat	Salmonella Enteritidis 23	Liquid egg	TT 55°C 15min -20°C	>1	1.6	+
1992	Egg yolk powder	Salmonella Enteritidis 465	Liquid egg	TT 55°C 15min -20°C	0.5	2.2	+
1994	Pudding	Salmonella Enteritidis 465	Liquid egg	TT 55°C 15min -20°C	0.5	2.2	+
1512	Pudding	Salmonella Enteritidis 657	Liquid egg	TT 55°C-15 min	0.9	18.6	+
1513	Custard	Salmonella Enteritidis 657	Liquid egg	TT 55°C-15 min	0.9	18.6	+
1514	Custard	Salmonella Enteritidis 657	Liquid egg	TT 55°C-15 min	0.9	18.6	+
1515	Vanilla custard	Salmonella Enteritidis 657	Liquid egg	TT 55°C-15 min	0.9	18.6	+
1719	Mayonnaise	Salmonella Enteritidis 657	Liquid egg	-20°C	0.7	3	+
1720	Mayonnaise	Salmonella Enteritidis 657	Liquid egg	-20°C	0.7	3	+
1721	Mayonnaise	Salmonella Enteritidis 657	Liquid egg	-20°C	0.7	3	+
1504	Salmon fillet	Salmonella Indiana 2	Fishmeal	TT 55°C-15 min	1.5	15	+
1505	Raw salmon	Salmonella Indiana 2	Fishmeal	TT 55°C-15 min	1.5	15	+
1506	Norway smoked salmon	Salmonella Indiana 2	Fishmeal	TT 55°C-15 min	1.5	15	+
1507	Atlantic smoked salmon	Salmonella Indiana 2	Fishmeal	TT 55°C-15 min	1.5	15	+
1722	Butter and lemon sauce	Salmonella Indiana 2	Fishmeal	-20°C	0.5	4.8	+
1723	Rémoulade celery and surimi	Salmonella Indiana 2	Fishmeal	-20°C	0.5	4.8	+
1724	Smoked salmon	Salmonella Indiana 2	Fishmeal	-20°C	0.5	4.8	+
1993	Egg yolk powder	Salmonella Infantis 14	Pasteurized liquid egg	TT 55°C-15 min	1.2	3	+
1995	Pudding	Salmonella Infantis 14	Pasteurized liquid egg	TT 55°C-15 min	1.2	3	+
1868	Bone meal for pork	Salmonella Infantis 179	Animals	TT 55°C-15 min	0.4	32.6	+
1869	Bone meal for pork	Salmonella Infantis 179	Animals	TT 55°C-15 min	0.4	32.6	+
1872	Complete feed for dairy cow	Salmonella Infants 179	Animals	TT 55°C-15 min	0.4	32.6	+
1873	Complete feed for dairy cow	Salmonella Infants 179	Animals	TT 55°C-15 min	0.4	32.6	+
2026	Bone meal for pork	Salmonella Infantis 179	Animals	TT 55°C 15min -20°C	0.6	5.4	+
2027	Bone meal for pork	Salmonella Infantis 179	Animals	TT 55°C 15min -20°C	0.6	5.4	+
1181	Milk powder	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	>1.7	2	+
1182	Milk powder	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	>1.7	2	+
1185	Powdered infant formula	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	>1.7	2	+
1186	Powdered infant formula	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	>1.7	2	+
1621	Wipe	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	0.7	4	+
1622	Wipe ready-cooked dish workshop	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	0.7	4	+
1623	Wipe trolley	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	0.7	4	+
1624	Wipe ground	Salmonella Infantis 401B	Raw milk	TT 55°C-15 min	0.7	4	+

**APPENDIX C**  
**Artificial contaminations - Initial validation study**

Sample #	Food item	Inoculations						Result	
		Strain		Stress applied	Stress value (log TSYEA-XLD)	Inoculation level (CFU/test portion)			
		Code	Origin						
2028	Raw milk goat cheese	Salmonella Infantis F401B	Cheese	TT 55°C 15min -20°C	0.5	2.8	+		
2029	Raw milk goat cheese	Salmonella Infantis F4018	Cheese	TT 55°C 15min -20°C	0.5	2.8	+		
2030	Raw milk goat cheese with herbs	Salmonella Infantis F401B	Cheese	TT 55°C 15min -20°C	0.5	2.8	+		
2031	Raw milk crottin de Savignol cheese	Salmonella Infantis F401B	Cheese	TT 55°C 15min -20°C	0.5	2.8	+		
2164	Pork chops	Salmonella Livingstone E1	Egg white powder	TT 55°C 15min -20°C	0.7	3	+		
2166	Ground beef	Salmonella Livingstone E1	Egg white powder	TT 55°C 15min -20°C	0.7	3	+		
2167	Ground beef	Salmonella Livingstone E1	Egg white powder	TT 55°C 15min -20°C	0.7	3	+		
1496	Complete feed for dairy cow	Salmonella Livingstone F104	Animal feed	TT 55°C-15 min	2.6	1.2	-		
1497	Cat kibbles	Salmonella Livingstone F104	Animal feed	TT 55°C-15 min	2.6	1.2	+		
1498	Dog kibbles	Salmonella Livingstone F104	Animal feed	TT 55°C-15 min	2.6	1.2	+		
1499	Seeds for birds	Salmonella Livingstone F104	Animal feed	TT 55°C-15 min	2.6	1.2	+		
1729	Complete feed for bovines	Salmonella Livingstone F104	Animal feed	-20°C	0.6	5.6	+		
1730	Raw meat for animals	Salmonella Livingstone F104	Animal feed	-20°C	0.6	5.6	+		
1866	Complete feed for porks	Salmonella Livingstone F105	Animals	TT 55°C-15 min	0.5	18.4	+		
1867	Complete feed for porks	Salmonella Livingstone F105	Animals	TT 55°C-15 min	0.5	18.4	+		
1870	Complete feed for dairy cow	Salmonella Livingstone F105	Animals	TT 55°C-15 min	0.5	18.4	+		
1871	Complete feed for dairy cow	Salmonella Livingstone F105	Animals	TT 55°C-15 min	0.5	18.4	+		
1961	Raw meat for animals	Salmonella Livingstone F105	Animals	-20°C	0.47	4.2	+		
1976	Smoked bacon	Salmonella London 326	Cooked pork shoulder	TT 55°C-15 min	0.4	3	+		
1977	Country-style pâté	Salmonella London 326	Cooked pork shoulder	TT 55°C-15 min	0.4	3	+		
1978	Liver pâté	Salmonella London 326	Cooked pork shoulder	TT 55°C-15 min	0.4	3	+		
1979	Ham	Salmonella London 326	Cooked pork shoulder	TT 55°C-15 min	0.4	3	+		
2228	Pudding	Salmonella Mbandaka 81	Liquid egg	TT 55°C-15 min	1.06	/	+		
1854	Raw milk	Salmonella Meleagridis 505	Raw milk	TT 55°C-15 min	0.7	4.8	+		
1862	Coconut ice-cream	Salmonella Meleagridis 505	Raw milk	TT 55°C-15 min	0.7	4.8	+		
1863	Coffee ice-cream	Salmonella Meleagridis 505	Raw milk	TT 55°C-15 min	0.7	4.8	+		
1275	Raw milk Saint-Nectaire cheese	Salmonella Montevideo 305	Raw milk	TT 55°C-15 min	1.16	28.6	+		
1276	Tomme de Savoie	Salmonella Montevideo 305	Raw milk	TT 55°C-15 min	1.16	28.6	+		
1277	Raw milk goat cheese	Salmonella Montevideo 305	Raw milk	TT 55°C-15 min	1.16	28.6	+		
1855	Raw milk	Salmonella Montevideo 510	Raw milk	TT 55°C-15 min	0.6	3.2	-		
1856	Milk powder	Salmonella Montevideo 510	Raw milk	TT 55°C-15 min	0.6	3.2	+		
1183	Milk powder	Salmonella Newington 26	Dairy product	TT 55°C-15 min	>1.9	1.2	+		
1184	Milk powder	Salmonella Newington 26	Dairy product	TT 55°C-15 min	>1.9	1.2	+		
1187	Powdered infant formula	Salmonella Newington 26	Dairy product	TT 55°C-15 min	>1.9	1.2	+		
1188	Powdered infant formula	Salmonella Newington 26	Dairy product	TT 55°C-15 min	>1.9	1.2	+		
1799	Wipe maintenance premises	Salmonella Newport 586	Beef	pH 10 7 days + TT 55°C 10 min	0.4	7.8	+		
1800	Wipe exterior loose	Salmonella Newport 586	Beef	pH 10 7 days + TT 55°C 10 min	0.4	7.8	+		

**APPENDIX C**  
**Artificial contaminations - Initial validation study**

Sample #	Food item	Inoculations						Result	
		Strain		Stress applied	Stress value (log TSYEA-XLD)	Inoculation level (CFU/test portion)			
		Code	Origin						
1801	Dusts maintenance premises	Salmonella Newport 586	Beef	pH 10 7 days + TT 55°C 10 min	0.4	7.8	+		
1802	Wipe exterior loose	Salmonella Newport 586	Beef	pH 10 7 days + TT 55°C 10 min	0.4	7.8	+		
1811	Wipe puddle exterior loose	Salmonella Newport 586	Beef	pH 3 7 days + TT 55°C 10 min	1.8	2.4	+		
1812	Water exterior loose	Salmonella Newport 586	Beef	pH 3 7 days + TT 55°C 10 min	1.8	2.4	+		
1813	Wipe roof security rail	Salmonella Newport 586	Beef	pH 3 7 days + TT 55°C 10 min	1.8	2.4	+		
1814	Stagnant residual water	Salmonella Newport 586	Beef	pH 3 7 days + TT 55°C 10 min	1.8	2.4	+		
1960	Raw meat for animals	Salmonella Newport 586	Beef	-20°C	0.87	1.2	+		
1948	Wipe shelf spices powders	Salmonella Panama 8	Ground beef	-20°C	0.63	2	+		
1949	Wipe shelf room aromas spices	Salmonella Panama 8	Ground beef	-20°C	0.63	2	+		
1950	Wipe shelf cod room mraw materials	Salmonella Panama 8	Ground beef	-20°C	0.63	2	+		
1957	Wipe industrial waste trash	Salmonella Panama 8	Ground beef	-20°C	0.63	2	+		
1614	Tilapia fillet	Salmonella Saintpaul F31	Fish	TT 55°C-15 min	1.3	1.6	+		
1615	Panga fillet	Salmonella Saintpaul F31	Fish	TT 55°C-15 min	1.3	1.6	+		
1616	Saithe fillet	Salmonella Saintpaul F31	Fish	TT 55°C-15 min	1.3	1.6	+		
1617	Sardine fillet	Salmonella Saintpaul F31	Fish	TT 55°C-15 min	1.3	1.6	+		
2170	Raw liquid egg	Salmonella Seftenberg 1	Poultry environment	4-20°C	0.9	1.2	+		
2175	Mayonnaise	Salmonella Seftenberg 1	Poultry environment	-20°C	0.9	1.2	+		
1795	Raw milk	Salmonella Tennessee A00E006	Dairy dusts	pH 3 7 days + TT 55°C 10 min	0.8	7	+		
1796	Raw milk	Salmonella Tennessee A00E006	Dairy dusts	pH 3 7 days + TT 55°C 10 min	0.8	7	+		
1797	Raw milk	Salmonella Tennessee A00E006	Dairy dusts	pH 3 7 days + TT 55°C 10 min	0.8	7	+		
1798	Raw milk	Salmonella Tennessee A00E006	Dairy dusts	pH 3 7 days + TT 55°C 10 min	0.8	7	+		
1804	Workshop window sill	Salmonella Tennessee A00E006	Dairy dusts	pH 10 7 days + TT 55°C 10 min	0.4	7.2	+		
1805	Muds	Salmonella Tennessee A00E006	Dairy dusts	pH 10 7 days + TT 55°C 10 min	0.4	7.2	+		
1806	Roof tower 2	Salmonella Tennessee A00E006	Dairy dusts	pH 10 7 days + TT 55°C 10 min	0.4	7.2	+		
1807	Roof tower 1	Salmonella Tennessee A00E006	Dairy dusts	pH 10 7 days + TT 55°C 10 min	0.8	6.4	+		
1951	Wipe cold room seafood shelf	Salmonella Tennessee A00E006	Dairy dusts	-20°C	0.5	4.4	+		
1952	Wipe preparation table	Salmonella Tennessee A00E006	Dairy dusts	-20°C	0.5	4.4	+		
1953	Wipe dough preparation line	Salmonella Tennessee A00E006	Dairy dusts	-20°C	0.5	4.4	+		
1954	Wipe middle of the line	Salmonella Tennessee A00E006	Dairy dusts	-20°C	0.5	4.4	+		
1958	Siphon water	Salmonella Tennessee A00E006	Dairy dusts	-20°C	0.5	4.4	+		
1803	Roof	Salmonella Thompson AER301	Poultry	pH 10 7 days + TT 55°C 10 min	0.4	7.2	+		
1808	Mélange fiente et poudre au sol tank cru	Salmonella Thompson AER301	Poultry	pH 10 7 days + TT 55°C 10 min	0.8	6.4	+		
1809	Wipe turning device for pallets	Salmonella Thompson AER301	Poultry	pH 10 7 days + TT 55°C 10 min	0.8	6.4	+		
1810	Wipe conveyor unit	Salmonella Thompson AER301	Poultry	pH 10 7 days + TT 55°C 10 min	0.8	6.4	+		
1271	Raw milk	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.97	1.2	+		
1272	Raw milk	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.97	1.2	-		
1273	Raw milk	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.97	1.2	-		

**APPENDIX C**  
**Artificial contaminations - Initial validation study**

Sample #	Food item	Inoculations					
		Strain		Stress applied	Stress value (log TSYEA-XLD)	Inoculation level (CFU/test portion)	Result
		Code	Origin				
1274	Raw milk	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.97	1.2	-
1610	Pasta and surimi salad	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.7	3	+
1611	Salmon rillettes	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.7	3	+
1612	Paella with mussels and chorizo	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.7	3	+
1613	Cuttelfishes with tomatoes	Salmonella Typhimurium 305	Paella	TT 55°C-15 min	0.7	3	+
2229	Custard	Salmonella Typhimurium 472	Egg yolk	TT 55°C-15 min	0.9	/	+
1500	Sliced carrots	Salmonella Virchow F276	Curry	TT 55°C-15 min	>1.2	2.8	+
1501	Chopped spinach	Salmonella Virchow F276	Curry	TT 55°C-15 min	>1.2	2.8	+
1502	Bruxelles sprouts	Salmonella Virchow F276	Curry	TT 55°C-15 min	>1.2	2.8	+
1503	Sliced zucchini	Salmonella Virchow F276	Curry	TT 55°C-15 min	>1.2	2.8	+
1725	Southern-style pan	Salmonella Virchow F276	Curry	-20°C	0.8	3.6	+
1726	Bruxelles sprouts	Salmonella Virchow F276	Curry	-20°C	0.8	3.6	+
1727	Green bell pepper	Salmonella Virchow F276	Curry	-20°C	0.8	3.6	+
1728	Tomato basil sauce	Salmonella Virchow F276	Curry	-20°C	0.8	3.6	+

## APPENDIX C

### Artificial contaminations - Third renewal study

Strain	Code	Origin	Number of uses	Type of stress	Applied stress	Delta log	Affected samples	Contamination level
<i>Salmonella</i> Rubislaw	ZYV849	Food product	3	Spiking	15' at 56°C / cold water	0,76	1665835 1665836 1665837	3.3
<i>Salmonella</i> Enteritidis	GKD786	Egg products environment	5	Seeding	2 to 3 days at 5°C	/	1714561 1714562 1714563 1714564 1714565	3.0
<i>Salmonella</i> Gallinarum	ZQN811	Food product	3	Spiking	15' at 56°C / cold water	2,11	1665838 1665839 1665840	3.0
<i>Salmonella</i> Stanley	RBH447	Vegetals	3	Seeding	2 to 3 days at 5°C	/	1698423 1698424 1698425	2.0
<i>Salmonella</i> Enteritidis	MDD911	Ground beef	5	Seeding	2 to 3 days at 5°C	/	1698426 1698427 1698428 1698429 1698430	1.7
<i>Salmonella</i> Indiana	KBD891	Spinach turnovers	3	Seeding	2 to 3 days at 5°C	/	1698431 1698432 1698433	2.7
<i>Salmonella</i> Indiana	KBD891	Spinach turnovers	1	Seeding	2 to 3 days at 5°C	/	1726680	2.0
<i>Salmonella</i> Lille	ZTZ341	Ground beef	6	Seeding	2 to 3 days at 5°C	/	1698434 1698435 1698436 1698437 1698438 1698439	1.3
<i>Salmonella</i> Ibadan	CJF795	Raw swordfish	6	Seeding	2 to 3 days at 5°C	/	1698440 1698441 1698442 1698443 1698444 1714552	1.7
<i>Salmonella</i> Javiana	FDX459	Meats products	3	Seeding	2 to 3 days at 5°C	/	1714553 1714554 1714555	2.3
<i>Salmonella</i> Dublin	ZDP683	Raw cheese milk	6	Seeding	2 to 3 days at 5°C	/	1714556 1714557 1714558 1714559 1714560 1714566	1.67
<i>Salmonella</i> houtenae	ZNU025	Cooked cod	4	Seeding	2 to 3 days at 5°C	/	1714605 1714606 1714607 1714608	0.7
<i>Salmonella</i> houtenae	ZNU025	Cooked cod	2	Seeding	2 to 3 days at 5°C	/	1726682 1726687	3.3
<i>Salmonella</i> Aberdeen	ZRL146	Food product	1+2	Seeding	2 to 3 days at 5°C	/	1714609 1714614 1714615	1.7
<i>Salmonella</i> Tennessee	ZCB342	Meats products	1+2	Seeding	2 to 3 days at 5°C	/	1714610 1714612 1714613	1.3
<i>Salmonella</i> Orianenburg	ZLQ024	Vegetals	1+5	Seeding	2 to 3 days at 5°C	/	1714611	2.7
<i>Salmonella</i> salamae	ZHL075	Cereals	5	Seeding	2 to 3 days at 5°C	/	1714616 1714617 1714618 1714619 1714620	2.3
<i>Salmonella</i> Urbana	ZGK518	Food product	5	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	1,09	1714621 1714622 1714623 1714624 1714625	2.7
<i>Salmonella</i> Mbandaka	KSS580	Egg products environment	2	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	2,61	1714626 1714627	3.3
<i>Salmonella</i> Mbandaka	KSS580	Egg products environment	1	Seeding	2 to 3 days at 5°C	/	1726681	3.0
<i>Salmonella</i> Meleagridis	ZYP361	Food product	4	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	1,17	1714628 1714629 1714630 1714631	3.0
<i>Salmonella</i> Caracas	ZTL125	Spices	6	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	2,64	1714632 1714633 1714634 1714635 1714636 1714637	3.3
<i>Salmonella</i> Lexington	PAK637	Vanilla beans	3	Seeding	2 to 3 days at 5°C	/	1726688 1726689 1726690	3.3
<i>Salmonella</i> Michigan	ZMF746	Plant	4	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	2,65	1714638 1714639 1714640 1714641	2.3
<i>Salmonella</i> Blockley	YZC738	Chicken farming environment	3	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	2,35	1714642 1714643 1714644	2.7
<i>Salmonella</i> SIIa 48:z4,z23:-	ZCQ171	Food product	3	Spiking	20' at -80°C / 20' at 50°C x2 / 2h at 5°C	3,19	1714645 1714646 1714647	3.0
<i>Salmonella</i> Poona pomona	ZKG911	Cock	1	Seeding	2 to 3 days at 5°C	/	1726683	2.7
<i>Salmonella</i> Regent	ZCD125	Meats products	3	Seeding	2 to 3 days at 5°C	/	1726684 1726685 1726686	2.7
<i>Salmonella</i> indica	ZNE350	Environment	6	Seeding	2 to 3 days at 5°C	/	1726691 1726692 1726693 1726694 1726695 1726696	1.7

## APPENDIX C

### Artificial contaminations - Third renewal study

<b>Strain</b>	<b>Code</b>	<b>Origin</b>	<b>Number of uses</b>	<b>Type of stress</b>	<b>Applied stress</b>	<b>Delta log</b>	<b>Affected samples</b>	<b>Contamination level</b>
<i>Salmonella</i> Infantis	DGR133	Soy sprout	6	Spiking	15' at 56°C / cold water	1,95	1726699 1726700 1726701 1726702 1726703 1726704	2.3
<i>Salmonella</i> Gatineau	DHY380	Raw ginger	6	Spiking	15' at 56°C / cold water	0,65	1726705 1726706 1726710 1726711 1726712 1726713	3.3
<i>Salmonella</i> Give	JAW805	Vanilla pod powder	3	Spiking	15' at 56°C / cold water	1,02	1726707 1726708 1726709	3.0
<i>Salmonella</i> Minnesota		Food product	3	Spiking	15' at 56°C / cold water	1,87	1726714 1726715 1726716	3.3
<i>Salmonella</i> Cubana	ZTT014	Poultry environment	6	Seeding	2 to 3 days at 5°C	/	1726717 1726718 1726719 1726720 1726721 1726722	2.7
<i>Salmonella</i> Wandsworth	ZGD433	Food product	2	Spiking	30' at -24°C / 30' at T°ambient x2	2,37	1730231 1730232	0.8
<i>Salmonella</i> Wandsworth	ZGD434	Food product	4	Spiking	30' at -24°C / 30' at T°ambient x2	1,14	1726723 1726724 1726725 1726726	3.0
<i>Salmonella</i> Veneziana	ZGF788	Food product	2	Spiking	15' at 56°C / cold water	2,36	1730224 1730225	3.2
<i>Salmonella</i> Manhattan	ZCN340	Food product	5	Spiking	15' at 56°C / cold water	2,68	1730226 1730227 1730228 1730229 1730230	0.6
<i>Salmonella</i> Muenster	FRR884	Sea product	6	Seeding	2 to 3 days at 5°C	/	1730250 1730251 1730252 1730253 1730254 1730255	2.2

## **APPENDIX D**

### **Sensitivity raw results**

#### **Flora distribution**

A = pure culture of typical colonies  
B = mix of colonies with a majority of typical colonies  
C = mix of colonies with a minority of typical colonies  
D = mix of colonies with rare typical colonies  
E = absence of typical colonies  
(x) : x typical colonies of *Salmonella* if x < 5

#### **Bacterial burden**

Ø : no culture  
L = low  
M = medium  
H = high

## Sensitivity - Ready-to-eat and ready-to-reheat products

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference method: ISO 6579-1						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C					
						RVS		MKTn		Confirmation	Result	Latex test confirmation		Standard tests confirmation		RVS	R. Salm	Result	Concordance	Brilliance	Latex(+/-)	Result	Concordance				
						XLD	Hektoen	XLD	Hektoen			Brilliance	Latex(+/-)	Result	Concordance												
Initial study	1915	Pork rillettes	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1977	Country pâté	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1978	Liver mousse	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1979	Cooked ham	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1984	Cooked ham	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1985	Black pudding	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1986	Pie	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1987	Brioche with sausage filling	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1988	Pork rillettes	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1990	Ham steak	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1991	Cooked ham	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1607	Mix of pasta and crayfish	a	2.2	Spiking	+	+	-	+	+	P	+	+	P	PA	P	PA			**	+	P	PA				
	1608	Shrimps tabbouleh	a	2.2	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1609	Pineapple, carrots with surimi	a	2.2	Spiking	+	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND				
	1610	Pasta salad with surimi	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1611	Salmon rillettes	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1723	Celery remoulade with surimi	a	4.8	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1902	Piedmontese salad with ham	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1903	Strasbourg salad	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1112	Mayonnaise	a	/	/	-	-	-	-	+ 1 col (Proteus mirabilis)	-	A	+	+	P	PD	P	PD			**	+	P	PD			
	1113	Mayonnaise	a	/	/	+	+	+1col	-	-	P	**	+	P	PA	P	PA			*1col	+	P	PA				
	1114	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/						
	1115	Mayonnaise	a	/	/	+/	+/	-	+ 1 col (Proteus mirabilis)	+	P	+	+	P	PA	P	PA			**	+	P	PA				
	1116	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			-	/	A	NA				
	1384	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1385	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1386	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1387	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1388	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1481	Mayonnaise	a	/	/	-	-	-	-	+ (Proteus mirabilis)	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	
	1482	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1483	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1484	Mayonnaise	a	/	/	-	-	-	-	-	P	-	/	A	ND	A	ND			-	/	A	ND				
	1485	Mayonnaise	a	/	/	-	-	-	-	+ (Citrobacter braakii)	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	
	1486	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1487	Mayonnaise	a	/	/	-	-	-	-	+ (Citrobacter freundii)	+	+	P	-	/	A	ND	A	ND			-	/	A	ND		
	1719	Mayonnaise	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1720	Mayonnaise	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1721	Mayonnaise	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1759	Mayonnaise	a	/	/	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1760	Mayonnaise	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	2173	Mayonnaise	a	6.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2174	Mayonnaise	a	6.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2175	Mayonnaise	a	1.2	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2176	Mayonnaise	a	/	/	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2177	Mayonnaise	a	/	/	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1379	Custard	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1380	Custard	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1381	Custard	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1382	Custard	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1383	Custard	a	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1994	Flan	a	2.2	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1995	Flan	a	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2228	Flan	a	/	/	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2229	Custard	a	/	/	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1267	Alaska hake with tomatoes and basil	b	18.4	Spiking	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1612	Paella moules et chorizo	b	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1613	Seiches à la tomate	b	3.0	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1722	Lemon butter sauce	b	4.8	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1268	Smoked salmon	c	18.4	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			/	/	/	/	/	/		
	1508	Smoked cod egg	c	2.0	Spiking	+	+	+	+	+	P	+	-	A	ND	P	PA			+	-	A	ND				
	1509	Seafood cocktail	c	2.0	Spiking	+	+	+	+	+	P	+	-	A	ND	P	PA			+	-	A	ND				
	1724	Smoked salmon	c	4.8	Spiking	+	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1747	Smoked haddock fillet	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1905	Smoked salmon	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1906	Smoked Norwegian salmon	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		
	1269	Smoked herring fillet	c	18.4	Spiking	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/		

**Sensitivity - Ready-to-eat and ready-to-reheat products**

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017) ■						Salmonella Precis method						Confirmation additional ISO tests						Salmonella Precis method after 72H 4°C												
						RVS		MKTn		Confirmation		Result		Latex test confirmation			Standard tests confirmation			RVS			Result			Concordance			Brilliance		Latex(+/−)		Result		Concordance	
						XLD	Rapid Salm	XLD	Rapid Salm					Brilliance	Latex(+/−)	Result	Concordance	Bioch.	Result	Concordance	XLD	R. Salm					Brilliance	Latex(+/−)	Result	Concordance						
R e n e w a w a l s t u d y	1660026	Chicken sandwich	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660027	Fish terrine	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660033	Garlic sausage	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660035	Salmon shell	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660037	Sea tabbouleh	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660044	Pastry cabbage	a	/	/	Ø	Ø	Ø	Ø	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1660071	Pineapple, strawberry, orange	a	/	/	Ø	Ø	Ø	Ø	/	A	EH	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	/	/	/					
	1660072	Seasoned carrots and celery	a	/	/	EL	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/					
	1698423	Potatoes, carrots and ham	a	2,0	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA	BM	+	P	PA	BM	+				
	1698424	Tabbouleh	a	2,0	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BL	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA	BM	+	P	PA	BM	+				
	1698426	Salmon and arugula	a	2,0	Seeding	BM	BM	BM	BM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA	BM	+	P	PA	BM	+				
	1698427	Tuna sandwich	a	2,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698431	Coffee eclair	a	2,66	Seeding	CM	CM	CM	CM	Salmonella spp.	P	EL	/	A	ND	/	A	ND	CM	CM	P	PA	EL	/	A	ND	CM	+	P	PA	EL	/				
	1698432	Pastry cabbage	a	2,66	Seeding	BM	BM	BM	BM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	BM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698433	Crisp raspberry lemon	a	2,66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698434	Ham sandwich	a	1,33	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA	BM	+	P	PA	BM	+				
	1714609	Flan	a	1,66	Seeding	BM	BM	BH	BH	Salmonella spp.	P	CM	+	P	PA	Salm spp	P	PA	AH	AM	P	PA	BM	+	P	PA	AM	+	P	PA	AM	+				
	1714610	Piedmontese salad	a	1,33	Seeding	EM	EM	EM	EM	Salmonella spp.	P	PD	/	A	BM	+	P	PD	AM	AM	P	PD	BM	+	P	PD	AM	+	P	PD	BM	+				
	1726646	Tabbouleh	a	/	/	EL	EL	EL	EL	Salmonella spp.	P	AM	+	P	PD	Salm spp	P	PD	AM	AM	P	PD	AM	+	P	PD	AM	+	P	PD	AM	+				
	1726680	Cooked prawns	a	2,0	Seeding	Ø	Ø	Ø	Ø	Salmonella spp.	P	AM	+	P	PD	Salm spp	P	PD	AM	AM	P	PD	AM	+	P	PD	AM	+	P	PD	AM	+				
	1726681	Chocolate mousse	a	3,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1660031	Ground beef, carrots, turnips	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1660034	Crust with ragout of veal	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1660046	Three cheese bruschetta	b	/	/	EL	EL	EL	EL	Ø	/	A	Ø	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	/	/	/				
	1660061	Stuffed tomatoes	b	/	/	EM	EL	EL	EM	Ø	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1660068	Mussels	b	/	/	EL	Ø	EL	EM	Ø	/	A	EH	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	/	/	/				
	1660073	Pizza ham cheese	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	/	/	/				
	1698425	Chorizo, zucchini and tomatoes pie	b	2,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698428	Provencal tuna pizza	b	2,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	BL	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698429	Scallop shell	b	2,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698430	Salmon and hake gratin with pasta	b	2,0	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AL	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698435	Chicken curry	b	1,33	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698437	Beef bourguignon	b	1,33	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698437	Croque-monsieur	b	1,33	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698438	Bouchée à la reine	b	1,33	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1698439	Mushroom and bacon bruschetta	b	1,33	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	AL	AM	P	PA	BM	+	P	PA	AM	+	P	PA	BM	+				
	1714566	Puff pastry with goat cheese	b	1,66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+				
	1717015	Veal stew	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1717018	Zucchini gratin	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1717017	Ham and cheese patty	b	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1660036	Marinated prawns	c	/	/	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1660047	Smoked trout	c	/	/	EL	EL	EL	EL	Ø	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/	/	/	/	/	/				
	1698444	Smoked mackerel with pepper	c	1,66	Seeding	AM	AM	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AL	+	P	PA	AM	+	P	PA	AL	+		
	1698442	Sliced smoked salmon	c	1,66	Seeding	AL	AL	AL	AL	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AL	AM	P	PA	AL	+	P	PA	AM	+	P	PA	AL	+				
	1698443	Smoked mackerel with pepper	c	1,66	Seeding	AM	AM	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+		
	1698444	Smoked herring	c	1,66	Seeding	AM	AM	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA	AM	+		
	1714552	Organic smoked trout	c	1,66	Seeding	AM	AM</																													

**Sensitivity - Meat products**

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579 (2002)						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C				
												Latex test confirmation				Standard tests confirmation										
						XLD	Hektoen	XLD	Hektoen	XLD	Hektoen	Confirmation	Result	Brilliance	Latex(+-)	Result	Concordance	Result	Concordance	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+-)	Result
Institutional study	1389	Viennese turkey cutlet	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1390	Ground beef	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1392	Ground veal cutlet	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1393	Ground veal cutlet	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1394	Ground veal cutlet	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1761	White meat	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1762	White meat	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1763	White meat	a	/	/	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD				
	1764	Chopped steak	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1765	Chopped steak	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1916	White meat	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1917	Chopped steak	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1918	White meat	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1919	Bolognese minced meat	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1921	Raw beef	a	/	/	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND				
	2016	Hing legs of pit	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2017	Hing legs of pit	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2018	Hing legs of pit	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2024	Pork paunch	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2025	Pork paunch	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2032	Ground beef	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2033	Ground beef	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2034	Bolognese minced meat	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2035	Frozen pork stir-fry	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2036	Frozen pork stir-fry	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2164	Pork chop	a	3,0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2165	Pork chop	a	1,6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2166	Ground beef	a	3,0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2167	Ground beef	a	3,0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2168	Veal chopped steak	a	1,6	Spiking	+	-	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1093	White poultry meat	b	/	/	+/-	+	+1col	-	P	+	*#	P	PA	P	PA			*#	+	P	PA				
	1094	White poultry meat	b	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1095	White poultry meat	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1096	White poultry meat	b	/	/	+	+	+	+	P	+	*#	P	PA	P	PA			*#1col	+	P	PA				
	1097	Hen with skin	b	/	/	+	+	+	+/-	P	+	+	P	PA	P	PA			+	+	P	PA				
	1098	Hen with skin	b	/	/	-	+	-	+/-	P	+	+	P	PA	P	PA			+	+	P	PA				
	1194	Pieces of hen	b	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1766	Skin neck hen	b	/	/	+ (Citrobacter youngae)	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1920	Hen with skin	b	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	2019	Chicken thigh	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2020	Chicken thigh	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2021	Chicken drumsticks	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2022	Chicken fillets	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2023	Turkey escalope	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	1391	Veal sausage	c	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1395	Dried sausage	c	/	/	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1976	Smoked bacon	c	3,0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA				
	1989	Andouillettes	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2068	Pork sausage	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				
	2069	Pork sausage	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/				

**Sensitivity - Meat products**

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)■						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C								
												Latex test confirmation				Standard tests confirmation														
						XLD	Rapid Salm	XLD	Rapid Salm	EM	Citrobacter brakii	- / - / -	A	BH	+	P	PD	Salm. spp.	P	PD	BH	BH	P	PD	BH	+	P	PD		
R e n e w a l s t u d y	1660028	Raw marinated pork	a	/	/	DH Hafnia alvei	DH Hafnia alvei	DH Hafnia alvei	Rapid Salm	EM	EM	/	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660032	Raw beef and pork steak	a	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660041	Raw veal chop	a	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660048	Raw veal chop	a	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660052	Raw pork chop with lemon pepper	a	/	/	EL	Ø	EM	EL	/	/	A	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660054	Wild boar fillet with pepper	a	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660055	Piece of raw pork	a	/	/	EL	Ø	EM	EL	/	/	A	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660062	Sirloin steak	a	/	/	EL	Ø	EM	EL	/	/	A	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1660053	Raw brined chicken meat	b	/	/	CH	CH	BH	BH	Salmonella spp.	P	CM	+	P	PA	Salmonella spp.	P	PA	CL	CL	P	PA	CM	+	P	PA	/	/	/	/
	1660056	Turkey escalope	b	/	/	DH	EL	EH	EH	Salmonella spp.	P	CM	+	P	PA	Salmonella spp.	P	PA	BL	BL	P	PA	CM	+	P	PA	/	/	/	/
	1726650	Turkey leg	b	/	/	EL	EL	EL	EL	/	/	A	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/		
	1726651	Mechanically separated meat	b	/	/	EL	EL	EL	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/		
	1726652	Chicken thigh	b	/	/	EL	EL	EL	EL	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1726653	Turkey leg	b	2.66	Seeding	BH	BH	DH	DH	Salmonella spp.	P	DM	+	P	PA	Salmonella spp.	P	PA	EM	DM	P	PA	DM	+	P	PA	/	/	/	/
	1660024	Chorizo	c	/	/	EL	EL	EL	EL	/	/	A	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	A	NA		
	1660064	Sausage	c	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1714553	Plain bacon	c	2.33	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salmonella spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	/	/	/	/
	1714554	Smoked duck matches	c	2.33	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salmonella spp.	P	PA	BM	BM	P	PA	BM	+	P	PA	/	/	/	/
	1714555	Sausage	c	2.33	Seeding	BM	BM	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salmonella spp.	P	PA	BM	BM	P	PA	DM	+	P	PA	/	/	/	/
	1714612	Smoked sausage	c	1.33	Seeding	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salmonella spp.	P	PA	AM	AM	P	PA	BM	+	P	PA	/	/	/	/
	1714613	Chorizo	c	1.33	Seeding	Ø	Ø	Ø	Ø	/	/	A	A	EM	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/		
	1717018	Crépinette	c	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/		
	1717019	Sausage	c	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/		
	1725652	Smoked bacon	c	/	/	Ø	Ø	Ø	Ø	/	/	A	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/		
	1725654	Merguez	c	/	/	EM	EM	EM	EM	/	/	A	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/		
	1726684	Marbled head	c	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salmonella spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	/	/	/	/
	1726685	Salami	c	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AH	+	P	PA	Salmonella spp.	P	PA	AL	AL	P	PA	AM	+	P	PA	/	/	/	/
	1726686	Brine pork shank	c	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salmonella spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	/	/	/	/

## Sensitivity - Dairy products

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579 (2002)						Salmonella Precis method						Confirmation additional ISO tests			Salmonella Precis method after 72H 4°C						
												Latex test confirmation			Standard tests confirmation												
						RVS	XLD	Hektoen	XLD	Hektoen	Confirmation	Result	Brilliance	Latex(+-)	Result	Concordance	Result	Concordance	RVS	R. Salm	Result	Concordance	Brilliance	Latex(+-)	Result	Concordance	
Initial study	1136	Vanilla ice cream	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1137	Ice cream coffee	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1862	Coconut ice cream	a	4.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1863	Ice cream coffee	a	4.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1864	Vanilla ice cream	a	6.2	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1865	Grape rum ice cream	a	6.2	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1255	Raw milk	b	/	/	-	-	-	-	-	-	A	+ (light col.: Citrobacter koseri)	-	A (FP)	NA (PP)	A (FP)	NA (PP)					+*(-)	/	A	NA	
	1256	Raw milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1257	Raw milk	b	/	/	-	-	-	+ (Citrobacter youngae)	+ (not typical on nutrient agar)	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1258	Raw milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1259	Raw milk	b	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD					+*	+	P	PD	
	1260	Raw milk	b	/	/	-	-	+ (Citrobacter youngae)	+ (not typical on nutrient agar)	-	A	-	/	A	NA	A	NA					/	/	/	/		
	1261	Raw milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1262	Raw milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1263	Raw milk	b	/	/	-	-	-	-	-	-	A	+/- (light: Enterobacter cloacae)	-	A (FP)	NA (PP)	A (FP)	NA (PP)					+*(-)	/	A	NA	
	1264	Raw milk	b	/	/	-	-	-	-	-	-	A	+1col(-)	/	A (FP)	NA (PP)	A (FP)	NA (PP)					-	/	A	NA	
	1265	Raw milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1266	Raw milk	b	/	/	-	+ (Citrobacter youngae)	+ (Citrobacter youngae)	+ (Citrobacter youngae)	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1271	Raw milk	b	1.2	Spiking	-	-	-	-	-	-	A	+* (2 types of colonies: pale and dark)	+ (for the 2 types of colonies)	P	PD	P (tests effectués sur colonie foncée)		PD					+* (pale: identified S. arizona)	+	P	PD
	1272	Raw milk	b	1.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1273	Raw milk	b	1.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1274	Raw milk	b	1.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1791	Raw milk tank	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1792	Raw milk	b	/	/	+ (Citrobacter youngae)	-	+ (Citrobacter youngae)	+ (Citrobacter youngae)	+	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1793	Raw whole milk	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1794	Raw milk tank	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1854	Raw milk	b	4.8	Spiking	-	-	-	-	-	-	A	+	+	P	PD	P	PD					+	+	P	PD	
	1855	Raw milk	b	3.2	Spiking	-	-	-	-	-	-	A	-	-	A	NA	A	NA					-	/	A	NA	
	1858	Raw milk goat cheese	b	10.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1859	Rocamadour with raw milk	b	10.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1860	Sainte Maure de Touraine with raw milk	b	10.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1861	Raw milk goat cheese	b	10.2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	2028	Raw milk goat cheese	b	2.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2029	Raw milk goat cheese	b	2.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2030	Raw milk goat cheese with herbs	b	2.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2031	Crottin de chèvre de Savignol au lait cru	b	2.8	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2121	Raw milk	b	4.0	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	2122	Raw milk	b	4.0	Spiking	-	-	-	-	-	-	P	+	+	P	PA	P	PA					+	+	P	PA	
	2123	Raw milk	b	4.0	Spiking	-	-	-	-	-	-	P	-	/	A	ND	A	ND					-	/	A	ND	
	2124	Raw milk	b	4.0	Spiking	-	-	-	-	-	-	P	+	+	P	PA	P	PA					+	+	P	PA	
	2125	Raw milk	b	4.0	Spiking	-	+	-	-	-	-	P	+	+	P	PA	P	PA					+	+	P	PA	
	2126	Saint Félicien with raw milk	b	6.5	Spiking	-	-	-	-	-	-	A	-	-	A	NA	A	NA					/	/	/	/	
	2127	Raw milk reblochon	b	6.5	Spiking	-	-	-	-	-	-	A	-	-	A	NA	A	NA					/	/	/	/	
	2128	Raw milk emmental	b	6.5	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2129	Raw milk comté	b	6.5	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	2130	Raw milk comté	b	6.5	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1138	Milk powder	c	/	-	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1139	Milk powder	c	/	-	-	-	-	-	-	-	A	-	/	A	NA	A	NA					/	/	/	/	
	1181	Milk powder	c	2.0	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1182	Milk powder	c	2.0	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1183	Milk powder	c	1.2	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1184	Milk powder	c	1.2	Spiking	+	+	+	+	+	+	P	+	-	/	A	ND	A	ND					-	/	A	ND
	1185	Milk powder	c	3.2	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	
	1187	Milk powder	c	6.2	Spiking	+	+	+	+	+	+	P	+	+	P	PA	P	PA					+	+	P	PA	

Sensitivity - Dairy products

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)■					Salmonella Precis method							Confirmation additional ISO tests				Salmonella Precis method after 72h 4°C					
											Latex test confirmation				Standard tests confirmation												
						RVS	XLD	Rapid Salm	XLD	MKTn	Rapid Salm	Confirmation	Result	Brilliance	Latex(+/-)	Result	Concordance	Bioch.	Result	Concordance	RVS	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+/-)
R e n e w a l i s t u d y	1660063	Mountain cheese with pasteurized milk	a	/	/	EL	EL	EL	EL		/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1660069	Fo Epi with pasteurized milk	a	/	/	EL	EL	EL	EM		/	A	EH	/	A	NA	/	A	NA	EM	EL	A	NA	/	/	/	/
	1660070	St Agur with pasteurized milk	a	/	/	EM	EM	EM	EM		/	A	EH	/	A	NA	/	A	NA	EM	EL	A	NA	/	/	/	/
	1663718	Caramel cream	a	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1663719	Ice cream coffee	a	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1714556	Plain farm yogurt	a	1,66	Seeding	AM	AM	AM	AM		Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714557	Milk rice	a	1,66	Seeding	AM	AM	AM	AM		Salmonella spp.	P	CM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	CM	+	P	PA
	1714558	Fresh cream	a	1,66	Seeding	AM	AM	AM	AM		Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714559	Cumin gouda	a	1,66	Seeding	BM	BM	BM	BM		Salmonella spp.	P	DL	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	DL	+	P	PA
	1714560	Vieux painé with pasteurized milk	a	1,66	Seeding	AM	AM	AM	AM		Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	AM	+	P	PA
	1714614	Carré d'Auillac with pasteurized milk	a	1,66	Seeding	BH	BH	BM	BM		Salmonella spp.	P	AL	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714615	Butter	a	1,66	Seeding	BH	BH	BM	BM		Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1726655	Semi-skimmed milk	a	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726657	Mascarpone	a	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726658	St Albray with pasteurized milk	a	/	/	EL	EL	EL	EL		/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1660042	Bleu de Gex with raw milk	b	/	/	EL	EL	EL	EL		/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1660045	Raw cow milk	b	/	/	EL	EL	EL	EL		/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1660060	Whole milk powder	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1714628	Powdered lactoserum	c	3,0	Spiking	AH	AH	AH	AH		Salmonella spp.	P	AH	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714629	Semi-skimmed milk powder	c	3,0	Spiking	AH	AH	AH	AH		Salmonella spp.	P	AH	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714630	Powdered whole milk	c	3,0	Spiking	AH	AH	AH	AH		Salmonella spp.	P	AH	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1714631	Organic skimmed milk powder	c	3,0	Spiking	AH	AH	AH	AH		Salmonella spp.	P	AH	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1726659	Concentrated liquid lactoserum	c	/	/	Ø	Ø	Ø	Ø		/	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1726660	Powdered lactoserum	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726661	Powdered whole milk	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726662	Semi-skimmed milk powder	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726663	Organic skimmed milk powder	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726667	Powder caseinate	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1665838	Powdered whole milk	c	3,0	Spiking	AM	AM	AH	AH		Salmonella spp.	P	AH	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AH	+	P	PA
	1665839	Semi-skimmed milk powder	c	3,0	Spiking	AM	AM	AH	AH		Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AH	+	P	PA
	1746477	Skimmed milk powder	c	/	/	Ø	Ø	Ø	Ø		/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1665840	Organic skinned milk powder	c	3,0	Spiking	AL	AL	Ø	Ø		Salmonella spp.	P	Ø	/	A	ND	/	A	ND	Ø	Ø	A	ND	Ø	Ø	A	ND

Sensitivity - Seafood and vegetables

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference Method ISO 6579 (2002)					Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C				
						RVS		MKTn		Confirmation	Result	Latex test confirmation			Standard tests confirmation			RVS	R. Salm	Result	Concordance	Brilliance	Latex(+/-)	Result	Concordance
						XLD	Hektoen	XLD	Hektoen			Brilliance	Latex(+/-)	Result	Concordance	Result	Concordance								
	1270	Salmon fillet	a	18.4	Spiking	+	+	+	+	P	-	/	A	ND	A	ND			/	/	/	/	/	/	/
	1510	Merlan fillet	a	2.0	Spiking	-	-	-	-	A	-	/	A	NA	A	NA			-	/	A	NA			
	1511	Marlin loin	a	2.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
	1614	Tilapia fillet	a	1.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
	1615	Pangas fillet	a	1.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
	1616	Saithe fillet	a	1.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
	1617	Sardine fillet	a	1.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
	1618	Salmon steak	a	2.2	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1745	Hake paver	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1746	Stringray fillet	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1749	Pangas fillet	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1907	Pangas fillet	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1908	Tilapia	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1909	Sardine	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1910	Saithe	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1725	Pan-fried southern vegetables	b	3.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1728	Tomato and basil sauce	b	3.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1912	Pan-fried country vegetables	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1500	Sliced carrots	c	2.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1501	Chopped spinach	c	2.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1502	Brussel sprouts	c	2.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1503	Zucchini slices	c	2.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1726	Brussel sprouts	c	3.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1727	Green peppers	c	3.6	Spiking	+	+	+	+	P	+	+	P	PA	P	PA			+	+	P	PA			
I	1743	Minced onions	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1744	Sliced carrots	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1748	Broccoli	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1750	Butter beans	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1751	Turnip cube	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1752	Red peppers	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1904	Mixed vegetables	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1911	Vegetables julienne	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1913	Spinach branch	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	1914	Cooked rice	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	2064	Vegetables julienne	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	2065	Green peppers	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	2066	Diced tomato	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/
I	2067	Broccoli	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	/	/	/

Sensitivity - Seafood and vegetables

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)■					Salmonella Precis method						Confirmation additional ISO tests					Salmonella Precis method after 72H 4°C				
											Latex test confirmation				Standard tests confirmation											
						XLD	Rapid Salm	XLD	MKTn	Rapid Salm	Confirmation	Result	Brilliance	Latex(+-)	Result	Concordance	Bioch.	Result	Concordance							
	1660020	Raw fish skewer	a	/	/	EL	Ø	EL	Ø	/	A	Ø	/	A	NA	/	A	NA	/	A	NA	/	/	/	/	/
	1660029	Saber fillet	a	/	/	EL	EL	EL	EL	/	A	EL	/	A	NA	/	A	NA	/	EL	Ø	A	NA	/	/	/
	1660067	Cooked peeled shrimp	a	/	/	EL	EL	EM	EL	/	A	EH	/	A	NA	/	A	NA	/	EL	Ø	A	NA	/	/	/
	1714605	Tuna loin	a	0.66	Seedling	DM	EM	CM	EM	Salmonella spp.	P	EM	/	A	ND	/	A	ND	EM	EM	A	ND	EM	/	A	ND
	1714606	Sardine fillet	a	0.66	Seedling	BM	EM	BM	EM	Salmonella spp.	P	DL	+	P	PA	Salm spp	P	PA	DL	BL	P	PA	CM	+	P	PA
	1714607	Cod fillet	a	0.66	Seedling	AM	AM	BM	EM	Salmonella spp.	P	EM	/	A	ND	/	A	ND	AM	AM	P	PA	CM	+	P	PA
	1714608	Julienné fillet	a	0.66	Seedling	BM	BM	BM	BM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	BM	+	P	PA
	1726687	Cooked peeled shrimp	a	3.33	Seedling	AH	AH	AH	AH	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA
	1730250	Salmon	a	2.2	Seedling	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA
	1730251	Cod fillet	a	2.2	Seedling	EL	EL	EL	EL	/	A	AM	+	P	PD	Salm spp	P	PD	AM	AM	P	PD	AM	+	P	PD
	1730252	Tuna	a	2.2	Seedling	EL	Ø	EL	EL	/	A	BM	+	P	PD	Salm spp	P	PD	AM	AM	P	PD	BM	+	P	PD
	1730253	Saithe	a	2.2	Seedling	AM	AM	AM	AM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA
	1730254	Whiting	a	2.2	Seedling	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA
	1730255	Cod	a	2.2	Seedling	AM	AM	AM	AM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA
	1726663	Chive	b	/	/	EL	EL	EL	EL	/	A	EH	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1726664	Basil	b	/	/	EL	EL	EL	EL	/	A	EH	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1726665	Mung beans sprouts	b	/	/	EL	EL	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	A	NA
	1730226	Sunflower sprouts	b	0.6	Spiking	EM	EL	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	A	NA
	1730227	Alfalfa sprouts	b	0.6	Spiking	EM	EM	EM	EM	/	A	EM	/	A	NA	/	A	NA	CM	CM	P	PD	EM	/	A	NA
	1730228	Alfalfa cress sprouts	b	0.6	Spiking	EM	EM	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	A	NA
	1730229	Leeks sprouts	b	0.6	Spiking	EM	EM	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	A	NA
	1730230	Radish sprouts	b	0.6	Spiking	EM	EM	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	A	NA
	1726669	Fresh mint	b	/	/	EL	EL	EM	EM	/	A	Ø	/	A	NA	/	A	NA	EL	Ø	A	NA	EL	/	/	/
	1726670	Fresh coriander	b	/	/	BM	EM	EH	EH	Proteus mirabilis	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	EM	/	/	/
	1726671	Sage	b	/	/	EL	EL	EL	EL	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	/	/
	1726672	Rosemary	b	/	/	Ø	EL	EL	EL	/	A	EL	/	A	NA	/	A	NA	EL	EM	A	NA	EM	/	/	/
	1726673	Basil	b	/	/	DL	EL	EM	EM	Proteus mirabilis	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	EM	/	/	/
	1726674	Tarragon	b	/	/	DL	EL	EH	EH	Proteus mirabilis	A	EM	/	A	NA	/	A	NA	CM	EM	A	NA	EM	/	/	/
	1726699	Mung beans sprouts	b	2.33	Spiking	DM	DM	DM	DM	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	DL	DL	P	PA	DM	+	P	PA
	1726700	Fresh mint	b	2.33	Spiking	EM	EM	BM	EM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	DM	DM	P	PA	BM	+	P	PA
	1726701	Oregano	b	2.33	Spiking	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	DL	DL	P	PA	DM	+	P	PA
	1726702	Parsley	b	2.33	Spiking	DM	DL	DM	DM	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	CM	CM	P	PA	DM	+	P	PA
	1726703	Savory	b	2.33	Spiking	BL	BL	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	DM	+	P	PA
	1726704	Basil	b	2.33	Spiking	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	AM	AM	P	PA	AM	+	P	PA
	1726705	Sorrel	b	3.33	Spiking	BM	BM	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	AM	AL	P	PA	DM	+	P	PA
	1726706	Spinach leaves	b	3.33	Spiking	EL	EL	CM	CM	Salmonella spp.	P	BM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA
	1660040	Raw melon	c	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	Ø	Ø	A	NA	/	/	/	/	
	1660043	Mixed salad	c	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	Ø	Ø	A	NA	/	/	/	/	
	1660065	Sliced white cabbage	c	/	/	EL	EL	EL	EL	/	A	Ø	/	A	NA	/	A	NA	EL	Ø	A	NA	/	/	/	/
	1714611	Grated carrots	c	2.66	Seedling	BH	BH	BM	BM	Salmonella spp.	P	AM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	BM	+	P	PA
	1726688	Spinach	c	3.33	Seedling	DM	DM	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	BM	BM	P	PA	CM	+	P	PA
	1726689	Fresh fruit juice	c	3.33	Seedling	AH	AH	AH	AH	Salmonella spp.	P	AH	+	P	PA	Salm spp	P	PA	AH	AH	P	PA	AM	+	P	PA
	1726690	Mix of carrots and leeks	c	3.33	Seedling	AH	AH	AH	AH	Salmonella spp.	P	DM	+	P	PA	Salm spp	P	PA	DL	DL	P	PA	DM	+	P	PA

**Sensitivity - Specific ingredients and foods**

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579 (2002)						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C				
						RVS		MKTn		Confirmation	Result	Latex test confirmation			Standard tests confirmation											
						XLD	Hektoen	XLD	Hektoen			Brilliance	Latex(+/)	Result	Concordance	Result	Concordance	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+/)	Result	Concordance	
Inhibition study	1140	Infant milk powder	b	/	/	-	-	-	-	-	A	/	A	NA	A	NA			/	/	/	/	/	/	/	
	1185	Infant milk powder	b	2.0	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1186	Infant milk powder	b	2.0	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1187	Infant milk powder	b	1.2	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1188	Infant milk powder	b	1.2	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1109	Whole egg powder	c	/	/	-	-	-	-	-	A	-	A	NA	A	NA			/	/	/	/				
	1110	Egg yolk powder	c	/	/	-	-	-	-	-	A	-	A	NA	A	NA			/	/	/	/				
	1111	Egg yolk powder	c	/	/	-	-	-	-	-	A	-	A	NA	A	NA			/	/	/	/				
	1992	Egg yolk powder	c	2.2	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1993	Egg yolk powder	c	3.0	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	1355	Liquid raw egg	c	/	/	-	+ (Citrobacter youngae)	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1356	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1357	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1358	Liquid raw egg	c	/	/	-	-	-	-	-	+ (NC)	-	-	A	NA	A	NA			/	/	/	/			
	1359	Liquid raw egg	c	/	/	+ red (Providencia rettgeri)	-	(Providencia morganii)	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1474	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1475	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1476	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1477	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1478	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1479	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	ND	A	ND			-	/	A	ND			
	1480	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	1755	Liquid raw egg	c	/	/	-	+ (P.	+ (P.	+ (P.	+ (P.	+ (P.	P	+	P	PA	P	PA			+	+	P	PA			
	1756	Liquid raw egg	c	/	/	-	+ (P.	+ (P.	+ (P.	+ (P.	+ (P.	P	+	P	PA	P	PA			+	+	P	PA			
	1757	Liquid raw egg	c	/	/	-	+ (P.	+ (P.	+ (P.	+ (P.	+ (P.	P	+	P	PA	P	PA			+	+	P	PA			
	1758	Liquid raw egg	c	/	/	-	+ (P.	+ (P.	+ (P.	+ (P.	+ (P.	P	+	P	PA	P	PA			+	-/-(ISO)	P	PA			
	2076	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2077	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2078	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2079	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2080	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2081	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2082	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2083	Liquid raw egg	c	/	/	+ (Citrobacter youngae)	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2084	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2169	Liquid raw egg	c	6.0	Spiking	+	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	2170	Liquid raw egg	c	1.2	Spiking	+	-	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				
	2171	Liquid raw egg	c	/	/	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/			
	2172	Liquid raw egg	c	/	/	-	+	+	+	+	P	+	P	PA	P	PA			+	+	P	PA				

Study	Sample number	Produit	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)■						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C								
						Latex test confirmation				Standard tests confirmation				Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C												
						RVS	XLD	Rapid Salm	MKTn	XLD	Rapid Salm	Confirmation	Result	Brilliance	Latex(+/-)	Result	Concordance	Bioch.	Result	Concordance	RVS	XLD	R.Salm	Result	Concordance	Brilliance	Latex(+/-)	Result	Concordance	
R e n e w e w a i s t u d y	1663711	Dehydrated organic thyme	a	/	/	Ø	Ø	EL	EL	Ø	Ø	/	A	EM	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/	
	1663712	Dehydrated peppermint	a	/	/	EL	EL	EL	EL	/	/	A	EH	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663713	Caramel and white chocolate	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663714	Pistachio and white chocolate	a	/	/	EM	EM	EM	EM	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663715	Ginger and lemon chocolate	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663716	Thermised nutmeg powder	a	/	/	EM	EM	EM	EM	/	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663717	Thermised curry powder	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1714632	Paprika	a	3.33	Spiking	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1714633	White pepper	a	3.33	Spiking	BM	BM	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salm spp.	P	PA	CM	P	PA	DM	+	P	PA	DM	+	P	PA	
	1714634	Cayenne pepper	a	3.33	Spiking	CM	CM	CM	CM	Salmonella spp.	P	CL	+	P	PA	Salm spp.	P	PA	CM	CM	P	PA	CM	+	P	PA	CM	+	P	PA
	1714635	Curry	a	3.33	Spiking	Ø	Ø	Ø	Ø	/	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/	/	/	/
	1714636	Oriental spices	a	3.33	Spiking	Ø	Ø	Ø	Ø	/	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/	/	/	
	1714637	Rosemary	a	3.33	Spiking	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1714638	Thyme	a	2.33	Spiking	EL	EL	EL	EL	/	/	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	
	1714639	Sweet mint	a	2.33	Spiking	EM	EM	EM	EM	/	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/	/	/	
	1714640	Piper mint	a	2.33	Spiking	DM	DM	DM	DM	Salmonella spp.	P	DM	+	P	PA	Salm spp.	P	PA	CM	CM	P	PA	DM	+	P	PA	DM	+	P	PA
	1714641	Dehydrated organic thyme	a	2.33	Spiking	EL	EL	EL	EL	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/	
	1717012	Thyme	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1717013	Dehydrated paprika	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1717014	Dehydrated rosemary powder	a	/	/	EL	EL	EL	EL	/	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1726707	Dehydrated herbs of provenance	a	3.0	Spiking	EL	EL	EL	EL	Ø	Ø	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/	
	1726708	Dehydrated thyme	a	3.0	Spiking	EM	EM	EM	EM	/	/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/	/	/	
	1726709	Curry powder	a	3.0	Spiking	Ø	Ø	Ø	Ø	/	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1726710	Paprika powder	a	3.33	Spiking	Ø	Ø	Ø	Ø	/	/	A	EL	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1726711	Oriental spices	a	3.33	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726712	Dehydrated rosemary powder	a	3.33	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726713	Cocoa powder	a	3.33	Spiking	AM	AM	AM	AM	Salmonella spp.	P	EL	-	A	ND	/	A	ND	Ø	Ø	A	ND	Ø	/	A	ND	Ø	/	A	ND
	1726723	Cocoa powder	a	3.0	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726724	Cocoa powder	a	3.0	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726725	Cocoa powder	a	3.0	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726726	Cocoa powder	a	3.0	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726727	Cocoa powder	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1726728	Cocoa powder	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1726729	Cocoa powder	a	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1730231	Raw cocoa beans	a	0.8	Spiking	Ø	Ø	Ø	Ø	/	/	A	BM	+	P	PD	Salm spp.	P	PD	BM	P	PD	BM	+	P	PD	BM	+	P	PD
	1730232	Raw cocoa beans	a	0.8	Spiking	Ø	Ø	Ø	Ø	/	/	A	AM	+	P	PD	Salm spp.	P	PD	AM	P	PD	AM	+	P	PD	AM	+	P	PD
	1660049	Infant vanilla cereal powder	b	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1660050	Infant cereal powder	b	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1660058	Infant formula milk powder	b	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1714645	Infant formula (6 months at 1 year) with probiotics B. lactic	b	3.0	Spiking	CL	CL	CL	CL	Salmonella spp.	P	DM	+	P	PA	Salm spp.	P	PA	AL	AL	P	PA	AM	+	P	PA	AM	+	P	PA
	1714646	Infant formula (10 months at 3 years) with probiotics S. thermophilus	b	3.0	Spiking	DM	CL	BL	BM	Salmonella spp.	P	DL	+	P	PA	Salm spp.	P	PA	CL	CL	P	PA	CM	+	P	PA	CM	+	P	PA
	1714647	Infant formula (6 months at 1 year) with probiotics L. reuteri	b	3.0	Spiking	DM	DL	BM	BM	Salmonella spp.	P	CL	+	P	PA	Salm spp.	P	PA	CL	CL	P	PA	CL	+	P	PA	CL	+	P	PA
	1730224	Infant formula (6 months at 1 year) with probiotics Bifidobacterium	b	3.2	Spiking	AM	AM	AM	AM	Salmonella spp.	P	Ø	/	A	ND	/	A	ND	Ø	Ø	A	ND	Ø	/	A	ND	Ø	/	A	ND
	1726714	Infant formula (10 months at 3 years) with probiotics B. lactic	b	3.2	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1726715	Preparation for cereals infant	b	3.33	Spiking	AM	AL	AM	AM	Salmonella spp.	P	Ø	/	A	ND	/	A	ND	Ø	Ø	A	ND	Ø	/	A	ND	Ø	/	A	ND
	1726716	Cereal and vegetable infant formula	b	3.33	Spiking	AM	AM	AM	AM	Salmonella spp.	P	AL	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA	AM	+	P	PA
	1660051	Pasteurized powdered egg yolk	c	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1660057	Pasteurized powdered egg white	c	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1660058	Pasteurized whole egg powder	c	/	/	Ø	Ø	Ø	Ø	/	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663720	Pasteurized liquid egg yolk	c	/	/	EL	EL	EL	EL	Ø	Ø	/	A	Ø	/	A	NA	/	A	EL	EL	A	NA	/	/	/	/			
	1663721	Pasteurized and sweet liquid egg yolk 30%	c	/	/	Ø	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	Ø	Ø	Ø	A	NA	/	/	/	/		
	1663722	Pasteurized and salted liquid egg yolk 8%	c	/	/	Ø	Ø	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	Ø	Ø	Ø	A	NA	/	/				

## Sensitivity study - Feed products

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference method: ISO 6579 (2002)					Salmonella Precis method				Confirmation additional ISO tests			Salmonella Precis method after 72H 4°C							
											Latex test confirmation			Standard tests confirmation											
						XLD	Hektoen	XLD	MKTn	Hektoen	Confirmation	Result	Brilliance	Latex(+/−)	Result	Concordance	Result	Concordance	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+/−)	Result
Initial study	1117	Raw beef for animals	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1118	Raw beef for animals	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1119	Poultry sausage for dog	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1120	Chicken, liver and vegetables terrine for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1121	Beef terrine for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1122	Poultry terrine for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1123	Rabbit dumpling for cats	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1124	Meats dumpling for cats	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1125	Hamster pellets	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1126	Pellets for birds	a	/	/	-	-	-	-	-	-	A	+?	(pale grey)	+ (Enterobacter cloacae)	A (FP)	NA (PP)	A (FP)	NA (PP)			/	/	/	/
	1128	Meats and vegetables kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1129	Chicken and carrots kibbles for kittens	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1130	Fish kibbles for cats	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1131	Poultry kibbles for cats	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1190	Raw beef for animals	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+*	+	P	PA	
	1191	Bone for animals	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+*	+	P	PA	
	1192	Bone for animals	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+*	+	P	PA	
	1193	Hen pieces	a	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1278	Sausage for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1279	Bouchées for dog	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1280	Raw meat for animals	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1281	Beef kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1282	Dogfood with beef	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1283	Raw meat for animals	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1488	Kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1489	Kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	P	PA	P	PA			+	+	P	PA	
	1490	Kibbles for dogs	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1491	Kibbles for dogs	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1492	Kibbles for dogs	a	/	/	-	-	-	-	-	-	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1493	Kibbles for dogs	a	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1497	Kibbles for cats	a	1,2	Spiking	+	+	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND	
	1498	Kibbles for dogs	a	1,2	Spiking	+	+	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND	
	1499	Bird seeds	a	1,2	Spiking	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1599	Fish oil kibbles	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1600	Fish oil kibbles	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1601	Kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1602	Kibbles for dogs	a	/	/	-	-	-	-	-	-	A	-	/	P	PD	P	PD			+	+	P	PD	
	1603	Kibbles for dogs	a	/	/	+ (Citrobacter youngae)	+ (Citrobacter youngae)	-	-	-	-	A	-	/	A	NA	A	NA			-	/	A	NA	
	1604	Fish oil kibbles	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1605	Fish oil kibbles	a	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1606	Fish oil kibbles	a	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			-	/	A	NA	
	1127	Cereal for rabbit	b	/	/	-	-	-	-	-	-	A	+*	(small colonies)	-	A (FP)	NA (PP)	A (FP)	NA (PP)			/	/	/	/
	1132	Feed supplement for dairy cow	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1133	Feed supplement for young cattle	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1134	Feed supplement for dairy cow	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1135	Complete feed for piglets	b	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1496	Complete feed for dairy cow	b	1,2	Spiking	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	A	NA	
	1729	Complete feed for cattle	b	5,6	Spiking	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	2026	Bone meal for pork	b	5,4	Spiking	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	2027	Bone meal for pork	b	5,4	Spiking	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1099	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND	
	1100	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1101	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1102	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1103	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1104	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	-	/	A	ND	A	ND			-	/	A	ND	
	1105	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1106	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1107	Bone meal (pet food)	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1108	Bone meal (pet food)	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1171	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1172	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1173	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1174	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1175	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	-	/	A	ND	A	ND			/	/	A	ND	
	1176	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1177	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1178	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	-	/	A	ND	A	ND			/	/	A	ND	
	1179	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1180	Farine de viande (pet food)	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1730	Vlaide crue pour animaux	c	5,6	Spiking	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1753	Dehydrated poultry protein	c	/	/	+	+	+	+	+	+	P	+*	+	P	PA	P	PA			+	+	P	PA	
	1754	Dehydrated poultry protein	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1874	Organic bone meal	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1875	Bone meal for destruction	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/	/	/	/	
	1876	Bone meal Pet food	c	/	/	-	-	-	-	-	-	A	+	+	P	PD	P	PD			+	+	P	PD	
	1877	Bone meal Pet food	c	/	/	-	-	-	-	-	-	A	-	/	A	NA	A	NA			/</				

**Sensitivity study - Feed products**

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)■						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C				
												Latex test confirmation			Standard tests confirmation											
						RVS		MKTn		Confirmation	Result	Brilliance	Latex(+-)	Result	Concordance	Bioch.	Result	Concordance	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+-)	Result	Concordance
R	1660059	Kibbles for kittens	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
e	1714567	Oat pellets	b	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
n	1714568	Colza oilcake	b	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
e	1714569	Food for piglet	b	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
w	1714570	Pig food	b	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
w	1714571	Soy	b	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	A	NA
a	1714616	Colza oilcake	b	2.33	Spiking	EM	EM	BM	DM	Salmonella spp.	A	BM	+	P	PD	Salm spp.	P	PD	DM	BM	P	PD	BL	+	P	PD
i	1714617	Oat pellets	b	2.33	Spiking	EM	BM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AL	+	P	PA
s	1714618	Food for piglet	b	2.33	Spiking	BM	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	BM	+	P	PA
t	1714619	Pig food	b	2.33	Spiking	CM	BM	BM	BM	Salmonella spp.	P	BL	+	P	PA	Salm spp.	P	PA	DM	DM	P	PA	CL	+	P	PA
u	1714620	Soy	b	2.33	Spiking	EM	DM	BM	BM	Salmonella spp.	P	BL	+	P	PA	Salm spp.	P	PA	DM	DM	P	PA	CM	+	P	PA
d	1714642	Granulated soy	b	2.66	Spiking	DM	DM	DM	DM	Salmonella spp.	P	CM	+	P	PA	Salm spp.	P	PA	DM	DM	P	PA	DM	+	P	PA
d	1714643	Granulated oat	b	2.66	Spiking	DM	BM	AM	AM	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
y	1714644	Pellets for pig	b	2.66	Spiking	Ø	Ø	DL	DL	Salmonella spp.	P	CL	+	P	PA	Salm spp.	P	PA	DL	DL	P	PA	DM	+	P	PA

Sensitivity study - Environmental samples

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference Method ISO 6579 (2002)						Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C				
						RVS		MKTn		Confirmation	Result	Latex test confirmation			Standard tests confirmation			RVS	R. Salm	Result	Concordance	Brilliance	Latex(+-)	Result	Concordance	
						XLD	Hektoen	XLD	Hektoen			Brilliance	Latex(+-)	Result	Concordance	Result	Concordance	XLD	R. Salm	Result	Concordance					
	1284	Siphon water	a	/	/	-	-	-	-	A	-	/	A	NA	NA							/	/	/	/	
	1285	Siphon water	a	/	/	-	-	-	-	A	-	/	A	NA	NA							/	/	/	/	
	1286	Siphon water	a	/	/	-	-	-	-	A	-	/	A	NA	NA							/	/	/	/	
	1581	Puddle workstation	a	/	/	+ (Citrobacter youngae)	+ (Citrobacter youngae)	-	+ (Citrobacter youngae)	-	A	-	/	A	NA	NA						-	/	A	NA	
	1593	Standing water	a	/	/	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1812	Water workstation	a	2.4	Spiking	+	+	+	+	P	-	/	A	ND	A	ND						-	/	A	ND	
	1814	Standing water	a	2.4	Spiking	+	-	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1959	Siphon water	a	4.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1595	Siphon water	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2073	Process water	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2074	Process water	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2075	Process water	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2280	Siphon water	a	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1434	Store floor in the dairy	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1435	Dust in the dairy maintenance room	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1588	Mud next to the weighbridge	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1594	Powder on the ground next to the tank	b	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1801	Dust in the maintenance room	b	7.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1802	Dust outdoor workstation	b	7.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1805	Mud next to the weighbridge	b	7.2	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1808	Residues	b	6.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1287	Wipe of worktop workshop ready meals	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1288	Wipe of box workshop ready meals	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1289	Wipe box in grinding vegetables	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1290	Wipe of worktop in grinding vegetables	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1432	Outer wall of the tank in dairy	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1433	Bulk workstation outside the dairy	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1587	Wipe of standard mass	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1590	Wipe of pallet turner	c	/	/	+	+	+	+	P	-	/	A	ND	A	ND						-	/	A	ND	
	1591	Wipe bottom of the conveyor in workshop	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1592	Wipe of store window sill	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1595	Wipe of roof 1	c	/	/	+ (Citrobacter youngae)	-	+ (Citrobacter youngae)	+ (Citrobacter youngae)	-	A	-	/	A	NA	A	NA						**	- (Citrobacter koseri)	A (FP)	NA (PP)
	1596	Wipe of roof 2	c	/	/	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1597	Wipe of roof lags	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	1598	Wipe of roof safety railing	c	/	/	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1619	Wipe	c	1.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1620	Wipe	c	1.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1621	Wipe	c	4.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1622	Wipe of worktop workshop ready meals	c	4.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1623	Carriage Wipe	c	4.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1624	Wipe on the floor	c	4.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1625	Wipe start of line	c	1.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1626	Wipe end of line	c	1.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1799	Wipe in local maintenance	c	7.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1800	Wipe outdoor workstation	c	7.8	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1803	Wipe of roof tags	c	7.2	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1804	Wipe of store window sill	c	7.2	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1806	Roof of tower 2	c	7.2	Spiking	+	+	-	-	P	+	+	P	PA	P	PA						+	+	P	PA	
	1807	Roof of tower 1	c	6.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1809	Wipe of pallet turner	c	6.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1810	Wipe bottom of the conveyor in workshop	c	6.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1811	Wipe puddle workstation	c	2.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1813	Wipe of roof safety railing	c	2.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1948	Wipe on spice rack	c	2.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1949	Wipe on shelf in aroma room	c	2.0	Spiking	-	-	-	-	A	+	+	P	PD	P	PD						+	+	P	PD	
	1950	Wipe on cold room shelf - raw materials	c	2.0	Spiking	-	-	-	-	A	+	+	P	PD	P	PD						+	+	P	PD	
	1951	Wipe on cold room shelf - Seafood products	c	4.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1952	Wipe on prep table	c	4.4	Spiking	+	+	+	+	P	-	/	A	ND	A	ND						-	/	A	ND	
	1953	Wipe cake paste production line	c	4.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1954	Wipe middle of line	c	4.4	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1955	Wipe on trash room wall	c	/	/	+	+	+	+	P	-	/	A	ND	A	ND						-	/	A	ND	
	1956	Wipe on trash room floor	c	/	/	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	1957	Wipe on industrial waste bin	c	2.0	Spiking	+	+	+	+	P	+	+	P	PA	P	PA						+	+	P	PA	
	2037	Wipe on weighing table	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2038	Wipe on prep table	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2039	Wipe on manufacturing line	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2070	Wipe cake paste production line	c	/	/	-	-	-	-	A	-	/	A	NA	A	NA						/	/	/	/	
	2071	Wipe on production line carpet	c	/	/	-	-	-	-	A	-															

Sensitivity study - Environmental samples

Study	Sample number	Sample	Type	Inoculation level	Stress	Reference method: ISO 6579-1 (2017)					Salmonella Precis method						Confirmation additional ISO tests				Salmonella Precis method after 72H 4°C					
											Latex test confirmation			Standard tests confirmation												
						XLD	Rapid Salm	XLD	Rapid Salm	Confirmation	Result	Brilliance	Latex(+/)	Result	Concordance	Bioch.	Result	Concordance	XLD	R. Salm	Result	Concordance	Brilliance	Latex(+/)	Result	Concordance
	1726655	Process water tidal ice	a	/	/	Ø	Ø	Ø	Ø	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
R	1726717	Egg rinsing water	a	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
	1726718	Process water tidal ice	a	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	AM	AM	P	PA	AM	+	P	PA
e	1726719	Pastry laboratory wash water	a	2.66	Seeding	BM	BM	BM	BM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	BL	AM	P	PA	AM	+	P	PA
	1726720	Process water ready meals	a	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	BL	AM	P	PA	BM	+	P	PA
n	1726721	Butcher wash water	a	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	BM	+	P	PA
	1726722	Bakery rinse water	a	2.66	Seeding	AM	AM	AM	AM	Salmonella spp.	P	AM	+	P	PA	Salm spp.	P	PA	BM	AM	P	PA	BM	+	P	PA
w	1726676	Chicken wings residues	b	/	/	EL	EL	EM	EM	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/
	1726677	Turkey wings residues	b	/	/	EH	EH	DL	EL	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/
I	1726678	Industrial pastry residues	b	/	/	EM	EM	EM	EM	/	A	Ø	/	A	NA	/	A	NA	Ø	Ø	A	NA	/	/	/	/
	1726679	Cake dough residues	b	/	/	EM	EM	EL	EL	/	A	EM	/	A	NA	/	A	NA	EM	EM	A	NA	/	/	/	/
s	1726697	Residues inside transport container	b	/	/	EM	EM	EM	EM	/	A	EL	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
	1726698	Fishmongers residues	b	/	/	EL	EL	EM	EM	/	A	EM	/	A	NA	/	A	NA	EL	EL	A	NA	/	/	/	/
t	1726691	Chicken wings residues	b	1.66	Seeding	AH	AM	AM	AM	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	DL	CM	P	PA	DL	+	P	PA
	1726692	Turkey wings residues	b	1.66	Seeding	BM	BM	BM	BM	Salmonella spp.	P	DM	+	P	PA	Salm spp.	P	PA	DM	CM	P	PA	DM	+	P	PA
d	1726693	Industrial pastry residues	b	1.66	Seeding	BL	BL	AM	AM	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	BM	+	P	PA
	1726694	Cake dough residues	b	1.66	Seeding	DL	DL	DL	DL	Salmonella spp.	P	DM	+	P	PA	Salm spp.	P	PA	BL	BL	P	PA	DL	+	P	PA
y	1726695	Residues inside transport container	b	1.66	Seeding	BL	BM	BM	BM	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	BM	BM	P	PA	BM	+	P	PA
	1726696	Fishmongers residues	b	1.66	Seeding	BM	BL	BM	BL	Salmonella spp.	P	BM	+	P	PA	Salm spp.	P	PA	BL	BL	P	PA	BM	+	P	PA

**Sensitivity study - Data excluded from the statistical analysis**

Category	Sample number	Sample	Type	Inoculation level	Reference method: ISO 6579 (2002)				Salmonella Precis method						Salmonella Precis method (OBS 72H 4°C)				
					Colonies suspectes				Result	Latex test confirmation				Standard tests confirmation		Latex test confirmation			
					RVS		MKTn			Brilliance	Latex(+-)	Result	Concordance	Result	Concordance	Brilliance	Latex(+-)	Result	Concordance
Meats products	1981	Saucisse de Montbéliard	c	20	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1982	Saucisson à l'ail	c	20	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
Dairy products	1795	Lait cru	b	7	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1796	Lait cru	b	7	-	-	-	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1797	Lait cru	b	7	-	-	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1798	Lait cru	b	7	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1275	Saint Nectaire au lait cru	b	28.6	+	+	+	+	P	-	/	A	ND	A	ND	-	/	A	ND
	1276	Tomme de Savoie	a	28.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1277	Chèvre au lait cru	b	28.6	-	-	-	-	A	+	+	P	PD	P	PD	+	+	P	PD
Seafood products	1504	Filet de saumon	b	15	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1505	Saumon cru	b	15	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
Ready-to-eat and ready-to-reheat products	1512	Flan	c	18.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1513	Crème anglaise	c	18.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1514	Crème anglaise	c	18.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1515	Crème anglaise fine vanille	c	18.6	+	+	-	-	P	+	+	P	PA	P	PA	+	+	P	PA
	1506	Saumon fumé de Norvège	b	15	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1507	Saumon fumé Atlantique	b	15	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1980	Rillettes de porc	a	20	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
Feed products	1983	Ailes de poulet roties	b	20	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1866	Aliments complets pour porc	b	18.4	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1870	Aliments complet pour bovins	b	18.4	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1869	Farine pour porc	b	32.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1867	Aliments complets pour porc	b	18.4	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1868	Farine pour porc	b	32.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1871	Aliments complet pour bovins	b	18.4	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1872	Aliments complets pour vaches laitières	b	32.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA
	1873	Aliments complets pour vaches laitières	b	32.6	+	+	+	+	P	+	+	P	PA	P	PA	+	+	P	PA

## **APPENDIX E**

### **Relative level of detection study**

## RLOD - Meat products

Total viable count: level 0 to 4: 19 000 000 CFU/ g; level 5 : 10 000 000 CFU/g

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading <i>Brilliance Salmonella</i>	Latex (+/-) <i>Brilliance Salmonella</i>	Final result	Positive / Total	Final result	Positive / Total		
			XLD	Brilliance <i>Salmonella</i>	XLD	Brilliance <i>Salmonella</i>										
20070122-03742	0	/	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
20070122-03743			-	-	-	-	A		-	/	A		A			
20070122-03744			-	-	-	-	A		-	/	A		A			
20070122-03745			-	-	-	-	A		-	/	A		A			
20070122-03746			-	-	-	-	A		-	/	A		A			
20070122-03747			-	-	-	-	A		-	/	A		A			
20070122-03748	1	0.13	-	-	-	-	A	1/6	-	/	A	0/6	A	0/6		
20070122-03749			-	-	-	-	A		-	/	A		A			
20070122-03750			-	-	-	-	A		-	/	A		A			
20070122-03751			-	-	-	-	A		-	/	A		A			
20070122-03752			+	+	-	+	P		-	/	A		A			
20070122-03753			-	-	-	-	A		-	/	A		A			
20070122-03760	2	0.39	+	+	+	+	P	3/6	-	/	A	2/6	A	2/6		
20070122-03761			+	+	-	+	P		-	/	A		A			
20070122-03762			+	+	-	+	P		+	+	P		P			
20070122-03763			-	-	-	-	A		-	/	A		A			
20070122-03764			-	-	-	-	A		+	+	P		P			
20070122-03765			-	-	-	-	A		-	/	A		A			
20070122-03766	3	0.65	+	+	+	+	P	5/6	-	/	A	4/6	A	4/6		
20070122-03767			+	+	-	+	P		+	+	P		P			
20070122-03768			-	-	-	-	A		+	+	P		P			
20070122-03769			+	+	-	+	P		-	/	A		A			
20070122-03770			+	+	-	+	P		+	+	P		P			
20070122-03771			+	+	+	+	P		+	+	P		P			
20070212-08397	4	2.40	+	+	-	-	P	6/6	+	+	P	6/6	P	6/6		
20070212-08398			+	+	-	+	P		+	+	P		P			
20070212-08399			-	+	-	-	P		+	+	P		P			
20070212-08400			-	+	-	-	P		+	+	P		P			
20070212-08401			+	+	-	+	P		+	+	P		P			
20070212-08402			-	+	-	-	P		+	+	P		P			

## RLOD - Dairy products

Total viable count: level 0 to 5: 1600 CFU/ml

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading	Latex (+/-)	Final result	Positive / Total	Final result	Positive / Total		
			XLD	Brilliance <i>Salmonella</i>	XLD	Brilliance <i>Salmonella</i>			Brilliance <i>Salmonella</i>				Final result	Positive / Total		
20060725-30010	0	/	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
20060725-30011			-	-	-	-	A		-	/	A		A			
20060725-30012			-	-	-	-	A		-	/	A		A			
20060725-30013			-	-	-	-	A		-	/	A		A			
20060725-30014			-	-	-	-	A		-	/	A		A			
20060725-30015			-	-	-	-	A		-	/	A		A			
20060725-30016	1	0.31	-	-	-	-	A	3/6	-	/	A	3/6	A	3/6		
20060725-30017			+	+	+	+	P		-	/	A		A			
20060725-30018			-	-	-	-	A		-	/	A		A			
20060725-30019			+	-	+	-	P		+	+	P		P			
20060725-30020			+	+	+	+	P		+	+	P		P			
20060725-30021			-	-	-	-	A		+	+	P		P			
20060725-30022	2	0.52	-	-	-	-	A	4/6	-	/	A	3/6	A	3/6		
20060725-30023			-	-	-	-	A		+	+	P		P			
20060725-30024			+	-	-	-	P		-	/	A		A			
20060725-30025			+	-	+	-	P		-	/	A		A			
20060725-30026			+	+	+	+	P		+	+	P		P			
20060725-30027			+	+	+	+	P		+	+	P		P			
20060725-30028	3	2.10	+	+	+	+	P	6/6	+	+	P	5/6	P	5/6		
20060725-30029			+	+	+	+	P		+	+	P		P			
20060725-30030			+	+	+	+	P		+	+	P		P			
20060725-30031			+	+	+	+	P		-	/	A		A			
20060725-30032			+	+	+	+	P		+	+	P		P			
20060725-30033			+	+	+	+	P		+	+	P		P			
20060905-36642	4	4.00	+	+	+	+	P	6/6	+	+	P	6/6	P	6/6		
20060905-36643			+	+	+	+	P		+	+	P		P			
20060905-36644			+	+	+	+	P		+	+	P		P			
20060905-36645			+	+	+	+	P		+	+	P		P			
20060905-36646			+	+	+	+	P		+	+	P		P			
20060905-36647			+	+	+	+	P		+	+	P		P			

## RLOD - Seafood and vegetables

Total viable count: levels 0, 4 and 5: 7 600 000 CFU/ g; levels 1,2 and 3 : 70 000 000 CFU/g

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading <i>Brilliance Salmonella</i>	Latex (+/-)	Final result	Positive / Total	Final result	Positive / Total		
			XLD	<i>Brilliance Salmonella</i>	XLD	<i>Brilliance Salmonella</i>										
20060926-39976	0	/	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
20060926-39977			-	-	-	-	A		-	/	A		A			
20060926-39978			-	-	-	-	A		-	/	A		A			
20060926-39979			-	-	-	-	A		-	/	A		A			
20060926-39980			-	-	-	-	A		-	/	A		A			
20060926-39981			-	-	-	-	A		-	/	A		A			
20070115-02358	1	0.3	+	+	+	+	P	3/6	-	/	A	2/6	A	2/6		
20070115-02359			-	-	-	-	A		-	/	A		A			
20070115-02360			-	-	-	-	A		-	/	A		A			
20070115-02361			-	-	-	-	A		-	/	A		A			
20070115-02362			+	+	+	+	P		+	+	P		P			
20070115-02363			+	+	+	+	P		+	+	P		P			
20070115-02364	2	0.5	+	+	+	+	P	5/6	-	/	A	4/6	A	4/6		
20070115-02365			-	-	-	-	A		+	+	P		P			
20070115-02366			+	+	+	+	P		+	+	P		P			
20070115-02367			+	+	+	+	P		+	+	P		P			
20070115-02368			+	+	+	+	P		+	+	P		P			
20070115-02369			+	+	+	+	P		-	/	A		A			
20060926-39982	3	2.4	+	+	+	+	P	6/6	+	/	P	4/6	P	4/6		
20060926-39983			+	+	+	+	P		-	/	A		A			
20060926-39984			+	+	+	+	P		-	/	A		A			
20060926-39985			+	+	+	+	P		+	+	P		P			
20060926-39986			+	+	+	+	P		+	+	P		P			
20060926-39987			+	+	+	+	P		+	+	P		P			
20060926-39988	4	4.8	+	+	+	+	P	6/6	+	+	P	6/6	P	6/6		
20060926-39989			+	+	+	+	P		+	+	P		P			
20060926-39990			+	+	+	+	P		+	+	P		P			
20060926-39991			+	+	+	+	P		+	+	P		P			
20060926-39992			+	+	+	+	P		+	+	P		P			
20060926-39993			+	+	+	+	P		+	+	P		P			

## RLOD - Specific ingredients and foods

Total viable count: 40 CFU/ml

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading	Latex (+/-)	Final result	Positive / Total	Final result	Positive / Total		
			XLD	Brilliance Salmonella	XLD	Brilliance Salmonella			Brilliance Salmonella	(+/-)	Final result	Positive / Total				
1536	0	/	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
1537			-	-	-	-	A		-	/	A		A			
1538			-	-	-	-	A		-	/	A		A			
1539			-	-	-	-	A		-	/	A		A			
1540			-	-	-	-	A		-	/	A		A			
1541			-	-	-	-	A		-	/	A		A			
1542	1	0.6	+	+	+	+	P	4/6	+	+	P	5/6	P	5/6		
1543			+	+	-	-	P		+	+	P		P			
1544			+	+	-	-	P		+	+	P		P			
1545			+	+	+	+	P		+	+	P		P			
1546			-	-	-	-	A		+	+	P		P			
1547			-	-	-	-	A		-	/	A		A			
1548	2	1.2	-	-	-	-	A	4/6	+	+	P	4/6	P	4/6		
1549			+	+	+	+	P		-	/	A		A			
1550			+	+	+	+	P		+	+	P		P			
1551			+	+	+	+	P		+	+	P		P			
1552			+	+	+	+	P		+	+	P		P			
1553			-	-	-	-	A		-	/	A		A			
1554	3	2.4	+	+	+	+	P	6/6	+	+	P	6/6	P	6/6		
1555			+	+	+	+	P		+	+	P		P			
1556			+	+	+	+	P		+	+	P		P			
1557			+	+	+	+	P		+	+	P		P			
1558			+	+	+	+	P		+	+	P		P			
1559			+	+	+	+	P		+	+	P		P			
2268	4	0.3	-	-	-	-	A	1/6	-	-	A	1/6	A	1/6		
2269			-	-	-	-	A		-	-	A		A			
2270			-	-	-	-	A		-	-	A		A			
2271			-	-	-	-	A		-	-	A		A			
2272			+	+	+	+	P		+	+	P		P			
2273			-	-	-	-	A		-	-	A		A			

## RLOD - Feed products

Total viable count: high level: 140 CFU/ g; other levels : 10(Ne) CFU/g

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading	Latex (+/-)	Final result	Positive / Total	Final result	Positive / Total		
			XLD	Brilliance <i>Salmonella</i>	XLD	Brilliance <i>Salmonella</i>			Brilliance <i>Salmonella</i>	(+/-)	Final result	Positive / Total				
20061211-52674	0	0	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
20061211-52675			-	-	-	-	A		-	/	A		A			
20061211-52676			-	-	-	-	A		-	/	A		A			
20061211-52677			-	-	-	-	A		-	/	A		A			
20061211-52678			-	-	-	-	A		-	/	A		A			
20061211-52679			-	-	-	-	A		-	/	A		A			
20070115-02376	1	0,15	-	-	-	-	A	1/6	-	/	A	1/6	A	1/6		
20070115-02377			-	-	-	-	A		+	+	P		P			
20070115-02378			+	+	+	+	P		-	/	A		A			
20070115-02379			-	-	-	-	A		-	/	A		A			
20070115-02380			-	-	-	-	A		-	/	A		A			
20070115-02381			-	-	-	-	A		-	/	A		A			
20070115-02382	2	0,25	+	+	+	+	P	3/6	+	+	P	5/6	P	5/6		
20070115-02383			+	+	+	+	P		+	+	P		P			
20070115-02384			-	-	-	-	A		+	+	P		P			
20070115-02385			+	+	+	+	P		+	+	P		P			
20070115-02386			-	-	-	-	A		+	+	P		P			
20070115-02387			-	-	-	-	A		-	/	A		A			
20070115-02388	3	0,4	+	+	+	+	P	4/6	+	+	P	5/6	P	5/6		
20070115-02389			+	+	+	+	P		+	+	P		P			
20070115-02390			+	+	+	+	P		-	/	A		A			
20070115-02391			+	+	+	+	P		+	+	P		P			
20070115-02392			-	+	-	-	A		+	+	P		P			
20070115-02393			-	-	-	-	A		+	+	P		P			
20061211-52668	4	4,2	+	+	+	+	P	6/6	+	+	P	6/6	P	6/6		
20061211-52669			+	+	+	+	P		+	+	P		P			
20061211-52670			+	+	+	+	P		+	+	P		P			
20061211-52671			+	+	+	+	P		+	+	P		P			
20061211-52672			+	+	+	+	P		+	+	P		P			
20061211-52673			+	+	+	+	P		+	+	P		P			

## RLOD - Environmental samples

Total viable count: level 0 to 5: 30 CFU/ml

#	Level	Inoculation level (CFU / 25 g)	Reference method: ISO 6579						Alternative method: <i>Salmonella</i> Precis							
			Presumptive positive colonies				Result	Positive / Total	Confirmation par test latex				Confirmation by classical tests			
			RVS		MKTn				Reading	Latex (+/-)	Final result	Positive / Total	Final result	Positive / Total		
			XLD	Brilliance <i>Salmonella</i>	XLD	Brilliance <i>Salmonella</i>										
20070206-06394	0	0	-	-	-	-	A	0/6	-	/	A	0/6	A	0/6		
20070206-06395			-	-	-	-	A		-	/	A		A			
20070206-06396			-	-	-	-	A		-	/	A		A			
20070206-06397			-	-	-	-	A		-	/	A		A			
20070206-06398			-	-	-	-	A		-	/	A		A			
20070206-06399			-	-	-	-	A		-	/	A		A			
20070206-06406	1	0,5	-	-	-	-	A	1/6	-	/	A	1/6	A	1/6		
20070206-06407			-	-	-	-	A		+	+	P		P			
20070206-06408			-	-	-	-	A		-	/	A		A			
20070206-06409			+	+	-	+	P		-	/	A		A			
20070206-06410			-	-	-	-	A		-	/	A		A			
20070206-06411			-	-	-	-	A		-	/	A		A			
20070206-06412	2	0,8	+	+	-	+	P	1/6	-	/	A	4/6	A	4/6		
20070206-06413			-	-	-	-	A		+	+	P		P			
20070206-06414			-	-	-	-	A		+	+	P		P			
20070206-06415			-	-	-	-	A		+	+	P		P			
20070206-06416			-	-	-	-	A		-	/	A		A			
20070206-06417			-	-	-	-	A		+	+	P		P			
20070206-06418	3	1,2	-	-	-	-	A	3/6	+	+	P	4/6	P	4/6		
20070206-06419			+	+	+	+	P		+	+	P		P			
20070206-06420			-	-	-	-	A		-	/	A		A			
20070206-06421			+	+	+	+	P		+	+	P		P			
20070206-06422			+	+	-	+	P		+	+	P		P			
20070206-06423			-	-	-	-	A		-	/	A		A			
20070206-06424	4	1,7	-	-	-	-	A	3/6	-	/	A	4/6	A	4/6		
20070206-06425			-	-	-	-	A		+	+	P		P			
20070206-06426			+	+	-	+	P		-	/	A		A			
20070206-06427			+	+	-	+	P		+	+	P		P			
20070206-06428			-	-	-	-	A		+	+	P		P			
20070206-06429			+	+	-	+	P		+	+	P		P			
20070212-08391	5	7,6	+	+	+	+	P	6/6	+	+	P	6/6	P	6/6		
20070212-08392			+	+	+	+	P		+	+	P		P			
20070212-08393			+	+	+	+	P		+	+	P		P			
20070212-08394			+	+	+	+	P		+	+	P		P			
20070212-08395			+	+	+	+	P		+	+	P		P			
20070212-08396			+	+	+	+	P		+	+	P		P			

## RLOD - Ready-to-eat and ready-to-reheat products

**Matrix:** Macédoine

**Bacterial strain:** *Salmonella infantis* DGR133

**Enumeration of the microorganisms:** 3600 UFC/g

Code	CFU/ 25g	Reference method: EN ISO 6579-1:2017 <sup>(*)</sup>						Alternative method: <i>Salmonella</i> PRECIS				Number of positive results / method	
		RVS		MKTn		Confirmation	Final result	Brilliance <i>Salmonella</i> agar	Confirmation		Final result		
		XLD	RAPID' <i>Salmonella</i>	XLD	RAPID' <i>Salmonella</i>				Latex (+/-)	Classical tests			
1663724	0	ØE	ØE	ØE	ØE	/	A	ØE	/	/	A	RM : 0 / 5 AM : 0 / 5	
1663725		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663726		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663727		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663728		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663729	0.7	ØE	ØE	ØE	ØE	/	A	ØE	/	/	A	RM : 10 / 20 AM : 9 / 20	
1663730		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663731		ØE	ØE	ØE	ØE	/	A	AH	+	<i>Salmonella</i> spp.	P		
1663732		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663733		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663734		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	ØE	/	/	A		
1663735		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	ØE	/	/	A		
1663736		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663737		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663738		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663739		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	ØE	/	/	A		
1663740		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663741		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663742		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663743		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	ØE	/	/	A		
1663744		ØE	ØE	ØE	ØE	/	A	AH	+	<i>Salmonella</i> spp.	P		
1663745		ØE	ØE	ØE	ØE	/	A	AH	+	<i>Salmonella</i> spp.	P		
1663746		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663747		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663748		ØE	ØE	ØE	ØE	/	A	ØE	/	/	A		
1663749	2.5	AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P	RM : 5 / 5 AM : 5 / 5	
1663750		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663751		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663752		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		
1663753		AH	AH	AH	AH	<i>Salmonella</i> spp.	P	AH	+	<i>Salmonella</i> spp.	P		

## **APPENDIX F**

### **Inclusivity and exclusivity study - Raw results**

**Inclusivity - Initial validation - 2007**

**Target strains**

#	Strain	Reference	Origin	Inoculation level (CFU/225 ml)	Salmonella Precis	
					Aspect of the colonies	Agglutination with the Oxoid <i>Salmonella</i> Latex Test
1	<i>Salmonella</i> Agona	A00V038	Food	54	Purple colonies	+
2	<i>Salmonella</i> Anatum	A00E007	Dust dairy industry	44	Purple colonies	+
3	<i>Salmonella</i> arizonae	Ad450	Ewe milk	33	Purple colonies	+
4	<i>Salmonella</i> arizonae	Ad 478	Clams	73	Purple colonies	+
5	<i>Salmonella</i> Binza	adria 27	Breeding	48	Purple colonies (low growth)	+
6	<i>Salmonella</i> Bovismorbificans	adria 132	Raw pork belly	44	Purple colonies	+
7	<i>Salmonella</i> Bovismorbificans	adria 6629	Chipolata sausages	34	Purple colonies	+
8	<i>Salmonella</i> Brandenburg	adria 499	Toulouse sausage	51	Purple colonies	+
9	<i>Salmonella</i> Branderup	adria 111	Pork mechanically separated meat	41	Purple colonies	+
10	<i>Salmonella</i> Bredeney	adria 464	Pie of head	59	Purple colonies	+
11	<i>Salmonella</i> Bredeney	adria 141	Crépinette	56	Purple colonies	+
12	<i>Salmonella</i> Brando	adria 569	Sausage meat	43	Purple colonies	+
13	<i>Salmonella</i> Cremieu	Ad230	Hare	49	Purple colonies	+
14	<i>Salmonella</i> diarzoane	Ad595	Cheese	51	Purple colonies	+ fine
15	<i>Salmonella</i> Derby	adria 374	Chipolata sausages	36	Purple colonies	+
16	<i>Salmonella</i> Duisberg	adria 42	Breeding	37	Purple colonies	+
17	<i>Salmonella</i> Dublin	adria 40	Food	37	No growth from OBS, slightly pink colonies from BPW	+
18	<i>Salmonella</i> Dublin	Ad 528	Patties dough	57	Purple colonies	+
19	<i>Salmonella</i> Dublin	Ad 529	Skirt beef steak	37	Pale purple colonies	+
20	<i>Salmonella</i> Dublin	Ad 530	Ground beef	34	Pale purple colonies	+
21	<i>Salmonella</i> Dublin	Ad 531	Raw milk cheese	50	Pale purple colonies	+
22	<i>Salmonella</i> Enteritidis	adria 657	Liquid egg	55	Purple colonies	+
23	<i>Salmonella</i> Enteritidis	adria 2532	Ham	44	Purple colonies	+
24	<i>Salmonella</i> Hadar	35	Poultry	57	Purple colonies	+
25	<i>Salmonella</i> Hadar	adria 24871	Chicken fillet	35	Purple colonies	+
26	<i>Salmonella</i> Heidelberg	adria 285	Tomato stuffing	61	Purple colonies	+
27	<i>Salmonella</i> Heidelberg	adria 24876	Chicken fillet	7	Purple colonies	+
28	<i>Salmonella</i> indiana	adria 2	Fishmeal	20	Purple colonies	+
29	<i>Salmonella</i> Infantis	adria 14	Liquid egg	19	Purple colonies	+
30	<i>Salmonella</i> Infantis	adria 4018	Raw milk cheese	33	Purple colonies	+
31	<i>Salmonella</i> Kottbus	1	Poultry	50	Purple colonies	+
32	<i>Salmonella</i> Livingstone	F104	Feed	22	Purple colonies	+
33	<i>Salmonella</i> London	adria 326	Cooked shoulder	23	Purple colonies	+
34	<i>Salmonella</i> Manhattan	adria 900	Dust dairy industry	13	Purple colonies	+
35	<i>Salmonella</i> Mbandaka	adria 81	Liquid egg	7	Purple colonies	+
36	<i>Salmonella</i> Newport	adria 540	Toulouse sausage	19	Purple colonies	+
37	<i>Salmonella</i> Newport	adria 586	Beef carcass	20	Purple colonies	+
38	<i>Salmonella</i> Panama	adria 8	Ground beef	22	Purple colonies	+
39	<i>Salmonella</i> Panama	adria 882	Chipolata sausages with herbs	9	Purple colonies	+
40	<i>Salmonella</i> Paratyphi A	ATCC 9150	/	17	Purple colonies	+
41	<i>Salmonella</i> Paratyphi B	Ad 301	Human	49	Purple colonies	+
42	<i>Salmonella</i> Paratyphi C	ATCC 13428	/	63	Purple colonies	+
43	<i>Salmonella</i> Regent	adria 328	Duck	37	Purple colonies	+
44	<i>Salmonella</i> Seftenberg	1	Food	42	Purple colonies	+
45	<i>Salmonella</i> Saintpaul	631	Poultry	58	Purple colonies	+
46	<i>Salmonella</i> Tennessee	A00E006	Dust dairy industry	58	Purple colonies	+
47	<i>Salmonella</i> Thompson	AER 301	Poultry	41	Purple colonies	+
48	<i>Salmonella</i> Typhi	Ad 302	Human	49	Purple colonies	+
49	<i>Salmonella</i> Typhimurium	adria 206	Pasteurized liquid egg	63	Purple colonies	+
50	<i>Salmonella</i> Typhimurium	adria 305	Paella	34	Purple colonies	+
51	<i>Salmonella</i> Typhimurium	adria 528	Brine	61	Purple colonies	+
52	<i>Salmonella</i> Virchow	F276	Curry	55	Purple colonies	+
53	<i>Salmonella</i> Worthington	adria 3506	Pâté	43	Purple colonies	+

**Exclusivity - Initial validation - 2007**

**Non-target strains**

#	Strain	Reference	Origin	Inoculation level (CFU/ml)	Salmonella Precis	
					Aspect of the colonies	Agglutination with the Oxoid <i>Salmonella</i> Latex Test
1	<i>Citrobacter diversus</i>	adria 140	Raw milk	$1.3 \times 10^5$	Purple	-
2	<i>Citrobacter koseri</i>	adria 71	Frozen vegetables	$1.1 \times 10^5$	Cream	/
3	<i>Citrobacter freundii</i>	adria 23	Toulouse sausage	$5.6 \times 10^5$	Cream	/
4	<i>Citrobacter freundii</i>	59	/	$1.0 \times 10^5$	Cream	/
5	<i>Citrobacter freundii</i>	adria 175	Duck mechanically separated meat	$1.2 \times 10^5$	Cream	/
6	<i>Escherichia coli</i>	adria 2B	Sausage	$7.4 \times 10^4$	Cream	/
7	<i>Escherichia coli</i>	adria 19	Grated carrots	$7.0 \times 10^4$	Cream	/
8	<i>Escherichia coli</i>	adria 6	Sausage	$9.4 \times 10^4$	Cream	/
9	<i>Escherichia vulneris</i>	adria 127	Raw milk	$1.3 \times 10^5$	Cream to pale yellow	/
10	<i>Escherichia hermanii</i>	Ad 461	Custard	$9.3 \times 10^4$	Pink cream	/
11	<i>Enterobacter agglomerans</i>	adria 11	Cheese	$9.4 \times 10^4$	Cream	/
12	<i>Enterobacter amnigenus</i>	A00C068	Cockerel	$1.1 \times 10^5$	Turquoise	/
13	<i>Enterobacter cloacae</i>	adria 10	Raw milk	$7.0 \times 10^4$	Turquoise	/
14	<i>Enterobacter cloacae</i>	adria 128	Ground beef	$8.7 \times 10^4$	Turquoise	/
15	<i>Enterobacter kobei</i>	Ad342	Ham	$1.0 \times 10^5$	Blue, low growth	/
16	<i>Enterobacter sakazakii</i>	adria 95	Cottage cheese	$8.3 \times 10^4$	Purple, low growth	-
17	<i>Enterobacter sakazakii</i>	adria D7	Poultry	$1.3 \times 10^5$	Turquoise	/
18	<i>Hafnia alvei</i>	adria 167	Sausage	$1.1 \times 10^5$	Cream	/
19	<i>Hafnia alvei</i>	adria 168	Duck mechanically separated meat	$1.3 \times 10^5$	Cream	/
20	<i>Klebsiella oxytoca</i>	57	/	$1.0 \times 10^5$	Turquoise	/
21	<i>Klebsiella oxytoca</i>	42	/	$1.2 \times 10^5$	Pale turquoise	/
22	<i>Klebsiella pneumoniae</i>	28	/	$1.1 \times 10^5$	Cream	/
23	<i>Proteus mirabilis</i>	adria 54	Poultry mechanically separated meat	$1.5 \times 10^5$	Cream to pale yellow	/
24	<i>Proteus mirabilis</i>	55	/	$1.2 \times 10^5$	Cream	/
25	<i>Proteus vulgaris</i>	56	/	$4.4 \times 10^4$	Turquoise	/
26	<i>Rhanella aquatilis</i>	Ad 69	Shells	<20	No growth	/
27	<i>Serratia liquefaciens</i>	5	Egg product	$1.3 \times 10^5$	Pink beige	/
28	<i>Serratia proteomaculans</i>	A00C056	Ham	$1.5 \times 10^5$	Translucent, very low growth	/
29	<i>Shigella sonnei</i>	CIP8249T	/	$1.3 \times 10^5$	Cream	/
30	<i>Yersinia enterocolotica</i>	adria 32	Lardons	$1.1 \times 10^5$	Blue, low growth	/
31	<i>Enterobacter cloacae</i>	adria 48	/	$3.0 \times 10^5$	Turquoise	/
32	<i>Enterobacter cloacae</i>	adria 58	/	$3.4 \times 10^5$	Turquoise	/
33	<i>Enterobacter cloacae</i>	adria 98	/	$3.2 \times 10^5$	Turquoise	/
34	<i>Enterobacter cloacae</i>	adria 148	/	$3.1 \times 10^5$	Turquoise	/
35	<i>Enterobacter cloacae</i>	adria 150	/	$2.9 \times 10^5$	Turquoise	/
36	<i>Enterobacter cloacae</i>	Fb2	/	$1.9 \times 10^5$	Turquoise	/
37	<i>Enterobacter cloacae</i>	Fb3	/	$1.6 \times 10^5$	Turquoise	/
38	<i>Enterobacter cloacae</i>	13	/	$1.5 \times 10^5$	Turquoise	/
39	<i>Enterobacter cloacae</i>	Ad230	/	$2.9 \times 10^5$	Turquoise	/
40	<i>Enterobacter cloacae</i>	Mii0595	/	$3.9 \times 10^5$	Turquoise	/

**Inclusivity - Renewal study - 2011**

**Target strains**

#	Strain	Reference	Origin	Inoculation level (CFU/225 ml)	<i>Salmonella</i> Precis	
					Aspect of the colonies	Agglutination with the Oxoid <i>Salmonella</i> Latex Test
1	<i>Salmonella</i> Rissen	39	Poultry	6	Characteristic	+
2	<i>Salmonella</i> Montevideo	Ad 912	Dairy product	6	Characteristic	+
3	<i>Salmonella</i> Blockley	Ad 923	Chicken	3	Characteristic	+
4	<i>Salmonella</i> Napoli	Ad 928	Bovine	6	Characteristic	+
5	<i>Salmonella</i> Kedougou	Ad 929	Environment	3	Characteristic	+
6	<i>Salmonella</i> Havana	Ad 930	Poultry	5	Characteristic	+
7	<i>Salmonella</i> Cerro	Ad689	Dehydrated proteins	11	Characteristic	+
8	<i>Salmonella arizona</i> 51:z4,223:-	CIP 8230	/	6	Characteristic	+
9	<i>Salmonella diarizonae</i> 38:IV:z53	Ad 1299	Environment	12	Characteristic	+ weak
10	<i>Salmonella diarizonae</i> 61:k:1,5,7	Ad 1300	Dairy product	4	Characteristic	+
11	<i>Salmonella</i> Typhimurium SI 1,4,[5],12:-: (non-motile variant)	Ad 1333	Tiramisu	12	Characteristic	+
12	<i>Salmonella</i> Typhimurium SI 1,4,[5],12:i:- (monophasic variant)	Ad 1334	Pork à la tahitienne	9	Characteristic	+
13	<i>Salmonella</i> Typhimurium SI 1,4,[5],12:-:1,2 (monophasic variant)	Ad 1335	Environment poultry	2	Characteristic	+

**Inclusivity - Renewal study - 2019**

**Target strains**

#	Strain	Reference	Origin	Inoculation level (CFU/225 ml)	<i>Salmonella</i> Precis	
					Aspect of the colonies	Agglutination with the Oxoid <i>Salmonella</i> Latex Test
1	<i>Salmonella</i> Abaetetuba	ZSD934	Food product	26	Purple colonies	+
2	<i>Salmonella</i> Caracas	ZTL125	Spice	19	Purple colonies	+
3	<i>Salmonella</i> Cubana	ZIT014	Swab poultry environment	54	Purple colonies	+
4	<i>Salmonella</i> Lille	ZTZ341	Frozen ground beef	77	Purple colonies	+
5	<i>Salmonella</i> Mississippi	ZUF049	Food product	46	Purple colonies	+
6	<i>Salmonella</i> Putten	ZUJ567	Chicken feed	23	Purple colonies	+
7	<i>Salmonella</i> Muenchen	ZVC471	Environment: mud	64	Purple colonies	+
8	<i>Salmonella</i> Abortusequi	ZVL932	Food product	29	Very small pale purple colonies	+
9	<i>Salmonella</i> Abortusovis	ZVW681	Food product	23	Purple colonies	+
10	<i>Salmonella</i> Bareilly	ZWU933	Food product	84	Purple colonies	+
11	<i>Salmonella</i> Gaminara	ZYE413	Food product	68	Purple colonies	+
12	<i>Salmonella</i> Meleagridis	ZYP361	Food product	84	Purple colonies	+ (weak)
13	<i>Salmonella</i> Rubislaw	ZYV849	Food product	90	Purple colonies	+
14	<i>Salmonella</i> Schwarzengrund	ZZE969	Food product	45	Purple colonies	+
15	<i>Salmonella</i> Aberdeen	ZRL146	Food product	74	Purple colonies	+
16	<i>Salmonella</i> bongori	ZQQ969	Turkey breeding	36	Very pale purple colonies	+ (weak)
17	<i>Salmonella</i> Gallinarum	ZQN811	Food product	29	Purple colonies	+
18	<i>Salmonella</i> houtenae	ZNU025	Cooked codfish offcuts	31	Very pale purple colonies	+ (weak)
19	<i>Salmonella</i> Hvittingfos	ZNK599	Food product	44	Purple colonies	+
20	<i>Salmonella</i> indica	ZNE350	Environment	52	Purple colonies	+
21	<i>Salmonella</i> Michigan	ZMF746	Vegetal	46	Purple colonies	+
22	<i>Salmonella</i> Orianenburg	ZLQ024	Vegetals	43	Purple colonies	+
23	<i>Salmonella</i> Poona pomona	ZKG911	Cock	58	Purple colonies	+
24	<i>Salmonella</i> salamae	ZHL075	Cereals	23	Purple colonies	+
25	<i>Salmonella</i> Urbana	ZGK518	Food product	35	Purple colonies	+
26	<i>Salmonella</i> Veneziana	ZGF788	Food product	28	Purple colonies	+ (weak)
27	<i>Salmonella</i> Wandsworth	ZGD433	Food product	43	Purple colonies	+
28	<i>Salmonella</i> Kentucky	ZAP338	Food product	49	Purple colonies	+
29	<i>Salmonella</i> Minnesota	YZE021	Young turkey	38	Purple colonies	+
30	<i>Salmonella</i> Chester	AWU867	Duck leg	75	Purple colonies	+
31	<i>Salmonella</i> Weltewreden	KPN016	Cooked shrimps bouchées	40	Purple colonies	+
32	<i>Salmonella</i> Javiana	FDX459	Cooked liver	60	Purple colonies	+
33	<i>Salmonella</i> Give	JAW805	Vanilla beans powder	53	Purple colonies	+
34	<i>Salmonella</i> Stanley	RBH447	Chives	47	Purple colonies	+
35	<i>Salmonella</i> Essen	LBM889	Raw frozen chicken breast	67	Purple colonies	+
36	<i>Salmonella</i> Lexington	PAK637	Vanilla beans	37	Purple colonies	+
37	<i>Salmonella</i> Ibadan	CJF795	Raw swordfish	16	Purple colonies	+
38	<i>Salmonella</i> Coeln	CCN391	Turkey paupiette	38	Purple colonies	+
39	<i>Salmonella</i> Blockley	YZC738	Environement hen breeding	24	Purple colonies	+
40	<i>Salmonella</i> Adelaide	CVR822	/	42	Purple colonies	+

**Exclusivity - Renewal study - 2019****Non-target strains**

#	Strain	Reference	Origin	Inoculation level (CFU/225 ml)	<i>Salmonella</i> Precis	
					Aspect of the colonies	Agglutination with the Oxoid <i>Salmonella</i> Latex Test
1	<i>Pseudomonas fragi</i>	EAP575	Jamaica-style turkey skewers	5.9x10 <sup>8</sup>	No growth	/
2	<i>Aeromonas</i> sp.	ABB472	Water, environment	1.6x10 <sup>8</sup>	No growth	/
3	<i>Serratia marcescens</i>	BJK3652	Food product	4.8x10 <sup>8</sup>	A few purplish colonies	-
4	<i>Shigella flexneri</i>	WMH220	DSMZ 4782	3.5x10 <sup>8</sup>	No growth	/

## APPENDIX G - Interlaboratory study - Raw results

**Collaborator**
**A**

TVC:

 $9,2 \cdot 10^3 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
A1	-	-	-	-	/	-	-	/	-
A6	-	-	-	-	/	-	-	/	-
A8	-	-	-	-	/	-	-	/	-
A15	-	-	-	-	/	-	-	/	-
A17	-	-	-	-	/	-	-	/	-
A18	-	-	-	-	/	-	-	/	-
A20	-	-	-	-	/	-	-	/	-
A24	-	-	-	-	/	-	-	/	-
A2	+	+	+	+	+	+	+	+	+
A5	+	+	+	+	+	+	+	+	+
A9	+	+	+	+	+	+	+	+	+
A10	+	+	+	+	+	+	+	+	+
A13	+	+	+	+	+	+	+	+	+
A14	+	+	+	+	+	+	+	+	+
A19	+	+	+	+	+	+	+	+	+
A23	+	+	+	+	+	+	+	+	+
A3	+	+	+	+	+	+	+	+	+
A4	+	+	+	+	+	+	+	+	+
A7	+	+	+	+	+	+	+	+	+
A11	+	+	+	+	+	+	+	+	+
A12	+	+	+	+	+	+	+	+	+
A16	+	+	+	+	+	+	+	+	+
A21	+	+	+	+	+	+	+	+	+
A22	+	+	+	+	+	+	+	+	+

**Collaborator**
**B**

TVC:

 $1,0 \cdot 10^5 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
B1	-	-	-	-	/	-	-	/	-
B6	-	-	-	-	/	-	-	/	-
B8	-	-	-	-	/	-	-	/	-
B15	-	-	-	-	/	-	-	/	-
B17	-	-	-	-	/	-	-	/	-
B18	-	-	-	-	/	-	-	/	-
B20	-	-	-	-	/	-	-	/	-
B24	-	-	-	-	/	-	-	/	-
B2	+	+	+	+	+	+	+	+	+
B5	+	+	+	+	+	+	+	+	+
B9	+	+	+	+	+	+	+	+	+
B10	+	+	+	+	+	+	+	+	+
B13	+	+	+	+	+	+	+	+	+
B14	+	+	+	+	+	+	+	+	+
B19	+	+	+	+	+	+	+	+	+
B23	+	+	+	+	+	+	+	+	+
B3	+	+	+	+	+	+	+	+	+
B4	+	+	+	+	+	+	+	+	+
B7	+	+	+	+	+	+	+	+	+
B11	+	+	+	+	+	+	+	+	+
B12	+	+	+	+	+	+	+	+	+
B16	+	+	+	+	+	+	+	+	+
A21	+	+	+	+	+	+	+	+	+
A22	+	+	+	+	+	+	+	+	+

**Collaborator**

C

TVC:  $2,4 \cdot 10^7 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
C1	-	-	-	-	/	-	-	/	-
C6	-	-	-	-	/	-	-	/	-
C8	-	-	-	-	/	-	-	/	-
C15	-	-	-	-	/	-	-	/	-
C17	-	-	-	-	/	-	-	/	-
C18	-	-	-	-	/	-	-	/	-
C20	-	-	-	-	/	-	-	/	-
C24	-	-	-	-	/	-	-	/	-
C2	+	+	+	+	+	+	+	+	+
C5	+	+	+	+	+	+	+	+	+
C9	+	+	+	+	+	+	+	+	+
C10	+	+	+	+	+	+	+	+	+
C13	+	+	+	+	+	+	+	+	+
C14	+	+	+	+	+	+	+	+	+
C19	+	+	+	+	+	+	+	+	+
C23	+	+	+	+	+	+	+	+	+
C3	+	+	+	+	+	+	+	+	+
C4	+	+	+	+	+	+	+	+	+
C7	+	+	+	+	+	+	+	+	+
C11	+	+	+	+	+	+	+	+	+
C12	+	+	+	+	+	+	+	+	+
C16	+	+	+	+	+	+	+	+	+
C21	+	+	+	+	+	+	+	+	+
C22	+	+	+	+	+	+	+	+	+

**Collaborator**

D

TVC:  $4,4 \cdot 10^4 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
D1	-	-	-	-	/	-	-	/	-
D6	-	-	-	-	/	-	-	/	-
D8	-	-	-	-	/	-	-	/	-
D15	-	-	-	-	/	-	-	/	-
D17	-	-	-	-	/	-	-	/	-
D18	-	-	-	-	/	-	-	/	-
D20	-	-	-	-	/	-	-	/	-
D24	-	-	-	-	/	-	2 colonies*	+	+
D2	+	+	+	+	+	+	+	+	+
D5	+	+	+	+	+	+	+	+	+
D9	+	+	+	+	+	+	+	+	+
D10	+	+	+	+	+	+	+	+	+
D13	+	+	+	+	+	+	+	+	+
D14	+	+	+	+	+	+	+	+	+
D19	+	+	+	+	+	+	+	+	+
D23	+	+	+	+	+	+	+	+	+
D3	+	+	+	+	+	+	+	+	+
D4	+	+	+	+	+	+	+	+	+
D7	+	+	+	+	+	+	+	+	+
D11	+	+	+	+	+	+	+	+	+
D12	+	+	+	+	+	+	+	+	+
D16	+	+	+	+	+	+	+	+	+
D21	+	+	+	+	+	+	+	+	+
D22	+	+	+	+	+	+	+	+	+

\*:a second streaking was performed by the collaborator and gave a negative result

**Collaborator**

E

TVC:  $1,2 \cdot 10^3 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
E1	-	-	-	-	/	-	-	/	-
E6	-	-	-	-	/	-	-	/	-
E8	-	-	-	-	/	-	-	/	-
E15	-	-	-	-	/	-	-	/	-
E17	-	-	-	-	/	-	-	/	-
E18	-	-	-	-	/	-	-	/	-
E20	-	-	-	-	/	-	-	/	-
E24	-	-	-	-	/	-	-	/	-
E2	+	+	+	+	+	+	+	+	+
E5	+	+	+	+	+	+	+	+	+
E9	+	+	+	+	+	+	+	+	+
E10	+	+	+	+	+	+	+	+	+
E13	+	+	+	+	+	+	+	+	+
E14	+	+	+	+	+	+	+	+	+
E19	+	+	+	+	+	+	+	+	+
E23	+	+	+	+	+	+	+	+	+
E3	+	+	+	+	+	+	+	+	+
E4	+	+	+	+	+	+	+	+	+
E7	+	+	+	+	+	+	+	+	+
E11	+	+	+	+	+	+	+	+	+
E12	+	+	+	+	+	+	+	+	+
E16	+	+	+	+	+	+	+	+	+
E21	+	+	+	+	+	+	+	+	+
E22	+	+	+	+	+	+	+	+	+

**Collaborator**

F

TVC:  $1,5 \cdot 10^5 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
F1	-	-	-	-	/	-	-	/	-
F6	-	-	-	-	/	-	-	/	-
F8	-	-	-	-	/	-	-	/	-
F15	-	-	-	-	/	-	-	/	-
F17	-	-	-	-	/	-	-	/	-
F18	-	-	-	-	/	-	-	/	-
F20	-	-	-	-	/	-	-	/	-
F24	-	-	-	-	/	-	-	/	-
F2	+	+	+	+	+	+	+	+	+
F5	+	+	+	+	+	+	+	+	+
F9	+	+	+	+	+	+	+	+	+
F10	+	+	+	+	+	+	+	+	+
F13	+	+	+	+	+	+	+	+	+
F14	+	+	+	+	+	+	+	+	+
F19	+	+	+	+	+	+	+	+	+
F23	+	+	+	+	+	+	+	+	+
F3	+	+	+	+	+	+	+	+	+
F4	+	+	+	+	+	+	+	+	+
F7	+	+	+	+	+	+	+	+	+
F11	+	+	+	+	+	+	+	+	+
F12	+	+	+	+	+	+	+	+	+
F16	+	+	+	+	+	+	+	+	+
F21	+	+	+	+	+	+	+	+	+
F22	+	+	+	+	+	+	+	+	+

**Collaborator**

G

TVC:  $5,0 \cdot 10^2 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
G1	-	-	-	-	/	-	-	/	-
G6	-	-	-	-	/	-	-	/	-
G8	-	-	-	-	/	-	-	/	-
G15	-	-	-	-	/	-	-	/	-
G17	-	-	-	-	/	-	-	/	-
G18	-	-	-	-	/	-	-	/	-
G20	-	-	-	-	/	-	-	/	-
G24	-	-	-	-	/	-	-	/	-
G2	+	+	+	+	+	+	+	+	+
G5	+	+	+	+	+	+	+	+	+
G9	+	+	+	+	+	+	+	+	+
G10	+	+	+	+	+	+	+	+	+
G13	+	+	+	+	+	+	+	+	+
G14	+	+	+	+	+	+	-*	/	-
G19	+	+	+	+	+	+	+	+	+
G23	+	+	+	+	+	+	+	+	+
G3	+	+	+	+	+	+	+	+	+
G4	+	+	+	+	+	+	+	+	+
G7	+	+	+	+	+	+	+	+	+
G11	+	+	+	+	+	+	+	+	+
G12	+	+	+	+	+	+	+	+	+
G16	+	+	+	+	+	+	+	+	+
G21	+	+	+	+	+	+	+	+	+
G22	+	+	+	+	+	+	+	+	+

\*:sample diluted by mistake in BPW and rediluted at 1/100 in OBS

**Collaborator**

H

TVC:  $4,1 \cdot 104 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
H1	-	-	-	-	/	-	-	/	-
H6	-	-	-	-	/	-	-	/	-
H8	-	-	-	-	/	-	-	/	-
H15	-	-	-	-	/	-	-	/	-
H17	-	-	-	-	/	-	-	/	-
H18	-	-	-	-	/	-	-	/	-
H20	-	-	-	-	/	-	-	/	-
H24	-	-	-	-	/	-	-	/	-
H2	+	+	+	+	+	+	+	+	+
H5	+	+	+	+	+	+	+	+	+
H9	+	+	+	+	+	+	+	+	+
H10	+	+	+	+	+	+	+	+	+
H13	+	+	+	+	+	+	+	+	+
H14	+	+	+	+	+	+	+	+	+
H19	+	+	+	+	+	+	+	+	+
H23	+	+	+	+	+	+	+	+	+
H3	+	+	+	+	+	+	+	+	+
H4	+	+	+	+	+	+	+	+	+
H7	+	+	+	+	+	+	+	+	+
H11	+	+	+	+	+	+	+	+	+
H12	+	+	+	+	+	+	+	+	+
H16	+	+	+	+	+	+	+	+	+
H21	+	+	+	+	+	+	+	+	+
H22	+	+	+	+	+	+	+	+	+

**Collaborator**

I

TVC:  $1,5 \cdot 10^4$ /ml

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
I1	-	-	-	-	/	-	-	/	-
I6	-	-	-	-	/	-	-	/	-
I8	-	-	-	-	/	-	-	/	-
I15	-	-	-	-	/	-	-	/	-
I17	-	-	-	-	/	-	-	/	-
I18	-	-	-	-	/	-	-	/	-
I20	-	-	-	-	/	-	-	/	-
I24	-	-	-	-	/	-	-	/	-
I2	+	+	+	+	+	+	+	+	+
I5	+	+	+	+	+	+	+	+	+
I9	+	+	+	+	+	+	+	+	+
I10	+	+	+	+	+	+	+	+	+
I13	+	+	+	+	+	+	+	+	+
I14	+	+	+	+	+	+	+	+	+
I19	+	+	+	+	+	+	+	+	+
I23	+	+	+	+	+	+	+	+	+
I3	+	+	+	+	+	+	+	+	+
I4	+	+	+	+	+	+	+	+	+
I7	+	+	+	+	+	+	+	+	+
I11	+	+	+	+	+	+	+	+	+
I12	+	+	+	+	+	+	+	+	+
I16	+	+	+	+	+	+	+	+	+
I21	+	+	+	+	+	+	+	+	+
I22	+	+	+	+	+	+	+	+	+

**Collaborator**

J

TVC:  $>3,0 \cdot 10^7$ /ml

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
J1	-	-	-	-	/	-	-	/	-
J6	-	-	-	-	/	-	-	/	-
J8	-	-	-	-	/	-	-	/	-
J15	-	-	-	-	/	-	-	/	-
J17	-	-	-	-	/	-	-	/	-
J18	-	-	-	-	/	-	-	/	-
J20	-	-	-	-	/	-	-	/	-
J24	-	-	-	-	/	-	-	/	-
J2	+	+	+	+	+	+	+	+	+
J5	+	+	+	+	+	+	+	+	+
J9	+	+	+	+	+	+	+	+	+
J10	+	+	+	+	+	+	+	+	+
J13	+	+	+	+	+	+	+	+	+
J14	+	+	+	+	+	+	+	+	+
J19	+	+	+	+	+	+	+	+	+
J23	+	+	+	+	+	+	+	+	+
J3	+	+	+	+	+	+	+	+	+
J4	+	+	+	+	+	+	+	+	+
J7	+	+	+	+	+	+	+	+	+
J11	+	+	+	+	+	+	+	+	+
J12	+	+	+	+	+	+	+	+	+
J16	+	+	+	+	+	+	+	+	+
J21	+	+	+	+	+	+	+	+	+
J22	+	+	+	+	+	+	+	+	+

**Collaborator**

K

TVC:  $1,0 \cdot 10^5 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
K1	-	-	-	-	/	-	-	/	-
K6	-	-	-	-	/	-	-	/	-
K8	-	-	-	-	/	-	-	/	-
K15	+	+	+	+	+	-	-	/	-
K17	+	+	+	+	+	-	-	/	-
K18	+	+	+	+	+	-	-	/	-
K20	-	-	-	-	/	-	-	/	-
K24	+	+	+	+	+	-	-	/	-
K2	+	+	+	+	+	+	+	+	+
K5	+	+	+	+	+	+	+	+	+
K9	+	+	+	+	+	+	+	+	+
K10	+	+	+	+	+	+	+	+	+
K13	+	+	+	+	+	+	+	+	+
K14	+	+	+	+	+	+	+	+	+
K19	+	+	+	+	+	+	+	+	+
K23	+	+	+	+	+	+	+	+	+
K3	+	+	+	+	+	+	+	+	+
K4	+	+	+	+	+	+	+	+	+
K7	+	+	+	+	+	+	+	+	+
K11	+	+	+	+	+	+	+	+	+
K12	+	+	+	+	+	+	+	+	+
K16	+	+	+	+	+	+	+	+	+
K21	+	+	+	+	+	+	+	+	+
K22	+	+	+	+	+	+	+	+	+

**Collaborator**

L

TVC:  $3,1 \cdot 10^4 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
L1	-	-	-	-	/	-	-	/	-
L6	-	-	-	-	/	-	-	/	-
L8	-	-	-	-	/	-	-	/	-
L15	-	-	-	-	/	-	-	/	-
L17	-	-	-	-	/	-	-	/	-
L18	-	-	-	-	/	-	-	/	-
L20	-	-	-	-	/	-	-	/	-
L24	-	-	-	-	/	-	-	/	-
L2	+	+	+	+	+	+	+	+	+
L5	+	+	+	+	+	+	+	+	+
L9	+	+	+	+	+	+	+	+	+
L10	+	+	+	+	+	+	+	+	+
L13	+	+	+	+	+	+	+	+	+
L14	+	+	+	+	+	+	+	+	+
L19	+	+	+	+	+	+	+	+	+
L23	+	+	+	+	+	+	+	+	+
L3	+	+	+	+	+	+	+	+	+
L4	+	+	+	+	+	+	+	+	+
L7	+	+	+	+	+	+	+	+	+
L11	+	+	+	+	+	+	+	+	+
L12	+	+	+	+	+	+	+	+	+
L16	+	+	+	+	+	+	+	+	+
L21	+	+	+	+	+	+	+	+	+
L22	+	+	+	+	+	+	+	+	+

**Collaborator**

M

TVC:  $2,3 \cdot 10^4 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
M1	-	-	-	-	/	-	-	/	-
M6	-	-	-	-	/	-	-	/	-
M8	-	-	-	-	/	-	-	/	-
M15	-	-	-	-	/	-	-	/	-
M17	-	-	-	-	/	-	-	/	-
M18	-	-	-	-	/	-	-	/	-
M20	-	-	-	-	/	-	-	/	-
M24	-	-	-	-	/	-	-	/	-
M2	+	+	+	+	+	+	+	+	+
M5	+	+	+	+	+	+	+	+	+
M9	+	+	+	+	+	+	+	+	+
M10	+	+	+	+	+	+	+	+	+
M13	+	+	+	+	+	+	+	+	+
M14	+	+	+	+	+	+	+	+	+
M19	+	+	+	+	+	+	+	+	+
M23	+	+	+	+	+	+	+	+	+
M3	+	+	+	+	+	+	+	+	+
M4	+	+	+	+	+	+	+	+	+
M7	+	+	+	+	+	+	+	+	+
M11	+	+	+	+	+	+	+	+	+
M12	+	+	+	+	+	+	+	+	+
M16	+	+	+	+	+	+	+	+	+
M21	+	+	+	+	+	+	+	+	+
M22	+	+	+	+	+	+	+	+	+

**Expert laboratory**

ADRIA

TVC:  $7,1 \cdot 10^3 / \text{ml}$ 

#	Reference method: ISO 6579						Alternative method		
	RVS		MKTn		Confirmation	Final result	Typical colonies	Latex test	Final result
	XLD	Hektoen	XLD	Hektoen					
N1	-	-	-	-	/	-	-	/	-
N6	-	-	-	-	/	-	-	/	-
N8	-	-	-	-	/	-	-	/	-
N15	-	-	-	-	/	-	-	/	-
N17	-	-	-	-	/	-	-	/	-
N18	-	-	-	-	/	-	-	/	-
N20	-	-	-	-	/	-	-	/	-
N24	-	-	-	-	/	-	-	/	-
N2	+	+	+	+	+	+	+	+	+
N5	+	+	+	+	+	+	+	+	+
N9	+	+	+	+	+	+	+	+	+
N10	+	+	+	+	+	+	+	+	+
N13	+	+	+	+	+	+	+	+	+
N14	+	+	+	+	+	+	+	+	+
N19	+	+	+	+	+	+	-	/	-
N23	+	+	+	+	+	+	+	+	+
N3	+	+	+	+	+	+	+	+	+
N4	+	+	+	+	+	+	+	+	+
N7	+	+	+	+	+	+	+	+	+
N11	+	+	+	+	+	+	+	+	+
N12	+	+	+	+	+	+	+	+	+
N16	+	+	+	+	+	+	+	+	+
N21	+	+	+	+	+	+	+	+	+
N22	+	+	+	+	+	+	+	+	+

**APPENDIX H - Artificial contaminations - Extension study**

Samples			Strains							Delta log	Level (CFU per test portion)	Result
N°	Product	Code	Strain	Origin	Type of stress	Applied stress						
482	Veal meat	436	S.Give	Ground beef	Seeding	48h 2-8°C	/	/	3,0	+		
483	Veal meat	4255	S.Panama	Ground beef	Seeding	48h 2-8°C	/	/	1,8	+		
484	Beef meat	436	S.Give	Ground beef	Seeding	48h 2-8°C	/	/	3,0	+		
485	Ground beef	4255	S.Panama	Ground beef	Seeding	48h 2-8°C	/	/	1,8	+		
1534	Beef trim	Ad529	S.Dublin	Beef	Seeding	48h 2-8°C	/	/	1,6	+		
767	Delicatessen (pork)	Ad2422	S.London	Pork	Spiking	TS+10%NaCl	0,5	5,2	+			
768	Delicatessen (bacon)	Ad2422	S.London	Pork	Spiking	TS+10%NaCl	0,5	5,2	+			
769	Delicatessen (dry sausage)	Ad2420	S.Brandenburg	Pork	Spiking	TS+10%NaCl	0,5	8,6	+			
770	Delicatessen (cervelas)	Ad2420	S.Brandenburg	Pork	Spiking	TS+10%NaCl	0,5	8,6	+			
771	Delicatessen (ham)	Ad227	S.Kedougou	Pork	Spiking	TS+10%NaCl	1,4	3,4	+			
772	Delicatessen (sausage)	Ad227	S.Kedougou	Pork	Spiking	TS+10%NaCl	1,4	3,4	+			
773	Delicatessen (ham)	Ad1879	S.Derby	Pork	Spiking	TS+10%NaCl	0,7	5,4	+			
774	Delicatessen( salami)	Ad1879	S.Derby	Pork	Spiking	TS+10%NaCl	0,7	5,4	+			
486	Pasteurised milk cheese	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	48h 4°C	/	1,6	+			
487	Pasteurised milk cheese	Ad1810	S.Mbandaka	Raw milk	Seeding	48h 4°C	/	2,0	-			
488	Fermented milk	Ad2213	S.Ohio	Raw cream	Seeding	48h 4°C	/	1,8	-			
489	Pasteurised cream	Ad1812	S.Duisburg	Sheep raw milk	Seeding	48h 4°C	/	1,6	+			
490	Fermented milk	Ad1168	S.Anatum	Dairy product	Seeding	48h 4°C	/	1,8	+			
491	Cream	Ad1336	S.Dublin	Raw milk cheese	Seeding	48h 4°C	/	0,8	-			
492	Raw milk	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	48h 4°C	/	1,6	-			
496	Raw milk cheese	Ad1168	S.Anatum	Dairy product	Seeding	48h 4°C	/	1,8	-			
775	Pasteurised milk cheese	Ad2213	S.Ohio	Raw cream	Spiking	HT 8min 56°C	0,5	6,0	+			
776	Fermented milk	Ad2213	S.Ohio	Raw cream	Spiking	HT 8min 56°C	0,5	6,0	+			
777	Pasteurised milk	Ad1168	S.Anatum	Dairy product	Spiking	HT 8min 56°C	0,6	6,0	+			
778	Pasteurised cream	Ad1168	S.Anatum	Dairy product	Spiking	HT 8min 56°C	0,6	6,0	+			
779	Pasteurised half skimmed milk	Ad1336	S.Dublin	Raw milk cheese	Spiking	HT 8min 56°C	0,7	3,0	+			
780	Ice cream	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	1 week -20°C	/	1,2	-			
781	Ice cream (vanilla)	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	1 week -20°C	/	1,2	+			
783	Ice cream	Ad1810	S.Mbandaka	Raw milk	Seeding	1 week -20°C	/	2,2	+			
493	Raw milk cheese	Ad1810	S.Mbandaka	Raw milk	Seeding	48h 4°C	/	2,0	+			
494	Raw milk cheese	Ad2213	S.Ohio	Raw cream	Seeding	48h 4°C	/	1,8	-			
495	Raw milk cheese	Ad1812	S.Duisburg	Sheep raw milk	Seeding	48h 4°C	/	1,6	-			
2461	Raw milk cheese	Ad2150	S.Cerro	Lactoserum	Seeding	48h 4°C	/	1,6	+			
2462	Raw milk cheese	Ad2150	S.Cerro	Lactoserum	Seeding	48h 4°C	/	1,6	-			
327	Milk powder	Ad1173	S.Cerro	Dairy product	Seeding	Lyophilized room temperature 12 days	/	1,0	+			
328	Milk powder	Ad1171	S.Tennessee	Dairy product	Seeding	Lyophilized room temperature 12 days	/	0,6	+			
330	Milk powder	Ad1173	S.Cerro	Dairy product	Seeding	Lyophilized room temperature 12 days	/	1,3	+			
331	Milk powder	Ad1171	S.Tennessee	Dairy product	Seeding	Lyophilized room temperature 12 days	/	1,0	+			
333	Maltodextrin	Ad1173	S.Cerro	Dairy product	Seeding	Lyophilized room temperature 12 days	/	0,6	+			
334	Maltodextrin	Ad1171	S.Tennessee	Dairy product	Seeding	Lyophilized room temperature 12 days	/	1,3	+			
335	Lactoserum	Ad1812	S.Duisburg	Sheep raw milk	Seeding	Lyophilized room temperature 12 days	/	1,0	+			
336	Lactoserum	510	S.Montevideo	Raw milk	Seeding	Lyophilized room temperature 12 days	/	0,6	+			
337	Lactoserum	510	S.Montevideo	Raw milk	Seeding	Lyophilized room temperature 12 days	/	1,3	+			
339	Caseinates	Ad1812	S.Duisburg	Sheep raw milk	Seeding	Lyophilized room temperature 12 days	/	2,9	+			
340	Caseinates	510	S.Montevideo	Raw milk	Seeding	Lyophilized room temperature 12 days	/	2,9	+			
6467	Fish fillets	F81	S.Derby	Mussels	Seeding	48h 2-8°C	/	1,0	-			
6468	Fish fillets	F118	S.Agona	Mussels	Seeding	48h 2-8°C	/	0,2	-			
6469	Fish fillets	2	S.Indiana	Fish flour	Seeding	48h 2-8°C	/	0,6	-			
6470	Fish fillets	F31	S.Saintpaul	Sardine fillets	Seeding	48h 2-8°C	/	0,6	+			
6604	Frozen fish fillet	Ad1409	S.Indiana	Environment	Seeding	15 days at -20°C	/	3,0	+			
6605	Frozen fish fillet	Ad1093	S.Derby	Environment	Seeding	15 days at -20°C	/	4,6	+			
6606	Frozen shrimp	Ad1409	S.Indiana	Environment	Seeding	15 days at -20°C	/	3,0	+			
6703	Raw shrimps	Ad351	S.Brandenburg	Seafood	Seeding	48h 2-8°C	/	2,2	+			
6704	Raw shrimps	Ad355	S.Senftenberg	Seafood	Seeding	48h 2-8°C	/	3,2	+			
6705	Raw shrimps	Ad351	S.Brandenburg	Seafood	Seeding	48h 2-8°C	/	2,2	+			
6246	Raw salmon	Ad1451	S.Anatum	Fish fillets	Seeding	48h 2-8°C	/	1,8	+			
6247	Raw fish fillet	Ad1409	S.Indiana	Marinated fillets	Seeding	48h 2-8°C	/	1,4	+			
6464	Seafood cocktail	F81	S.Derby	Molds	Seeding	48h 2-8°C	/	1,0	+			
6465	Seafood cocktail	2	S.Indiana	Fish flour	Seeding	48h 2-8°C	/	0,6	-			
6466	Seafood mixture	F118	S.Agona	Mussels	Seeding	48h 2-8°C	/	0,2	-			
6248	Marinated sardines	Ad2334	S.Urbana	Frozen shrimps	Seeding	48h 2-8°C	/	4,4	+			
6249	Marinated sardines	Ad2334	S.Urbana	Frozen shrimps	Seeding	48h 2-8°C	/	4,4	+			
6250	Grilled colin fillet	Ad1451	S.Anatum	Fish fillets	Seeding	48h 2-8°C	/	1,8	+			

**APPENDIX H - Artificial contaminations - Extension study**

Samples		Strains							Delta log	Level (CFU per test portion)	Result
N°	Product	Code	Strain	Origin	Type of stress	Applied stress					
6251	Cooked colin fillet	Ad1409	S.Indiana	Marinated fillets	Seeding	48h 2-8°C		/	1,4	+	
6252	Cooked shelfish	Ad1409	S.Indiana	Marinated fillets	Seeding	48h 2-8°C		/	1,4	+	
6253	Cooked shelfish	F31	S.SaintPaul	Sardines fillets	Seeding	48h 2-8°C		/	2,0	+	
6254	Cooked salmon with pastas	F31	S.SaintPaul	Sardines fillets	Seeding	48h 2-8°C		/	2,0	+	
6255	Cooked cod	F31	S.SaintPaul	Sardines fillets	Seeding	48h 2-8°C		/	2,0	+	
6256	Cooked shrimps	Ad2334	S.Urbana	Frozen shrimps	Seeding	48h 2-8°C		/	4,4	+	
6471	Surimi	F31	S.Saintpaul	Sardine fillets	Seeding	48h 2-8°C		/	0,6	+	
6472	Seafood terrine	Ad1451	S.Anatum	Fish fillets	Seeding	48h 2-8°C		/	0,6	+	
6473	Seafood terrine	2	S.Indiana	Fish flour	Seeding	48h 2-8°C		/	0,6	+	
6014	RTE (salad surimi pastas)	Ad2335	S.Wandsworth	Fish fillets	Seeding	48h 2-8°C		/	1,2	-	
6015	RTE (salad rice tuna)	Ad2335	S.Wandsworth	Fish fillets	Seeding	48h 2-8°C		/	1,2	+	
6016	RTE (salad surimi pine apple)	Ad2334	S.Urbana	Frozen shrimps	Seeding	48h 2-8°C		/	0,6	+	
6018	RTE (sandwich salmon)	Ad2335	S.Wandsworth	Fish fillets	Seeding	48h 2-8°C		/	1,2	+	
6019	RTE (sandwich salmon cheese)	Ad2334	S.Urbana	Frozen shrimps	Seeding	48h 2-8°C		/	0,6	-	
7038	Salmon terrine	Ad2727	S.Anatum	Crab	Seeding	48h 2-8°C		/	1,2	+	
7039	RTE (sandwich tuna vegetables)	Ad2332	S.Rubislaw	Shark	Seeding	48h 2-8°C		/	2,0	+	
7040	RTE (sandwich salmon cheese)	Ad2727	S.Anatum	Crab	Seeding	48h 2-8°C		/	1,2	+	
7041	Fish terrine	Ad2332	S.Rubislaw	Shark	Seeding	48h 2-8°C		/	2,0	+	
7042	RTE (salad potatoes tuna)	Ad2727	S.Anatum	Crab	Seeding	48h 2-8°C		/	1,2	+	
6602	Frozen red fruits	Ad923	S.Blockley	Environment	Seeding	15 days at -20°C		/	2,7	-	
6603	Frozen strawberries	2	S.Kottbus	Environment	Seeding	15 days at -20°C		/	4,3	-	
6688	Chive	Ad923	S.Blockley	Environment	Seeding	48h 2-8°C		/	4,2	+	
6689	Chive	2	S.Kottbus	Environment	Seeding	48h 2-8°C		/	3,0	+	
6690	Basil	1	S.Senftenberg	Environment	Seeding	48h 2-8°C		/	4,6	+	
6691	Basil	Ad929	S.Kedougou	Environment	Seeding	48h 2-8°C		/	2,0	+	
6692	Coriander	3	S.Kottbus	Environment	Seeding	48h 2-8°C		/	4,2	+	
6693	Coriander	/	S.Amsterdam	Environment	Seeding	48h 2-8°C		/	2,4	+	
6694	Fresh spinach	Ad931	S.Havana	Environment	Seeding	48h 2-8°C		/	3,2	+	
6697	Parsley	1	S.Senftenberg	Environment	Seeding	48h 2-8°C		/	4,6	+	
6698	Parsley	Ad929	S.Kedougou	Environment	Seeding	48h 2-8°C		/	2,0	+	
7101	Red cabbage	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	6,4	+	
6006	Zucchini	Ad2569	S.Virchow	Zucchini	Seeding	48h 2-8°C		/	0,6	+	
6477	Salad mixture	4	S.Senftenberg	Environment	Seeding	48h 2-8°C		/	0,8	-	
6481	Salad mixture	Ad2566	S.Livingstone	Potatoes	Seeding	48h 2-8°C		/	0,6	+	
6695	Baby leaves	Ad923	S.Blockley	Environment	Seeding	48h 2-8°C		/	4,2	+	
6696	Baby leaves	2	S.Kottbus	Environment	Seeding	48h 2-8°C		/	3,0	+	
7100	Baby leaves	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	6,4	+	
7102	Cabbage/carrot/salad/red pepper	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	6,4	+	
7103	Cabbage/carrot/salad/red pepper	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	6,4	-	
6007	Mixed vegetables under modified atmosphere	Ad2569	S.Virchow	Zucchini	Seeding	48h 2-8°C		/	0,6	-	
6008	Mixed vegetables under modified atmosphere	Ad2566	S.Livingstone	Potatoes	Seeding	48h 2-8°C		/	0,8	+	
6009	Salad under modified atmosphere	Ad2566	S.livingstone	Potatoes	Seeding	48h 2-8°C		/	0,8	-	
6010	Salad under modified atmosphere	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	1,0	+	
6011	Mixed vegetables under modified atmosphere	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	1,0	+	
6474	Coleslaw	Ad2566	S.Livingstone	Potatoes	Seeding	48h 2-8°C		/	0,6	+	
6475	Deli salad	Ad2569	S.Virchow	Zucchini	Seeding	48h 2-8°C		/	1,4	+	
6476	Celery deli salad	Ad1249	S.Typhimurium	Environment	Seeding	48h 2-8°C		/	0,8	+	
6478	Coleslaw	4	S.Senftenberg	Environment	Seeding	48h 2-8°C		/	0,8	-	
6479	Deli salad	Ad1249	S.Typhimurium	Environment	Seeding	48h 2-8°C		/	0,8	-	
6480	Celery deli salad	Ad2569	S.Virchow	Zucchini	Seeding	48h 2-8°C		/	1,4	+	
6699	Houmous	3	S.Kottbus	Environment	Seeding	48h 2-8°C		/	4,2	+	
6700	Olive tapenade	/	S.Amsterdam	Environment	Seeding	48h 2-8°C		/	2,4	+	
6701	Fresh orange juice	Ad931	S.Havana	Environment	Seeding	48h 2-8°C		/	3,2	+	
6702	Fresh juice	Ad923	S.Blockley	Environment	Seeding	48h 2-8°C		/	4,2	-	
7099	Grated carrots	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	6,4	+	
6012	Coleslaw	Ad2566	S.Livingstone	Potatoes	Seeding	48h 2-8°C		/	0,8	-	
6013	Frozen cooked potatoes	F276	S.Virchow	Curry	Seeding	48h 2-8°C		/	1,0	+	
7044	RTE (sliced carrots)	Ad1733	S.Panama	Infant cereals	Seeding	48h 2-8°C		/	1,8	+	
7045	RTE (carrots and celery)	Ad1725	S.Agona	Infant cereals	Seeding	48h 2-8°C		/	1,4	+	
7046	RTE (celery with custard)	Ad1733	S.Panama	Infant cereals	Seeding	48h 2-8°C		/	1,8	+	
7047	RTE (macedoine)	Ad1725	S.Agona	Infant cereals	Seeding	48h 2-8°C		/	1,4	+	
697	Dusts (pork industry)	S1719	S.Typhimurium	Pork industry	Seeding	48h 2-8°C		/	0,8	+	
698	Dusts (pork industry)	Ad1249	S.Typhimurium	Pork	Seeding	48h 2-8°C		/	0,6	+	

**APPENDIX H - Artificial contaminations - Extension study**

Samples		Strains							Delta log	Level (CFU per test portion)	Result
N°	Product	Code	Strain	Origin	Type of stress	Applied stress					
699	Dusts (pork industry)	SD10	S.Derby	Pork industry	Seeding	48h 2-8°C		/	1,4	+	
700	Dusts (pork industry)	ST719	S.Typhimurium	Pork industry	Seeding	48h 2-8°C		/	0,8	+	
1127	Dust (dairy industry)	Ad2149	S.Cerro	Environmental sample (milk industry)	Seeding	48h 2-8°C		/	1,8	-	
1128	Dusts (fish industry)	Ad1093	S.Derby	See products	Seeding	48h 2-8°C		/	1,2	-	
1129	Dusts (fish industry)	Ad1093	S.Derby	See products	Seeding	48h 2-8°C		/	1,2	+	
1132	Raw pastry	Ad1688	S.Stanley	Environmental sample (chocolate)	Seeding	48h 2-8°C		/	1,4	-	
1536	Dusts (vegetables industry)	Ad2034	S.Typhimurium	Cereals	Seeding	48h 2-8°C		/	2,4	+	
1537	Dusts (vegetables industry)	Ad1733	S.Panama	Infant cereals	Seeding	48h 2-8°C		/	2,6	+	
1538	Dusts (fish industry)	Ad1093	S.Anatum	Fish	Seeding	48h 2-8°C		/	2,2	-	
1543	Dusts (sausages)	Ad1876	S.Typhimurium	Sausages	Seeding	48h 2-8°C		/	2,0	+	
695	Rinsed water (pork industry)	Ad1249	S.Typhimurium	Pork	Seeding	48h 2-8°C		/	0,6	-	
699	Rinsed water (pork industry)	SD10	S.Derby	Pork industry	Seeding	48h 2-8°C		/	1,4	+	
1118	Process water (sausages/meruez)	SD10	S.Derby	Environmental sample (pork industry)	Seeding	48h 2-8°C		/	1,4	+	
1119	Process water (sausages)	Ad1249	S.Typhimurium	Environmental sample (pork industry)	Seeding	48h 2-8°C		/	1,2	+	
1120	Process water (sausages/meruez)	Ad2334	S.Urbana	See products	Seeding	48h 2-8°C		/	1,6	+	
1121	Process water (fish)	Ad351	S.Braenderup	See products	Seeding	48h 2-8°C		/	1,4	-	
1122	Process water (biscuit/cheese)	Ad2151	S.Cerro	Environmental sample (milk industry)	Seeding	48h 2-8°C		/	2,0	+	
1123	Process water (biscuit/cheese)	633	S.Typhimurium	Pastry	Seeding	48h 2-8°C		/	0,8	-	
1124	Process water (ferments)	Ad1646	S.Infantis	Environmental sample	Seeding	48h 2-8°C		/	1,8	+	
1125	Process water (ferments)	Ad1647	S.Ovakam	Environmental sample	Seeding	48h 2-8°C		/	2,0	+	
1539	Rinsed water (fish industry)	Ad1093	S.Anatum	Fish	Seeding	48h 2-8°C		/	2,2	+	
1540	Rinsed water (fish industry)	Ad1409	S.Indiana	Fish	Seeding	48h 2-8°C		/	0,6	-	
1541	Process water (pastry)	Ad1682	S.Typhimurium	Pastry	Seeding	48h 2-8°C		/	3,8	-	
1542	Process water (pastry)	633	S.Typhimurium	Pastry	Seeding	48h 2-8°C		/	1,2	+	
1547	Rinsed water (pork/beef industry)	Ad1876	S.Typhimurium	Sausages	Seeding	48h 2-8°C		/	2,0	+	
1548	Rinsed water (pork/beef industry)	2556	S.Infantis	Sausages	Seeding	48h 2-8°C		/	2,0	+	
690	Wipe (pastry)	Ad1686	S.Montevideo	Pastry	Seeding	48h 2-8°C		/	1,4	-	
691	Wipe (pastry)	Ad1685	S.Infantis	Pastry	Seeding	48h 2-8°C		/	1,2	+	
692	Wipe (pastry)	Ad1683	S.Derby	Pastry	Seeding	48h 2-8°C		/	2,0	+	
693	Wipe (pastry)	Ad1686	S.Montevideo	Pastry	Seeding	48h 2-8°C		/	1,4	+	
694	Wipe (pastry)	Ad1685	S.Infantis	Pastry	Seeding	48h 2-8°C		/	1,2	-	
1137	Wipe (fish industry)	Ad351	S.Braenderup	See products	Seeding	48h 2-8°C		/	1,4	+	
1544	Dusts (sausages)	2556	S.Infantis	Sausages	Seeding	48h 2-8°C		/	2,0	-	
1545	Wipe (pastry)	Ad1725	S.Agona	Cereals	Seeding	48h 2-8°C		/	3,8	+	
1546	Wipe (pastry)	Ad1733	S.Panama	Infant cereals	Seeding	48h 2-8°C		/	2,6	+	
99	Infant cereals (vanilla flavor)	Ad1724	S.Oranienburg	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature		/	1,4	+	
100	Infant cereals (brioche flavor)	Ad1724	S.Oranienburg	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature		/	1,4	+	
296	Half skimmed milk powder	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,4	+	
297	Skimmed milk powder	Ad2705	S.Livingstone	Milk powder	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,4	+	
298	Skimmed milk powder	Ad2705	S.Livingstone	Milk powder	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,4	-	
305	Infant cereals (honey flavor)	Ad1733	S.Panama	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature		/	1,2	+	
306	Infant cereals (cocoa flavor)	Ad2860	S.Odozi	Cocoa	Seeding	Lyophilized strain 15 days/ambient temperature		/	0	+	
340	Infant formula without probiotics	Ad1810	S.Mbandaka	Cheese	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,3	+	
341	Infant formula without probiotics	Ad1810	S.Mbandaka	Cheese	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,3	+	
342	Infant formula without probiotics	Ad1810	S.Mbandaka	Cheese	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,3	+	
958	Skimmed milk powder	Ad2213	S.Ohio	Raw cream	Spiking	HT 8 min 56°C		/	0,4	0,4	+
959	Skimmed milk powder	Ad1812	S.Duisburg	Ewe raw milk	Spiking	HT 8 min 56°C		/	0,4	1,2	+
96	Infant formula with probiotics 1.6 10 <sup>6</sup> cfu/g	Ad168	S.Anatum	Dairy product	Seeding	Lyophilized strain 15 days/ambient temperature		/	3,1	-	
97	Infant formula with probiotics 2,7 10 <sup>6</sup> cfu/g	Ad1168	S.Anatum	Dairy product	Seeding	Lyophilized strain 15 days/ambient temperature		/	3,1	+	
98	Infant formula with probiotics 7,2 10 <sup>6</sup> cfu/g	Ad1168	S.Anatum	Dairy product	Seeding	Lyophilized strain 15 days/ambient temperature		/	3,1	+	
307	Infant cereals with probiotics (cocoa flavor) 6,2 10 <sup>6</sup> cfu/g	Ad2860	S.Odozi	Cocoa	Seeding	Lyophilized strain 15 days/ambient temperature		/	0	+	
308	Infant cereals with probiotics (honey flavor) 5,3 10 <sup>6</sup> cfu/g	Ad1733	S.Panama	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature		/	1,2	-	
309	Infant cereals with probiotics (5 cereals flavor) 1,8 10 <sup>6</sup> cfu/g	Ad1733	S.Panama	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature		/	1,2	+	
960	Infant formula with probiotics 1,9 10 <sup>6</sup> cfu/g	Ad2213	S.Ohio	Raw cream	Spiking	HT 8 min 56°C		/	0,4	0,4	+
961	Infant formula with probiotics 9,7 10 <sup>6</sup> cfu/g	Ad1812	S.Duisburg	Ewe raw milk	Spiking	HT 8 min 56°C		/	0,4	1,2	+
962	Infant formula with probiotics 2,4 10 <sup>6</sup> cfu/g	Ad1722	S.Mbandaka	Raw milk	Spiking	HT 8 min 56°C		/	1,1	0,2	-
963	Infant cereals with probiotics (5 cereals) 3,3 10 <sup>6</sup> cfu/g	Ad1721	S.Virchow	Infant cereals	Spiking	HT 8 min 56°C		/	0,5	1,6	+
964	Infant cereals with probiotics (honey flavor) 7,0 10 <sup>6</sup> cfu/g	Ad1724	S.Oranienburg	Infant cereals	Spiking	HT 8 min 56°C		/	0,6	1,4	+
965	Infant cereals with probiotics (biscuit flavor) 4,9 10 <sup>6</sup> cfu/g	Ad1724	S.Oranienburg	Infant cereals	Spiking	HT 8 min 56°C		/	0,6	1,4	+
1237	Infant formula with probiotics cfu/g	Ad2706	S.Anatum	Milk powder	Spiking	HT 8 min 56°C		/	0,4	3,4	+
1238	Infant formula with probiotics cfu/g	Ad2706	S.Anatum	Milk powder	Spiking	HT 8 min 56°C		/	0,4	3,4	+
1239	Infant formula with probiotics cfu/g	Ad2706	S.Anatum	Milk powder	Spiking	HT 8 min 56°C		/	0,4	3,4	+
1240	Infant formula with probiotics 1,3 10 <sup>6</sup> cfu/g	Ad2706	S.Anatum	Milk powder	Spiking	HT 8 min 56°C		/	0,4	3,4	+
299	Whey powder	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,4	-	
300	Whey powder	Ad2705	S.Livingstone	Milk powder	Seeding	Lyophilized strain 15 days/ambient temperature		/	0,4	+	

**APPENDIX H - Artificial contaminations - Extension study**

Samples			Strains							Result
N°	Product	Code	Strain	Origin	Type of stress	Applied stress		Delta log	Level (CFU per test portion)	
301	Caseinates	Ad2297	S.Stourbridge	Raw milk cheese	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,4	+	
302	Starch	Ad2705	S.Livingstone	Milk powder	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,4	-	
303	Maltodextrin	9	S.Bovismorbificans	Caseinates dusts	Seeding	Lyophilized strain 15 days/ambient temperature	/	1,8	+	
304	Starch	9	S.Bovismorbificans	Caseinates dusts	Seeding	Lyophilized strain 15 days/ambient temperature	/	1,8	-	
566	Rye flour	Ad1725	S.Agona	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature	/	1,2	-	
567	Barley flour	Ad1721	S.Virchow	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,4	+	
568	Corn flour	Ad1724	S.Oranienburg	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,5	-	
569	Wheat flour	Ad2728	S.Havana	Sunflower	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,3	+	
570	Wheat flour	Ad1725	S.Agona	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature	/	1,2	+	
571	Wheat flour	Ad1721	S.Virchow	Infant cereals	Seeding	Lyophilized strain 15 days/ambient temperature	/	0,4	+	
1243	Corn flour	Ad1725	S.Agona	Cereals	Spiking	HT 8 min 56°C	0,5	1,6	+	
1244	Barley flour	Ad1725	S.Agona	Cereals	Spiking	HT 8 min 56°C	0,5	1,6	+	
1845136	Unpasteurized powdered egg white	WFD197	S.I sangi	Egg product environment	Spiking	15 min at 56°C	2,69	4,0	+	
1845137	Pasteurized powdered egg yolk	WFD197	S.I sangi	Egg product environment	Spiking	15 min at 56°C	2,69	4,0	+	
1845138	Pasteurized whole egg powder	WFD197	S.I sangi	Egg product environment	Spiking	15 min at 56°C	2,69	4,0	+	
1845139	30% sweet liquid egg yolk	WFD197	S.I sangi	Egg product environment	Spiking	15 min at 56°C	2,69	4,0	+	
1845140	11% salted liquid egg yolk	WFD197	S.I sangi	Egg product environment	Spiking	15 min at 56°C	2,69	4,0	+	
1845141	8% salted liquid egg yolk	LHC697	S.Enteritidis	Egg product environment	Spiking	15 min at 56°C	2,11	4,6	+	
1845142	9,3% salted liquid egg yolk	LHC697	S.Enteritidis	Egg product environment	Spiking	15 min at 56°C	2,11	4,6	+	
1845143	9% liquid whole egg salted and 10,9% sweet	LHC697	S.Enteritidis	Egg product environment	Spiking	15 min at 56°C	2,11	4,6	+	
1845144	Liquid whole egg	LHC697	S.Enteritidis	Egg product environment	Spiking	15 min at 56°C	2,11	4,6	+	
1845145	Pasteurized powdered egg yolk	LHC697	S.Enteritidis	Egg product environment	Spiking	15 min at 56°C	2,11	4,6	+	
1845157	Whole milk powder	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845158	Organic skim milk powder	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845159	Semi-skimmed milk powder	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845160	Baby milk powder 0-6 months without probiotics	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845161	Baby milk powder 10-36 months without probiotics	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845162	Baby powder 1-3 years without probiotics	WFM701	S.Cerro	Dairy products	Spiking	15 min at 56°C	1,18	5,0	+	
1845163	Baby growth milk powder 3 with goat milk without probiotics	ZDP683	S.Dublin	Dairy products	Spiking	15 min at 56°C	0,57	4,0	+	
1845164	Baby milk powder 6-12 months without probiotics LOT 1	ZDP683	S.Dublin	Dairy products	Spiking	15 min at 56°C	0,57	4,0	+	
1845165	Baby milk powder 6-12 months without probiotics LOT 2	ZDP683	S.Dublin	Dairy products	Spiking	15 min at 56°C	0,57	4,0	+	
1845166	Baby powder milk growth 1-3 years without probiotics	ZDP683	S.Dublin	Dairy products	Spiking	15 min at 56°C	0,57	4,0	+	
1845210	Violet syrup	ZTL125	S.Caracas	Powder spice	Spiking	15 min at 56°C	1,09	4,6	+	
1845211	Organic agave syrup	ZTL125	S.Caracas	Powder spice	Spiking	15 min at 56°C	1,09	4,6	+	
1845212	Agave syrup	ZTL125	S.Caracas	Powder spice	Spiking	15 min at 56°C	1,09	4,6	+	
1845213	Sucrose	ZTL125	S.Caracas	Powder spice	Spiking	15 min at 56°C	1,09	4,6	+	
1845214	Liquid sweetener	WFP183	S.Cerro	Mix snack in powder	Spiking	15 min at 56°C	2,65	4,6	+	
1845215	Powder sweetener	WFP183	S.Cerro	Mix snack in powder	Spiking	15 min at 56°C	2,65	4,6	+	
1845216	Liquid honey	WFP183	S.Cerro	Mix snack in powder	Spiking	15 min at 56°C	2,65	4,6	+	
1845217	Honey	WFP183	S.Cerro	Mix snack in powder	Spiking	15 min at 56°C	2,65	4,6	+	
1845218	Sugarpaste	WFP183	S.Cerro	Mix snack in powder	Spiking	15 min at 56°C	2,65	4,6	+	
1845209	Licorice and mint concentrate	ZTL125	S.Caracas	Powder spice	Spiking	15 min at 56°C	1,09	4,6	-	
1854699	Junior cat kibble	LCU451	S.Agama	Turkey meat	Spiking	15 min at 56°C	1,09	4,4	-	
1854700	Adult cat kibble	LCU451	S.Agama	Turkey meat	Spiking	15 min at 56°C	1,09	4,4	-	
1854701	Macaroni for dogs	LCU451	S.Agama	Turkey meat	Spiking	15 min at 56°C	1,09	4,4	-	
1854702	Dog food - 25 kg	LCU451	S.Agama	Turkey meat	Spiking	15 min at 56°C	1,09	4,4	-	
1854703	Meat in sauce for dog sauce	LCU451	S.Agama	Turkey meat	Spiking	15 min at 56°C	1,09	4,4	-	
1854704	Slow Cooked in Cat Sauce	ZLQ024	S.Oranienburg	Plants	Spiking	15 min at 56°C	1,16	4,2	-	
1854705	Hamster food	ZLQ024	S.Oranienburg	Plants	Spiking	15 min at 56°C	1,16	4,2	-	
1854708	Food for dwarf rabbits	ZLQ024	S.Oranienburg	Plants	Spiking	15 min at 56°C	1,16	4,2	-	
1854751	Cat kibble without cereals	APX671	S.Derby	Milanese veal	Spiking	15 min at 56°C	1,04	1,4	+	
1854752	Dog food with veal and carrots	APX671	S.Derby	Milanese veal	Spiking	15 min at 56°C	1,04	1,4	+	
1854753	Cat kibble	CLM641	S.Enteritidis	Bulgur	Spiking	8 min at 56°C	2,29	2,6	+	
1854754	Terrine in sauce for cats - salmon / carrots	CLM641	S.Enteritidis	Bulgur	Spiking	8 min at 56°C	2,29	2,6	+	
1854755	Cat terrine without cereals	AVU247	S.Bredeney	Turkey shoulder	Spiking	8 min at 56°C	2,46	3,2	+	
1854756	Kibble for little dog	AVU247	S.Bredeney	Turkey shoulder	Spiking	8 min at 56°C	2,46	3,2	+	
1854757	Kibble for big dog	APN015	S.Kottbus	Chicken VSM	Spiking	15 min at 56°C	2,79	2,8	+	
1854758	Beef terrine for cat	APN015	S.Kottbus	Chicken VSM	Spiking	15 min at 56°C	2,79	2,8	+	
1854759	Lamb terrine for cat	EFN653	S.Typhimurium	Pork belly	Spiking	8 min at 56°C	2,33	3,8	+	
1854760	Poultry and carrot terrine for dog	EFN653	S.Typhimurium	Pork belly	Spiking	8 min at 56°C	2,33	3,8	+	
1854761	Chicken and vegetables terrine for dog	ZUJ567	S.Putten	Chicken food	Spiking	8 min at 56°C	1,47	3,6	+	
1854762	Terrine in sauce for cats - poultry / green bean	ZUJ567	S.Putten	Chicken food	Spiking	8 min at 56°C	1,47	3,6	+	
1854766	Food for guinea pigs	ZLQ024	S.Oranienburg	Plants	Spiking	15 min at 56°C	1,16	4,2	+	
1854767	Bird food	ZLQ024	S.Oranienburg	Plants	Spiking	15 min at 56°C	1,16	4,2	+	

**APPENDIX H - Artificial contaminations - Extension study**

Samples		Strains							Result	
N°	Product	Code	Strain	Origin	Type of stress	Applied stress		Delta log	Level (CFU per test portion)	
1778879	Poultry feed	BGZ322	S. Anatum	Feed product	Spiking	15 min at 56°C		0,8	3,2	-
1854717	Oats	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	-
1854718	Rapeseed meal	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	-
1854719	Rabbit food	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	-
1854720	Corn and rapeseed flour	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	-
1778878	Horse food	BGZ322	S. Anatum	Feed product	Spiking	15 min at 56°C		0,8	3,2	+
1778881	Pig food	BGZ322	S. Anatum	Feed product	Spiking	15 min at 56°C		0,8	3,2	+
1778882	Fish food	BGZ322	S. Anatum	Feed product	Spiking	15 min at 56°C		0,8	3,2	+
1854715	Corn flour	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	+
1854716	Barley granulet	ZMF746	S. Michigan	Vegetals	Spiking	15 min at 56°C		1,81	1,0	+
1854777	Poultry feed	JAW805	S. Give	Vanilla bean powder	Spiking	8 min at 56°C		0,7	3,0	+
1854778	Oats	JAW805	S. Give	Vanilla bean powder	Spiking	8 min at 56°C		0,7	3,0	+
1854779	Soybean meal	JAW805	S. Give	Vanilla bean powder	Spiking	8 min at 56°C		0,7	3,0	+
1854780	Sheep feed	JAW805	S. Give	Vanilla bean powder	Spiking	8 min at 56°C		0,7	3,0	+
1854781	Lamb feed	JAW805	S. Give	Vanilla bean powder	Spiking	8 min at 56°C		0,7	3,0	+
1778885	Whole wheat	ZHL075	S. salamae	Cereals	Spiking	15 min at 56°C		2,0	4,4	-
1778884	Soy protein	ZHL075	S. salamae	Cereals	Spiking	15 min at 56°C		2,0	4,4	+
1778886	Pea flour	ZHL075	S. salamae	Cereals	Spiking	15 min at 56°C		2,0	4,4	+
1854709	Insect meal	ZEK839	S. Cerro	Poultry meat	Spiking	15 min at 56°C		1,98	3,8	+
1854710	Chicken flour	ZEK839	S. Cerro	Poultry meat	Spiking	15 min at 56°C		1,98	3,8	+
1854711	Buffalo flour	ZEK839	S. Cerro	Poultry meat	Spiking	15 min at 56°C		1,98	3,8	+
1854712	Organic poultry meal	ZEK839	S. Cerro	Poultry meat	Spiking	15 min at 56°C		1,98	3,8	+
1854713	Shrimp flour	CJF795	S. Ibadan	Raw swordfish	Spiking	15 min at 56°C		1,41	4,6	+
1854714	Fishmeal	CJF795	S. Ibadan	Raw swordfish	Spiking	15 min at 56°C		1,41	4,6	+

Samples		Strains							Result		
N°	Product	Code	Strain	Origin	Type of stress	Applied stress		Delta log	Level (CFU per test portion)	9	10
364,1	Cocoa Powder	QL 052016.29	S. Braenderup	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	0,4	-	-
364,2	Cocoa Powder	QL 052016.20	S. Cerro	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,0	-	-
364,3	Cocoa Powder	QL 052016.2	S. Dublin	Low moisture food (Spices)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,6	+	+
364,4	Cocoa Powder	QL 052016.18	S. Infantis	Low moisture food (Chocolate Powder)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	3,8	+	+
364,5	Cocoa Powder	QL 052016.30	S. Javiana	Low moisture food (Seasonings)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,2	-	+
364,6	Cocoa Powder	QL 052016.32	S. Kentucky	Low moisture food (Dark Chocolate Bar)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,8	-	+
364,7	Cocoa Powder	QL 052016.29	S. Braenderup	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	0,4	+	+
364,8	White Chocolate Chocolate Chip Muffin Mix	QL 052016.20	S. Cerro	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,0	+	+
364,9	Cocoa Powder	QL 052016.2	S. Dublin	Low moisture food (Spices)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,6	-	-
364,1	Chocolate Pudding Mix	QL 052016.18	S. Infantis	Low moisture food (Chocolate Powder)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	3,8	+	+
364,11	Baking Cocoa	QL 052016.30	S. Javiana	Low moisture food (Seasonings)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,2	-	-
364,12	Dutch Hot Cocoa Mix-Milk Chocolate	QL 052016.32	S. Kentucky	Low moisture food (Dark Chocolate Bar)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,8	-	-
364,13	Milk Chocolate Hot Cocoa Mix	QL 052016.29	S. Braenderup	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	0,4	+	+
364,14	Milk Chocolate Hot Cocoa Mix	QL 052016.20	S. Cerro	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,0	+	+
364,15	Chocolate Drink Powder	QL 052016.2	S. Dublin	Low moisture food (Spices)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,6	+	+
364,16	Cocoa Powder	QL 052016.18	S. Infantis	Low moisture food (Chocolate Powder)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	3,8	+	+
364,17	Chocolate Drink Powder	QL 052016.30	S. Javiana	Low moisture food (Seasonings)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,2	-	-
364,18	Cocoa Powder	QL 052016.32	S. Kentucky	Low moisture food (Dark Chocolate Bar)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,8	+	+
364,19	Cocoa Powder	QL 052016.29	S. Braenderup	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	0,4	+	+
364,21	Cocoa Powder	QL 052016.2	S. Dublin	Low moisture food (Spices)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,6	-	-
364,22	Hot Chocolate Mix	QL 052016.18	S. Infantis	Low moisture food (Chocolate Powder)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	3,8	-	-
364,23	Baking Cocoa Powder	QL 052016.30	S. Javiana	Low moisture food (Seasonings)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,2	+	+
364,24	Cocoa Powder	QL 052016.32	S. Kentucky	Low moisture food (Dark Chocolate Bar)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	2,8	+	+
364,25	Cocoa Powder	QL 052016.29	S. Braenderup	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	0,4	+	+
364,26	Organic Cocoa Powder	QL 052016.20	S. Cerro	Low moisture food (Non-Fat Dry Milk)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,0	-	-
364,69	Cocoa Powder	QL 052016.2	S. Dublin	Low moisture food (Spices)	Seeding	Lyophilized Strain 2 weeks at room temperature		/	1,6	-	-
364,27	70% Cocoa Dark Chocolate	QL 052016.6	S. Mbandaka	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,66	2,6	+	+
364,28	78% Cocoa Dark Chocolate	QL 052016.24	S. Montevideo	Low moisture food (Milk Chocolate Bar)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,68	3,0	+	+
364,29	85% Cocoa Dark Chocolate	QL 052016.43	S. Typhimurium	Environmental isolate, dairy manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,75	1,8	-	+
364,3	90% Cocoa Dark Chocolate	QL 078.2	S. Typhimurium	Environmental isolate, spice manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,72	0,8	+	+
364,31	95% Cocoa Dark Chocolate	QL 052016.19	S. Senftenberg	Low moisture food (Non-Fat Dry Milk)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,71	1,2	-	-
364,32	Chocolate Syrup	QL 227400.1	S. Westhampton	Environmental isolate, ingredient facility	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,74	2,0	+	+
364,33	Milk Chocolate Baking Chips	QL 227400.52	S. Worthington	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,68	2,4	+	+
364,34	White Chocolate Chips	QL 052016.6	S. Mbandaka	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature		0,66	2,6	-	+

**APPENDIX H - Artificial contaminations - Extension study**

Samples		Strains							Delta log	Level (CFU per test portion)	Result
N°	Product	Code	Strain	Origin	Type of stress	Applied stress					
364,35	Milk Chocolate	QL 024.20	S. Menhaden	Low Moisture Ingredient	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,69	2,2	+	+	
364,36	Dark Chocolate	QL 024.13	S. Orthmarschen	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	3,4	-	-	
364,37	Milk Chocolate	QL 052016.43	S. Typhimurium	Environmental isolate, dairy manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,75	1,8	+	+	
364,38	Milk Chocolate	QL 078.2	S. Typhimurium	Environmental isolate, spice manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	0,8	+	+	
364,39	Dark Chocolate	QL 052016.19	S. Senftenberg	Low moisture food (Non-Fat Dry Milk)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	1,2	-	-	
364,41	Dark Chocolate Almond	QL 227400.1	S. Westhampton	Environmental isolate, ingredient facility	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,74	2,0	+	+	
364,41	Dark Chocolate & Mint Swirl	QL 227400.52	S. Worthington	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,68	2,4	-	-	
364,42	Dark Chocolate & Sea Salt Caramel	QL 052016.6	S. Mbandaka	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,66	2,6	+	+	
364,43	Milk Chocolate & Caramel	QL 024.20	S. Menhaden	Low Moisture Ingredient	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,69	2,2	-	-	
364,44	Dark Chocolate	QL 024.13	S. Orthmarschen	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	3,4	+	+	
364,45	80% Cacao	QL 052016.43	S. Typhimurium	Environmental isolate, dairy manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,75	1,8	+	+	
364,46	Chocolate Pudding	QL 078.2	S. Typhimurium	Environmental isolate, spice manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	0,8	+	+	
364,67	Dark Chocolate	QL 052016.19	S. Senftenberg	Low moisture food (Non-Fat Dry Milk)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	1,2	+	+	
364,68	Dark Chocolate	QL 227400.1	S. Westhampton	Environmental isolate, ingredient facility	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,74	2,0	+	+	
364,7	Dark Chocolate	QL 227400.52	S. Worthington	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,68	2,4	-	-	
364,71	Dark Chocolate	QL 052016.6	S. Mbandaka	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,66	2,6	-	-	
364,72	Dark Chocolate	QL 024.20	S. Menhaden	Low Moisture Ingredient	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,69	2,2	-	-	
364,73	Dark Chocolate	QL 024.13	S. Orthmarschen	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	3,4	-	-	
364,74	Dark Chocolate	QL 052016.43	S. Typhimurium	Environmental isolate, dairy manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,75	1,8	-	-	
364,47	Raw Organic Cacao Paste/Liquor	QL 078.2	S. Typhimurium	Environmental isolate, spice manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	0,8	+	+	
364,48	Cacao Butter	QL 052016.19	S. Senftenberg	Low moisture food (Non-Fat Dry Milk)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	1,2	+	+	
364,49	Cacao Paste	QL 227400.1	S. Westhampton	Environmental isolate, ingredient facility	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,74	2,0	+	+	
364,51	Chocolate Liquor Chunks	QL 052016.6	S. Mbandaka	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,66	2,6	+	+	
364,52	Cocoa Butter Refined	QL 024.20	S. Menhaden	Low Moisture Ingredient	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,69	2,2	-	+	
364,53	Organic Cacao Paste	QL 024.13	S. Orthmarschen	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	3,4	-	+	
364,54	Organic Cocoa Butter Wafers	QL 024.7	S. Kaitaan	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	2,8	+	+	
364,55	Organic Raw Cacao Beans	QL 052016.18	S. Infantis	Low moisture food (Chocolate Powder)	Seeding	Lyophilized Strain 2 weeks at room temperature	/	2,6	-	+	
364,56	Unrefined Cocoa Butter	QL 024.13	S. Orthmarschen	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	3,4	+	+	
364,57	Cocoa Beans	QL 052016.30	S. Javiana	Low moisture food (Seasonings)	Seeding	Lyophilized Strain 2 weeks at room temperature	/	2,2	+	+	
364,58	Cocoa Butter Refined	QL 024.7	S. Kaitaan	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	2,8	-	-	
364,59	Cocoa Beans	QL 227163.2R	S. Livingstone	Environmental isolate, spice manufacturing plant	Seeding	Lyophilized Strain 2 weeks at room temperature	/	3,0	+	+	
364,6	Organic Cocoa Butter Wafers	QL 024.7	S. Kaitaan	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	2,8	+	+	
364,62	Cocoa beans	QL 227163.2R	S. Livingstone	Environmental isolate, spice manufacturing plant	Seeding	Lyophilized Strain 2 weeks at room temperature	/	3,0	-	-	
364,63	Raw Cacao Beans	QL 227163.2R	S. Livingstone	Environmental isolate, spice manufacturing plant	Seeding	Lyophilized Strain 2 weeks at room temperature	/	3,0	+	+	
364,64	Cocoa Butter	QL 024.7	S. Kaitaan	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	2,8	+	+	
364,65	Organic Raw Cacao Beans	QL 227163.2R	S. Livingstone	Environmental isolate, spice manufacturing plant	Seeding	Lyophilized Strain 2 weeks at room temperature	/	3,0	-	-	
364,66	Cocoa Butter	QL 052016.43	S. Typhimurium	Environmental isolate, dairy manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,75	1,8	+	+	
364,75	Cocoa Butter	QL 078.2	S. Typhimurium	Environmental isolate, spice manufacturing plant	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,72	0,8	-	-	
364,76	Cocoa Butter	QL 052016.19	S. Senftenberg	Low moisture food (Non-Fat Dry Milk)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	1,2	-	-	
364,77	Cocoa Butter	QL 227400.1	S. Westhampton	Environmental isolate, ingredient facility	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,74	2	-	-	
364,78	Cocoa Butter	QL 227400.52	S. Worthington	Low moisture food (Spices)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,68	2,4	-	-	
364,79	Cocoa Butter	QL 052016.24	S. Montevideo	Low moisture food (Milk Chocolate Bar)	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,68	3,0	-	-	
364,8	Cocoa Butter	QL 024.20	S. Menhaden	Low Moisture Ingredient	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,69	2,2	-	-	
364,81	Cocoa Butter	QL 024.7	S. Kaitaan	Low Moisture Product	Seeding	Heat Stressed 10 ± 1 minute at 50 ± 1°C for 2 weeks at room temperature	0,71	2,8	-	-	

## APPENDIX I

### Sensitivity raw results

#### Renewal study (SURETECT data) : 1 2 3 4 5 8

m: minoritary level of target analyte

M : majoritary level of target analyte

P: pure culture level of target analyte

1/2 : 50% level of target analyte

(x): number of colonies in the plate

-: no typical colonies but presence of background microflora

st: plate without any colony

d: doubtful result

PA: positive agreement

NA: negative agreement

ND: negative deviation

PD: positive deviation

PPNA: positive presumptive negative agreement

PPND : positive presumptive negative deviation

0: results are not available

w: weak reaction

/: not realized

#### Extension study : 6 7

##### Bacterial burden

Ø: no culture

L = low

M = moderate

H = high

/: not realized

##### Distribution of flora

A = pure culture of suspect colonies

B = mixture with a majority of suspect colonies

C = mixture with a minority of suspect colonies

D = mixture with rare suspect colonies

E = absence of suspect colonies

(x): x colonies characteristic of Salmonella if  $x \leq 5$

#### Extension study : 9 10

t	Only typical colonies present
at	Only atypical colonies present
m	Both typical and atypical colonies present
ng	No growth present

Meat products

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method						Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C								All confirmatory tests	Final result	Agreement						
						XLD		ASAP				Brilliance Salmonella				RVS / Brilliance Salmonella												
						Typical colonies	Latex	Microbact	Reference method tests			Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests				Final result	Agreement				
2016	a	7466	Pork meat	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/	/			
2016	a	7467	Pork meat	/	+md (NC)	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA				
2016	a	7468	Pork meat	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	7469	Pork meat	/	-	-	-	-	/	A	+m/+	+	+	+	+M	+	/	/	/	P	PD	+	P	PD				
2016	a	7470	Pork meat (blanquette)	/	+md (NC)	-	+md/-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA				
2016	a	7471	Ground pork meat	/	+md	+m	+1/2	+m	Salmonella spp	P	+m/+	+	+	+	+1/2	+	/	/	/	P	PA	+	P	PA				
2016	a	7472	Pork meat	/	-	-	-	-	/	A	+d/+	+	+	+	+m	+	/	/	/	P	PD	+	P	PD				
2016	a	7473	Pork meat	/	-	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA				
2016	a	7474	Pork meat	/	-	-	-	-	/	A	+d/+	+	+	+	-	/	/	/	/	P	PD	-	A	NA				
2016	a	7477	Pork meat	/	+md	+M	+M	+M	S. Rissen	P	-	/	/	/	-	/	/	/	/	A	ND	-	A	ND				
2016	a	434	Seasoned pork meat	/	+d/+	-	-	-	S. Typhimurium	P	+1/2	+	+	+	+M	+	/	/	/	P	PA	+	P	PA				
2016	a	435	Frozen beef	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	436	Pork meat	/	-	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA				
2016	a	437	Pork meat	/	+d/-	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA				
2016	a	482	Veal meat	SE	3,0	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	/	P	PA	+	P	PA				
2016	a	483	Veal meat	SE	1,8	-	-	-	/	A	+1/2	+	+	+	+p	+	/	/	/	P	PD	+	P	PD				
2016	a	484	Beef meat	SE	3,0	+d/-	-	+d/-	/	A	+p	+	+	+	+p	+	/	/	/	P	PD	+	P	PD				
2016	a	485	Ground beef	SE	1,8	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	/	P	PA	+	P	PA				
2016	a	1183	Pork meat	/	/	+1/2	+m	+m	Salmonella spp	P	+mni/+	+	+	+	+1/2	+	/	/	/	P	PA	+	P	PA				
2016	a	1184	Pork meat	/	/	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	1185	Pork meat	/	/	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	1186	Frozen pork meat	/	/	-	-	-	/	A	-	/	/	/	st	/	/	/	/	A	NA	/	/	/				
2016	a	1187	Pork meat	/	/	-	st	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	1190	Ground pork meat	/	/	+1/2	+1/2	+m	+1/2	Salmonella spp	P	+m	+	+	+	+M	+	/	/	/	P	PA	+	P	PA			
2016	a	1534	Beef trim	SE	1,6	+M	-	+dni/+	-	Salmonella spp	P	+d	-	Serratia marcescens	-	-(XLD+)	+	+	+	A (FN)	PA ND (PP)	-(XLD:+)	A (FN)	PA ND (PP)				
2016	a	2043	Pork meat	/	/	-	-	-	/	A	-	/	/	/	st	/	/	/	/	A	NA	/	/	/				
2016	a	2044	Pork meat	/	/	-	-	-	/	A	-	/	/	/	st	/	/	/	/	A	NA	/	/	/				
2016	a	2261	Pork meat	/	/	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/				
2016	a	2262	Pork meat	/	/	+m	+m	+1/2	+1/2	Salmonella spp	P	+md	+	+	+	+1/2	+	/	/	/	P	PA	+	P	PA			
2016	b	7458	Chicken meat	/	/	+1/2	+m	+1/2	+1/2	S. Virchow	P	-	/	/	/	-	/	/	/	/	A	ND	-	A	ND			
2016	b	7460	Turkey meat	/	/	+md (NC)	-	+m/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA				
2016	b	7461	Chicken meat	/	/	+1/2	+1/2	+m/-	+1/2	Salmonella spp	P	+1/2	+	+	+	+1/2	+	/	/	/	P	PA	+	P	PA			
2016	b	7462	Turkey meat	/	/	+md (NC)	-	+m/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA				
2016	b	7463	Chicken meat	/	/	+1/2	+1/2	+m/-	+M	Salmonella spp	P	+m/+	+	+	+	+M	+	/	/	/	P	PA	+	P	PA			
2016	b	7464	Duck meat	/	/	-	-	-	/	A	+m/+	+	+	+	+p	+	/	/	/	P	PD	+	P	PD				
2016	b	7465	Duck meat	/	/	+md (NC)	-	-	-	/	A	+m/+	+	+	+	+1/2	+	/	/	/	P	PD	+	P	PD			
2016	b	7475	Chicken liver	/	/	+md	+M	+m	+M	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	b	7476	Turkey meat	/	/	+md (NC)	-	+d/-	-	/	A	+m/+	+	+	+	+1/2	+	/	/	/	P	PD	+	P	PD			
2016	b	424	Chicken meat	/	/	+M	+1/2	+1/2	+1/2	S. Typhimurium	P	-	/	/	/	-	/	/	/	/	A	ND	-	A	ND			
2016	b	425	Chicken meat	/	/	+1/2d(NC)	-	+md(NC)	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA				
2016	b	426	Chicken meat	/	/	+M	+M	+1/2	+1/2	Salmonella spp	P	+m/+	+	+	+	+M	+	/	/	/	P	PA	+	P	PA			
2016	b	427	Chicken meat	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	428	Chicken meat	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	429	Chicken meat	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	430	Chicken meat	/	/	+M	+M	+1/2	+1/2	Salmonella spp	P	+m/+	+	+	+	+M	+	/	/	/	P	PA	+	P	PA			
2016	b	431	Seasoned turkey meat	/	/	-	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	1191	Frozen poultry meat	/	/	+M	-	+m	-	Salmonella spp	P	-	/	/	/	+d	+	+	+	A (FN)	ND	5x(MSRV/RVS/MKTn):+	P	PA				
2016	b	1192	Frozen guinea fowl	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	1193	Poultry meat	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				

Meat products

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method						Alternative method : Salmonella Precis								Storage 72h - 5±3°C											
						RVS broth		MKTn broth		Confirmation	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C								Confirmatory tests				All confirmatory tests	Final result	Agreement					
						XLD		ASAP				Brilliance Salmonella				RVS / Brilliance Salmonella				Final result											
						Typical colonies	Latex	Microbact	Reference method tests			Typical colonies	Latex	Microbact	Reference method tests	Final result															
2016	b	1194	Poultry meat	/	/	+m	+M	+M	+p	S. Typhimurium	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND							
2016	b	2041	Chicken meat	/	/	+m	+m	+1/2	+1/2	Salmonella spp	P	+M	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	b	2042	Chicken meat	/	/	+d (NC on TSA)	-	+d (NC on TSA)	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	7478	Sausages	/	/	+md	+p	+M	+1/2	Salmonella spp	P	+m/+	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	7479	Seasoned turkey meat	/	/	+md (NC)	-	+m/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA							
2016	c	7480	Sausages	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	432	Sausages	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	433	Ground seasoned pork meat	/	/	+M	+M	+m	+m	Salmonella spp	P	+m/+	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	438	Ground seasoned pork meat	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	439	Ground seasoned pork meat	/	/	-	-	+d/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA							
2016	c	767	Delicatessen (pork)	SP	5,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	768	Delicatessen (bacon)	SP	5,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	769	Delicatessen (dry sausage)	SP	8,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	770	Delicatessen (cervelas)	SP	8,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	771	Delicatessen (ham)	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	772	Delicatessen (sausage)	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	773	Delicatessen (ham)	SP	5,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	774	Delicatessen( salami)	SP	5,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA						
2016	c	1188	Sausages	/	/	-	+d	+d	+m	S. Derby	P	-	/	/	/	+m	+	+	+	A (FN)	ND	+	P	PA							
2016	c	2038	Delicatessen	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	2039	Delicatessen	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							
2016	c	2040	Sausages	/	/	st	st	st	st	/	A	st				st	/	/	/	A	NA	/	/	/							
2016	c	3748	Delicatessen	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/							

Dairy products

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method				Final result	Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C							
						RVS broth		MKTTn broth			Serotype	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C								Final result	Agreement	All confirmatory tests		Storage 72h - 5±3°C				
						XLD	ASAP	XLD	ASAP			Confirmatory tests											Brilliance Salmonella		RVS / Brilliance Salmonella			
						Typical colonies	Latex	Microbact	Reference method tests			Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests			All confirmatory tests	Final result	Agreement	Storage 72h - 5±3°C			
2016	a	486	Pasteurised milk cheese	SE	1,6	+M	+M	+M	+M	Salmonella spp	P	+d/-	/	/	/	-	/	/	/	A	ND	-	A	ND				
2016	a	487	Pasteurised milk cheese	SE	2,0	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	a	488	Fermented milk	SE	1,8	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	-	A	NA				
2016	a	489	Pasteurised cream	SE	1,6	+p	+p	+M	+M	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND				
2016	a	490	Fermented milk	SE	1,8	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	a	491	Cream	SE	0,8	st	st	st	st	/	A	-(XLD+)	/	/	/	-(XLD+)	+	/	/	A (FN)	NA	-(+XLD)	A	NA				
2016	a	492	Raw milk	SE	1,6	-	-	-	-	/	A	-	/	/	/	+d/+	+	+	+	A (FN)	NA	-	A	NA				
2016	a	496	Raw milk cheese	SE	1,8	-	-	-	st	/	A	st	/	/	/	st	/	/	/	A	NA		A	NA				
2016	a	775	Pasteurised milk cheese	SP	6,0	+1/2	+1/2	+1/2	+m	Salmonella spp	P	+m	+	+	+	+M	+	/	/	P	PA	+	P	PA				
2016	a	776	Fermented milk	SP	6,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	a	777	Pasteurised milk	SP	6,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	a	778	Pasteurised cream	SP	6,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	a	779	Pasteurised half skimmed milk	SP	3,0	+p	-	+p	-	Salmonella spp	P	-	/	/	/	-(XLD+)	+	/	/	A (FN)	ND	-(XLD+)	A	ND				
2016	a	780	Ice cream	SE	1,2	st	st	st	st	/	A	-				st	/	/	/	A	NA	/	/	/				
2016	a	781	Ice cream (vanilla)	SE	1,2	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD				
2016	a	783	Ice cream	SE	2,2	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD				
2016	a	2023	Ice cream	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	a	2024	Ice cream	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	a	2025	Pasteurised milk	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	a	2026	Pasteurised milk	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	a	2027	Pasteurised cheese	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	b	7742	Raw milk cheese	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	7743	Raw milk cheese	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	7744	Raw milk cheese	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	7745	Raw milk	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	7746	Ewe raw milk	/	/	-	+d	-	+d	Salmonella spp	P	+d	+	+	+	+p	-	/	/	P	PA	+d	P	PA				
2016	b	7747	Ewe raw milk	/	/	+Md	+d	+md/-	+d	Salmonella spp	P	+d	+	+	+	+p	-	/	/	P	PA	+d	P	PA				
2016	b	7748	Ewe raw milk	/	/	-	-	-	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	7749	Ewe raw milk	/	/	st	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	b	417	Ewe raw milk	/	/	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	b	418	Ewe raw milk	/	/	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	b	419	Ewe raw milk	/	/	+p	+p	+p	+p	Salmonella spp	P	+p	+d	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	b	420	Ewe raw milk	/	/	+p	+p	+p	+p	Salmonella spp	P	+p	+d	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	b	421	Ewe raw milk	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	b	422	Ewe raw milk	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	b	423	Ewe raw milk	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	b	493	Raw milk cheese	SE	2,0	+M	+m	+md/-	+M	Salmonella spp	P	-	/	/	/	st	/	/	/	A	ND	-(5MSRV/5RVS/5MKTNN)	A	ND				
2016	b	494	Raw milk cheese	SE	1,8	-	-	+d/-	+d (NC)	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA				
2016	b	495	Raw milk cheese	SE	1,6	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	b	2461	Raw milk cheese	SE	1,6	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	st	/	/	/	A	ND	-	A	ND				
2016	b	2462	Raw milk cheese	SE	1,6	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	327	Milk powder	SE	1	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD				

Dairy products

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method				Serotype	Final result	Alternative method : Salmonella Precis							Final result	Agreement	Storage 72h - 5±3°C							
						RVS broth		MKTn broth				BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests						All confirmatory tests	Final result	Agreement				
						XLD	ASAP	XLD	ASAP			Brilliance Salmonella				RVS / Brilliance Salmonella												
						Typical colonies	Latex	Microbact	Reference method tests			Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests									
2016	c	328	Milk powder	SE	0,6	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	st	/	/	- (5MSRV / 5RVS / 5MKTn)	A	ND	-	A	ND				
2016	c	330	Milk powder	SE	1,3	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	331	Milk powder	SE	1	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	333	Maltodextrin	SE	0,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	334	Maltodextrin	SE	1,3	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	335	Lactoserum	SE	1	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	336	Lactoserum	SE	0,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	337	Lactoserum	SE	1,3	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	339	Caseinates	SE	2,9	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	340	Caseinates	SE	2,9	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA				
2016	c	2028	Caseines	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2029	Skimmed milk powder	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2030	Lactoproteins	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2031	Maltodextrine	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2032	Caseinates	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2033	Lactoserum proteins	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	c	2034	Powder lactose	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/				
2016	c	2037	Skimmed milk powder	/	/	st	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2263	Skimmed milk powder	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				
2016	c	2264	Lactoserum proteins	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/				

Seafood products

Study	Type	#	Product	Injury protocol	Inoculation level / 25g	ISO 6579-1 method				Alternative method : Salmonella Precis										Final result	Agreement	Storage 72h - 5±3°C										
						RVS broth		MKTn broth		Serotype	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C								Confirmatory tests				Final result	Agreement	All confirmatory tests		Final result		Agreement		
						XLD	ASAP	XLD	ASAP			Brilliance Salmonella				RVS / Brilliance Salmonella				Typical colonies		Latex	Microbact	Reference method tests	Typical colonies		Latex	Microbact	Reference method tests			
2016	a	6467	Fish fillets	SE	1,0	-	-	-	-	/	A	-	/	/	/	+p	+	+	+	A (FN)	NA	+	P	PD								
2016	a	6468	Fish fillets	SE	0,2	-	+md/-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/								
2016	a	6469	Fish fillets	SE	0,6	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/								
2016	a	6470	Fish fillets	SE	0,6	+m	+1/2	+p	+p	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND								
2016	a	6604	Frozen fish fillet	SE	3,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2016	a	6605	Frozen fish fillet	SE	4,6	^p	+p	+p	+p	Salmonella spp	P	+p	+M	+	+	+p	+	+	/	P	PA	+	P	PA								
2016	a	6606	Frozen shrimp	SE	3,0	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	+	/	P	PA	+	P	PA								
2016	a	6703	Raw shrimps	SE	2,2	+m	+1/2	-	+m	Salmonella spp	P	+1/2	+	+	+	+m	+	/	/	P	PA	+	P	PA								
2016	a	6704	Raw shrimps	SE	3,2	+1/2	+1/2	+m	+m/	Salmonella spp	P	+d/+	+	+	+	+1/2	+	+	/	P	PA	+	P	PA								
2016	a	6705	Raw shrimps	SE	2,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	+	/	P	PA	+	P	PA								
2016	a	7118	Frozen fish fillet	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/								
2016	a	7119	Frozen fish fillet	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/								
2016	a	7120	Frozen fish fillet	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/								
2017	a	6246	Raw salmon	SE	1,8	+M	+p	+M	+M	Salmonella spp	P	+1/2	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	a	6247	Raw fish fillet	SE	1,4	+M	+M	+m	+m	Salmonella spp	P	+m	+	+	+	+p	+	+	/	P	PA	+	P	PA								
2017	a	6257	Raw fish fillet	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA								
2017	a	6258	Raw salmon fillet	/	/	st	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA								
2017	a	6259	Raw fish fillet	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	-	A	NA								
2017	a	6260	Raw macquerel fillet	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA								
2017	a	7422	Fish fillets	/	/	+M (C. youngae)	-	+M (C. youngae)	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/								
2016	b	6464	Seafood cocktail	SE	1,0	+M	+M	+M	+p	Salmonella spp	P	+p	+	+	+	+p	+			P	PA	+	P	PA								
2016	b	6465	Seafood cocktail	SE	0,6	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/									
2016	b	6466	Seafood mixture	SE	0,2	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/								
2017	b	6248	Marinated sardines	SE	4,4	+p	+p	+p	+p	Salmonella spp	P	+p	+w	+	+	+p	-	/	/	P	PA	+	P	PA								
2017	b	6249	Marinated sardines	SE	4,4	+p	+p	+M	+M	Salmonella spp	P	+p	-	+	+	+p	-	/	/	P	PA	+	P	PA								
2017	b	6250	Grilled colin fillet	SE	1,8	+M	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	b	6251	Cooked colin fillet	SE	1,4	+M	+M	+m	+m	Salmonella spp	P	+m	+	+	+	+M	+	/	/	P	PA	+	P	PA								
2017	b	6252	Cooked shellfish	SE	1,4	+M	+M	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	b	6253	Cooked shellfish	SE	2,0	+M	+M	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	b	6254	Cooked salmon with pastas	SE	2,0	+M	+M	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	b	6255	Cooked cod	SE	2,0	+M	+M	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA								
2017	b	6256	Cooked shrimps	SE	4,4	+M	+M	+p	+p	Salmonella spp	P	+p	-	+	+	+p	-	/	/	P	PA	+	P	PA								
2017	b	6261	Cooked shrimps	/	/	st	st	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/									
2017	b	6262	Cooked fish	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/								
2017	b	6263	Cooked salmon with pastas	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/								
2017	b	6264	Cooked shellfish with pastas	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/								
2017	b	6265	Cooked shellfish	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/								
2017	b	6266	Cooked colin fillet	/	/	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/									
2017	b	6267	Grilled colin fillet	/	/	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/									
2017	b	6268	Marinated sardines	/	/	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	-	A	NA									
2016	c	6471	Surimi	SE	0,6	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD								
2016	c	6472	Seafood terrine	SE	0,6	+p	+p	+p	+p	Salmonella spp	P	st				st	/	/	/	A	ND	-	A	ND								
2016	c	6473	Seafood terrine	SE	0,6	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD								
2016	c	7116	Salmon terrine	/	/	st	st	st	st	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/								

Seafood products

Study	Type	#	Product	Injury protocol	Inoculation level /25g	ISO 6579-1 method				Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C				
						RVS broth		MKTn broth		Serotype	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests				All confirmatory tests	Final result	Agreement		
						XLD	ASAP	XLD	ASAP			Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests				Storage 72h - 5±3°C	
2016	c	7117	Seafood terrine	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	6014	RTE (salad surimi pastas)	SE	1,2	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	6015	RTE (salad rice tuna)	SE	1,2	st	st	st	st	/	A	+p	+vw	+	+	+p	+vw	/	/	P	PD	+	P	PD
2017	c	6016	RTE (salad surimi pineapple)	SE	0,6	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	st	/	/	/	A	ND	-	A	ND
2017	c	6018	RTE (sandwich salmon)	SE	1,2	+(1)	+m	+M	+M	Salmonella spp	P	+m	+vw	+	+	+M	+vw			P	PA	+	P	PA
2017	c	6019	RTE (sandwich salmon cheese)	SE	0,6	st	st	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	6031	RTE (salad rice tuna)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/
2017	c	6032	RTE (salad surimi pastas)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	6033	RTE (salad pastas cucumber)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	6034	RTE (salad surimi pine apple)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/
2017	c	6035	RTE (sandwich salmon)	/	/	-	-	+md (C.freundii)	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA
2017	c	6036	RTE (sandwich tuna)	/	/	-	-	+md (C. youngae / C. freundii)	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA
2017	c	6037	RTE (sandwich salmon cheese)	/	/	-	-	st	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/
2017	c	6038	RTE (sandwich tuna vegetables)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/
2017	c	7038	Salmon terrine	SE	1,2	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	st	/	/	/	A	ND	-	A	ND
2017	c	7039	RTE (sandwich tuna vegetables)	SE	2,0	+M	+M	+M	+M	Salmonella spp	P	+m	+	+	+	+M	+	/	/	P	PA	+	P	PA
2017	c	7040	RTE (sandwich salmon cheese)	SE	1,2	+p	+p	+M	+M	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA
2017	c	7041	Fish terrine	SE	2,0	+p	+p	+p	+p	Salmonella spp	P	-	/	/	5RVS/5MKT N/5MSRV	st	/	/	/	A	ND	-	A	ND
2017	c	7042	RTE (salad potatoes tuna)	SE	1,2	+M	+M	+p	+p	Salmonella spp	P	+p	+	+	+	+M	+	/	/	P	PA	+	P	PA

Vegetables

Study	Type	#	Product	Injury protocol	Inoculation level /25 g	ISO 6579-1 method				Final result	Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C									
						RVS broth		MKTn broth				BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests						Final result	All confirmatory tests	Final result		Agreement				
						XLD	ASAP	XLD	ASAP		Brilliance Salmonella				RV/S / Brilliance Salmonella															
											Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests												
2016	a	6602	Frozen red fruits	SE	2,7	st	st	st	st	/	A	-	/	/	/	st	/	/	/	A	NA									
2016	a	6603	Frozen strawberries	SE	4,3	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA									
2016	a	6688	Chive	SE	4,2	+p	+p	+m	+m	Salmonella spp	P	+m/+	+	+	+	+p	+	/	/	P	PA	+	P	PA						
2016	a	6689	Chive	SE	3,0	+p	+p	+1/2	+1/2	Salmonella spp	P	+m	+	+	+	+p	+	/	/	P	PA	+	P	PA						
2016	a	6690	Basil	SE	4,6	+M	+M	+m	+m	Salmonella spp	P	+m	+	+	+	+M	+	/	/	P	PA	+	P	PA						
2016	a	6691	Basil	SE	2,0	+M	+M	-	+m	Salmonella spp	P	+md	+	+	+	+M	+w	/	/	P	PA	+	P	PA						
2016	a	6692	Coriander	SE	4,2	+M	+M	+M	+M	Salmonella spp	P	+1/2	+	+	+	+p	+	/	/	P	PA	+	P	PA						
2016	a	6693	Coriander	SE	2,4	-	-	-	-	/	A	+m	+	+	+	-	/	/	/	P	PD	-	A	NA						
2016	a	6694	Fresh spinach	SE	3,2	+M	+M	+1/2	+1/2	Salmonella spp	P	-				+p	+w	+	+	A (FN)	ND	+	P	PA						
2016	a	6697	Parsley	SE	4,6	+M	+M	+m	+m	Salmonella spp	P	+md	+	+	+	+M	+	+	+	P	PA	+	P	PA						
2016	a	6698	Parsley	SE	2,0	+1/2	+1/3	+m	+m	Salmonella spp	P	+m/+	+	+	+	+1/2	+	+	+	P	PA	+	P	PA						
2016	a	7101	Red cabbage	SE	6,4	+p	+p	+M	+p	Salmonella spp	P	+p	+	+	+	+p	+	+	+	P	PA	+	P	PA						
2016	a	7106	Red cabbage	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA									
2016	a	7107	Parsley	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	a	7108	Parsley	/	/	-	-	+md/-	+md/-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	a	7109	Coriander	/	/	-	-	+md/-	+md/-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	a	7110	Chive	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	a	7111	Basil	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2017	a	6006	Zucchini	SE	0,6	+M	+M	+M	+M	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND						
2017	a	6021	Zucchini	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	b	6477	Salad mixture	SE	0,8	-	-	-	-	/	A	-	/	/	/	+d	+	+	+	A (FN)	NA	+	P	PD						
2016	b	6481	Salad mixture	SE	0,6	+1/2	+1/2	+M	+M	Salmonella spp	P	-	/	/	/	+M	+	+	+	A (FN)	ND	+	P	PA						
2016	b	6695	Baby leaves	SE	4,2	+p	+p	+1/2	+1/2	Salmonella spp	P	+m/+	+	+	+	+p	+			P	PA	+	P	PA						
2016	b	6696	Baby leaves	SE	3,0	+M	+M	+m	+m	Salmonella spp	P	+md/-	-	-	-	+p	+	+	+	A (FN)	ND	+	P	PA						
2016	b	7100	Baby leaves	SE	6,4	+M	+M	+1/2	+1/2	Salmonella spp	P	+md/+	+	+	+	+p	+			P	PA	+	P	PA						
2016	b	7102	Cabbage/carrot/salad/red pepper	SE	6,4	+M	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA						
2016	b	7103	Cabbage/carrot/salad/red pepper	SE	6,4	st	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA									
2016	b	7105	Baby leaves	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	b	7112	Baby leaves	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	b	7113	Baby leaves	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	b	7114	Baby leaves	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2016	b	7115	Mesclun	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA									
2017	b	6007	Mixed vegetables under modified atmosphere	SE	0,6	-	-	+md (C. youngae / C. freundii)	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA						
2017	b	6008	Mixed vegetables under modified atmosphere	SE	0,8	-	-	+md (C. youngae )	-	/	A	+m	+	+	+	+M	+	/	/	P	PD	+	P	PD						
2017	b	6009	Salad under modified atmosphere	SE	0,8	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA									
2017	b	6010	Salad under modified atmosphere	SE	1,0	-	-	-	-	/	A	+M	+	+	+	+p	+	/	/	P	PD	+	P	PD						
2017	b	6011	Mixed vegetables under modified atmosphere	SE	1,0	+M	+M	+m	+m	Salmonella spp	P	+1/2	+	+	+	+p	+	/	/	P	PA	+	P	PA						
2017	b	6022	Mixed vegetables under modified atmosphere	/	/	-	-	+md (C. youngae )	/	A	-					-	/	/	/	A	NA	-	A	NA						

Vegetables

Study	Type	#	Product	Injury protocol	Inoculation level /25 g	ISO 6579-1 method				Final result	Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C						
						RVS broth		MKTn broth			Serotype	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests				All confirmatory tests	Final result	Agreement	Storage 72h - 5±3°C				
						XLD	ASAP	XLD	ASAP		Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests	Brilliance Salmonella	RVS / Brilliance Salmonella			Final result	Agreement	All confirmatory tests	Final result	Agreement
2017	b	6023	Mixed vegetables under modified atmosphere	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	b	6024	Salad under modified atmosphere	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2016	c	6474	Coleslaw	SE	0,6	+M	+M	+M	+M	Salmonella spp	P	+1/2	+	+	+	+M	+	/	/	P	PA	+	P	PA			
2016	c	6475	Deli salad	SE	1,4	+M	+1/2	+M	+M	Salmonella spp	P	+m	+	+	+	+M	+	/	/	P	PA	+	P	PA			
2016	c	6476	Celery deli salad	SE	0,8	st	st	st	st	/	A	+1/2	+	+	+	+p	+	/	/	P	PD	+	P	PD			
2016	c	6478	Coleslaw	SE	0,8	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2016	c	6479	Deli salad	SE	0,8	-	-	-	st	/	A	-	/	/	/	-	/	/	/	A	NA						
2016	c	6480	Celery deli salad	SE	1,4	-	-	st	st	/	A	+M	+	+	+	+p	+	/	/	P	PD	+	P	PD			
2016	c	6699	Houmous	SE	4,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA			
2016	c	6700	Olive tapenade	SE	2,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA			
2016	c	6701	Fresh orange juice	SE	3,2	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+M	+	/	/	P	PA	+	P	PA			
2016	c	6702	Fresh juice	SE	4,2	st	st	st	st	/	A	st				st	/	/	/	A	NA						
2016	c	7099	Grated carrots	SE	6,4	+M	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA			
2016	c	7104	Grated carrots	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA						
2017	c	6012	Coleslaw	SE	0,8	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	c	6013	Frozen cooked potatoes	SE	1,0	+1/2	+1/2	+M	+M	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND			
2017	c	6025	Coleslaw	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	c	6026	RTE (beet salad)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA						
2017	c	6027	RTE (salad carrots celery)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA			
2017	c	6028	Frozen cooked potatoes	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	c	6029	Frozen cooked mixed vegetables	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	c	6030	Frozen cooked mixed vegetables	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA						
2017	c	7044	RTE (sliced carrots)	SE	1,8	+M	+M	+m	+m	Salmonella spp	P	-	/	/	/	+M	+	/	/	A (FN)	ND	+	P	PA			
2017	c	7045	RTE (carrots and celery)	SE	1,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA			
2017	c	7046	RTE (celery with custard)	SE	1,8	+p	+p	+p	+p	Salmonella spp	P	-	/	/	/	5RVS/5MKT TN/5MSRV	st	/	/	A	ND	5x(MSRV/RVS/MKTn):-	A	ND			
2017	c	7047	RTE (macedoine)	SE	1,4	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD			

Environmental samples

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method				Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C					
						RVS broth		MKTn broth		Serotype	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C						Final result	Agreement	All confirmatory tests		Final result	Agreement		
						XLD	ASAP	XLD	ASAP			Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact		Brilliance Salmonella	RVS / Brilliance Salmonella	Final result		Agreement	
2016	a	697	Dusts (pork industry)	SE	0,8	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	698	Dusts (pork industry)	SE	0,6	+M	+p	+1/2	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	699	Dusts (pork industry)	SE	1,4	-	+d	-	+d	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	700	Dusts (pork industry)	SE	0,8	+M	+M	+1/2	+1/2	Salmonella spp	P	+M	+	+	+	+M	+	/	/	P	PA	+	P	PA	
2016	a	920	Dusts (pork/beef industry)	/	/	+mni/+	+1/2	-	+dni/-	S. Rissen	P	-	/	/	/	+m	+	+	+	A (FN)	ND	+	P	PA	
2016	a	922	Dusts (pork/beef industry)	/	/	+d(NC)	-	+dni/-	+d ( <i>Serratia marcescens</i> )	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	a	923	Siphon water (pork/beef industry)	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	a	924	Wastes(pork/beef industry)	/	/	+dni/-	-	+dni/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	a	1127	Dust (dairy industry)	SE	1,8	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	a	1128	Dusts (fish industry)	SE	1,2	+d (NC)	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	a	1129	Dusts (fish industry)	SE	1,2	+p	+p	+1/2	+M	Salmonella spp	P	+d/+	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	1132	Raw pastry	SE	1,4	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	a	1536	Dusts (vegetables industry)	SE	2,4	+p	+p	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	1537	Dusts (vegetables industry)	SE	2,6	+p	+p	+1/2	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	1538	Dusts (fish industry)	SE	2,2	-	-	+dni/-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	a	1543	Dusts (sausages)	SE	2,0	+1/2	+1/2	+1/2	+1/2	Salmonella spp	P	+m/+	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	a	3749	Dusts	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	a	3750	Dusts	/	/	st	st	st	st	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	a	3751	Dusts	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	a	3752	Dusts	/	/	-	-	-	-	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	b	7727	Rinsed water (meat industry)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	b	695	Rinsed water (pork industry)	SE	0,6	-	-	-	+d (NC)	/	A	-	/	/	/	st	/	/	/	A	NA	-	A	NA	
2016	b	696	Rinsed water (pork industry)	SE	1,4	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	918	Rinsed water (pork/beef industry)	/	/	st	st	+m (C. youngae)	+m(ox+)	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	b	919	Rinsed water (meat industry)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	b	925	Process water (pork/beef industry)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/	
2016	b	1118	Process water (sausages/merguez)	SE	1,4	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1119	Process water (sausages)	SE	1,2	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1120	Process water (sausages/merguez)	SE	1,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1121	Process water (fish)	SE	1,4	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	-	A	NA	
2016	b	1122	Process water (biscuit/cheese)	SE	2,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1123	Process water (biscuit/cheese)	SE	0,8	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/	
2016	b	1124	Process water (ferments)	SE	1,8	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1125	Process water (ferments)	SE	2,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1539	Rinsed water (fish industry)	SE	2,2	+p	+M	+M	+M	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1540	Rinsed water (fish industry)	SE	0,6	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	b	1541	Process water (pastry)	SE	3,8	st	st	st	st	/	A	st	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	b	1542	Process water (pastry)	SE	1,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1547	Rinsed water (pork/beef industry)	SE	2,0	+M	+p	+M	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	b	1548	Rinsed water (pork/beef industry)	SE	2,0	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	P	PA	+	P	PA	
2016	c	7728	Wipe (meat industry)	/	/	+M	+M	+m	+1/2	S. Tiphymurium	P	+d	+ d	<i>Serratia marcescens</i>	<i>Serratia marcescens</i>	+M	+	/	/	A (FN)	PA ND (PP)	+	P	PA	
2016	c	7729	Wipe (meat industry)	/	/	+d/-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA	
2016	c	7730	Wipe (meat industry)	/	/	st	st	st	st	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/	

Environmental samples

Study	Type	#	Product	Injury protocol	Inoculation level /25 g	ISO 6579-1 method				Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C								
						RVS broth		MKTn broth		Serotype	Final result	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C						Final result	Agreement	All confirmatory tests		Final result		Agreement				
						XLD	ASAP	XLD	ASAP			Brilliance Salmonella			RVS / Brilliance Salmonella						Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests
2016	c	7732	Wipe (meat industry)	/	/	st	st	st	st	/	A	-	/	/	/	/	st	/	/	/	/	A	NA	/	/	/	/	
2016	c	7733	Wipe (meat industry)	/	/	st	st	-	st	/	A	-	/	/	/	/	st	/	/	/	/	A	NA	/	/	/	/	
2016	c	7734	Wipe (meat industry)	/	/	st	st	st	st	/	A	st	/	/	/	/	st	/	/	/	/	A	NA	/	/	/	/	
2016	c	7735	Wipe (meat industry)	/	/	-	-	-	-	/	A	-	/	/	/	/	-	/	/	/	/	A	NA	/	/	/	/	
2016	c	7736	Wipe (meat industry)	/	/	-	-	-	-	/	A	+d	+d	<i>Cedecea daviseae</i>	<i>Serratia marcescens</i>	-	/	/	/	/	A (FP)	NA (PP)	-	A	NA			
2016	c	7737	Wipe after cleaning (meat industry)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	/	A	NA	/	/	/	/		
2016	c	7739	Wipe (meat industry)	/	/	-	-	-	-	/	A	+d	+d	<i>Serratia marcescens</i>	<i>Serratia marcescens</i>	-	/	/	/	/	A (FP)	NA (PP)	-	A	NA			
2016	c	7740	Wipe (meat industry)	/	/	-	-	-	-	/	A	+d	-	<i>Serratia marcescens</i>	<i>Serratia marcescens</i>	-	/	/	/	/	A (FP)	NA (PP)	-	A	NA			
2016	c	7741	Wipe (meat industry)	/	/	-	-	-	-	/	A	+d	+d	<i>Serratia marcescens</i>	<i>Serratia marcescens</i>	-	/	/	/	/	A (FP)	NA (PP)	-	A	NA			
2016	c	690	Wipe (pastry)	SE	1,4	st	st	st	st	/	A	st	/	/	/	st	/	/	/	/	A	NA						
2016	c	691	Wipe (pastry)	SE	1,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	c	692	Wipe (pastry)	SE	2,0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	c	693	Wipe (pastry)	SE	1,4	+p	+p	+p	+p	Salmonella spp	P	+M	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	c	694	Wipe (pastry)	SE	1,2	st	st	st	st	/	A	-	/	/	/	st	/	/	/	/	A	NA	-	A	NA			
2016	c	910	Wipe (pork/beef industry)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/			
2016	c	911	Wipe (pork/beef industry)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	/	A	NA	/	/	/			
2016	c	912	Wipe (pork/beef industry)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/			
2016	c	913	Wipe (pork/beef industry)	/	/	+1/2	+1/2	+1/2	+1/2	(S. :4,5:i:-)	P	+m	+	+	+	+1/2	+	/	/	/	P	PA	+	P	PA			
2016	c	914	Wipe (pork/beef industry)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	/	A	NA	/	/	/			
2016	c	915	Wipe (pork/beef industry)	/	/	-	st	-	st	/	A	st	/	/	/	st	/	/	/	/	A	NA	/	/	/			
2016	c	916	Wipe (pork/beef industry)	/	/	+m	+m/+	+m	+m	Salmonella spp	P	+m/+	+	+	+	+m	+	/	/	/	P	PA	+	P	PA			
2016	c	917	Wipe(pork/beef industry)	/	/	+1/2	+m	+1/2	+m	Salmonella spp	P	+m/+	+	+	+	+m	+	/	/	/	P	PA	+	P	PA			
2016	c	1137	Wipe (fish industry)	SE	1,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	c	1544	Dusts (sausages)	SE	2,0	st	st	st	st	/	A	-	/	/	/	-	/	/	/	/	A	NA	-	A	NA			
2016	c	1545	Wipe (pastry)	SE	3,8	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			
2016	c	1546	Wipe (pastry)	SE	2,6	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	/	P	PA	+	P	PA			

Specific ingredients

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method				Alternative method : Salmonella Precis												Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confir-mation ISO 6579-1	Confirmation ISO 16140-2		Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agree-ment	Brilliance	Latex	Result	Agreement
						XLD	ASAP	XLD	ASAP			P	PA	P	PA	P	PA	P	PA	P	PA	P	PA	P	PA	P	PA	
2020	a+	1845136	Unpasteurized powdered egg white	SP	4,0	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(DM)	+	+	+(BM)/+(BM)	P	P	PA	+ (DM)	+	P	PA	+ (DM)	+	P	PA		
2020	a+	1845137	Pasteurized powdered egg yolk	SP	4,0	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845138	Pasteurized whole egg powder	SP	4,0	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845139	30% sweet liquid egg yolk	SP	4,0	+(AM)	+(AM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845140	11% salted liquid egg yolk	SP	4,0	+(AM)	+(AM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845141	08% salted liquid egg yolk	SP	4,6	+(AM)	+(AM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845142	9,3% salted liquid egg yolk	SP	4,6	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845143	9% liquid whole egg salted and 10.9% sweet	SP	4,6	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845144	Liquid whole egg	SP	4,6	+(AM)	+(AM)	DM	DM	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a+	1845145	Pasteurized powdered egg yolk	SP	4,6	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	a-	1845147	Pasteurized powdered egg white	/	/	-(ØE)	-(ØE)	-(EM)	-(EM)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845148	Unpasteurized powdered egg white	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	-	-(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA		
2020	a-	1845149	Pasteurized powdered egg yolk	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845150	Pasteurized whole egg powder	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845152	30% sweet liquid egg yolk	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845153	11% salted liquid egg yolk	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845153	08% salted liquid egg yolk	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845154	9,3% salted liquid egg yolk	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845155	9% liquid whole egg salted and 10.9% sweet	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	a-	1845156	Liquid whole egg	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	-	-(ØE)/-(ØE)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA		
2020	b+	1845157	Whole milk powder	SP	5,0	+(BM)	+(AM)	+(BM)	+(AM)	Salmonella spp	P	-(EM)	/	-	-(ØE)/-(ØE)	A	A	ND	-(EM)	/	A	ND	-(EM)	/	A	ND		
2020	b+	1845158	Organic skim milk powder	SP	5,0	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	+(BM)	+	+	+(AM)/+(AM)	P	P	PD	+(BM)	+	P	PD	+(BM)	+	P	PD		
2020	b+	1845159	Semi-skimmed milk powder	SP	5,0	+(BM)	+(AM)	+(BM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA		
2020	b+	1845160	Baby milk powder 0-6 months without probiotics	SP	5,0	+(BM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	b+	1845161	Baby milk powder 10-36 months without probiotics	SP	5,0	+(BM)	+(AM)	BM	+(AM)	Salmonella spp	P	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	ND	-(ØE)	/	A	ND	-(ØE)	/	A	ND		
2020	b+	1845162	Baby powder 1-3 years without probiotics	SP	5,0	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	+(AM)	+	+	+(AM)/+(AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD		
2020	b+	1845163	Baby growth milk powder 3 with goat milk without probiotics	SP	4,0	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	+(AM)	+	+	+(AM)/+(AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD		
2020	b+	1845164	Baby milk powder 6-12 months without probiotics LOT 1	SP	4,0	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	b+	1845165	Baby milk powder 6-12 months without probiotics LOT 2	SP	4,0	+(AM)	+(AM)	+(AM)	+(AM)	Salm spp	P	+(AM)	+	+	+(AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA		
2020	b+	1845166	Baby powder milk growth 1- 3 years without probiotics	SP	4,0	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	+(AM)	+	+	+(AM)/+(AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD		
2020	b-	1845169	Whole milk powder	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	-	-(ØE)/-(ØE)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA		
2020	b-	1845170	Organic skim milk powder	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	-	-(ØE)/-(ØE)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA		
2020	b-	1845171	Semi-skimmed milk powder	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	b-	1845172	Baby milk powder 0-6 months without probiotics	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		
2020	b-	1845173	Baby milk powder 10-36 months without probiotics	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	-	-(ØE)/-(ØE)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA		
2020	b-	1845174	Baby powder 1-3 years without probiotics	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA		

Specific ingredients

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579-1 method				Alternative method : Salmonella Precis										Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confir-mation ISO 6579-1	Confirmation ISO 16140-2		Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agree-ment		
						XLD	ASAP	XLD	ASAP						RVS (XLD/R Salm)	Result	Result	Agreement								
2020	b-	1845175	Baby growth milk powder 3 with goat milk without probiotics	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	b-	1845176	Baby milk powder 6-12 months without probiotics LOT 1	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	b-	1845177	Baby milk powder 6-12 months without probiotics LOT 2	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	b-	1845178	Baby powder milk growth 1- 3 years without probiotics	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c+	1845210	Violet syrup	SP	4,6	+ (AM)	- (ØE)	+ (AM)	+ (AL)	Salmonella spp	P	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	ND	- (ØE)	/	A	ND	- (ØE)	/	A	ND
2020	c+	1845211	Organic agave syrup	SP	4,6	+ (AM)	- (ØE)	+ (AM)	+ (AL)	Salmonella spp	P	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	ND	- (ØE)	/	A	ND	- (ØE)	/	A	ND
2020	c+	1845212	Agave syrup	SP	4,6	+ (AM)	- (ØE)	+ (AM)	+ (AL)	Salmonella spp	P	+ (AM)	+	+	+ (AM)/+ (AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA
2020	c+	1845213	Sucrose	SP	4,6	+ (AM)	- (EM)	+ (AM)	- (EM)	Salmonella spp	P	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	ND	- (ØE)	/	A	ND	- (ØE)	/	A	ND
2020	c+	1845214	Liquid sweetener	SP	4,6	+ (AM)	+ (AM)	+ (AM)	+ (AM)	Salmonella spp	P	+ (AM)	+	+	+ (AM)/+ (AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA
2020	c+	1845215	Powder sweetener	SP	4,6	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	+ (AM)	+	+	+ (AM)/+ (AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD
2020	c+	1845216	Liquid honey	SP	4,6	+ (AM)	+ (AM)	+ (AM)	+ (AM)	Salmonella spp	P	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	ND	- (ØE)	/	A	ND	- (ØE)	/	A	ND
2020	c+	1845217	Honey	SP	4,6	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	+ (AM)	+	+	+ (AM)/+ (AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD
2020	c+	1845218	Sugarpaste	SP	4,6	+ (AM)	+ (AM)	+ (AM)	+ (AM)	Salmonella spp	P	+ (AM)	+	+	+ (AM)/+ (AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA
2020	c-	1845209	Licorice and mint concentrate	SP	4,6	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845219	Licorice and mint concentrate	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845220	Violet syrup	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845221	Organic agave syrup	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845222	Agave syrup	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845223	Sucrose	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1845224	Liquid sweetener	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1854695	Powder sweetener	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1854696	Liquid honey	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1854697	Honey	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA
2020	c-	1854698	Sugarpaste	/	/	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	A	- (ØE)	/	-	- (ØE)/- (ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA

## Animal feed

Study	Type	#	Product	Injury protocol	Inoculation level /25g	ISO 6579-1 method				Alternative method : Salmonella Precis										Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confir-mation ISO 6579-1	Confirmation ISO 16140-2		Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agree-ment		
						XLD	ASAP	XLD	ASAP						RVS (XLD/R Salm)	Result	(EM)/-(EM)	(EM)/-(EM)	(EM)/-(EM)	(EM)/-(EM)						
2020	a-	1854699	Junior cat kibble	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854700	Adult cat kibble	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854701	Macaroni for dogs	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854702	Dog food - 25 kg	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854703	Meat in sauce for dog sauce	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854704	Slow Cooked in Cat Sauce	SP	4,2	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854705	Hamster food	SP	4,2	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA
2020	a-	1854708	Food for dwarf rabbits	SP	4,2	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	- (EM)/-(EM)	A	A	NA	-(EM)	-	A	NA	-(EM)	-	A	NA	
2020	a-	1854763	Cat food	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA	
2020	a-	1854764	Beef dog food	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA	
2020	a-	1854765	Dog kibble	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	-(ØE)/-(ØE)	A	A	NA	-(ØE)	/	A	NA	-(ØE)	/	A	NA	
2020	a+	1854751	Cat kibble without cereals	SP	1,4	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA	
2020	a+	1854752	Dog food with veal and carrots	SP	1,4	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(BH)	+	+	-(DM/BM)	P	P	PA	+(BM)	+	P	PA	+(BM)	+	P	PA
2020	a+	1854753	Cat kibble	SP	2,6	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854754	Terrine in sauce for cats - salmon / carrots	SP	2,6	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854755	Cat terrine without cereals	SP	3,2	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AM)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854756	Kibble for little dog	SP	3,2	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854757	Kibble for big dog	SP	2,8	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854758	Beef terrine for cat	SP	2,8	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854759	Lamb terrine for cat	SP	3,8	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854760	Poultry and carrot terrine for dog	SP	3,8	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(BH)	+	+	+(BM/BM)	P	P	PA	+(BM)	+	P	PA	+(BM)	+	P	PA
2020	a+	1854761	Chicken and vegetables terrine for dog	SP	3,6	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(BM/BM)	P	P	PA	+(BM)	+	P	PA	+(BM)	+	P	PA
2020	a+	1854762	Terrine in sauce for cats - poultry / green bean	SP	3,6	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(AH)	+	+	+(AM/AM)	P	P	PA	+(AM)	+	P	PA	+(AM)	+	P	PA
2020	a+	1854766	Food for guinea pigs	SP	4,2	+(BM)	+(BM)	-(EM)	-(EM)	Salmonella spp	P	-(EM)	-	- (Citrobacter freundii)	-(EM)/-(EM)	A	A	ND	-(EM)	-	A	ND	-(EM)	-	A	ND
2020	a+	1854707	Bird food	SP	4,2	+(BM)	+(BM)	+(DM)	+(DM)	Salmonella spp	P	+(CM)	+	+	+(BM)/+(BM)	P	P	PA	+(CM)	+	P	PA	+(CM)	+	P	PA
2020	b-	1778879	Poultry feed	SP	3,2	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	+/(BM)/+(BM)	P	A (FN)	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854717	Oats	SP	1,0	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854718	Rapeseed meal	SP	1,0	-(EM)	-(EM)	-(EH)	-(EM)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854719	Rabbit food	SP	1,0	-(EM)	-(EM)	-(EL)	-(EL)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854720	Corn and rapeseed flour	SP	1,0	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EL)	/	-/(ØE)/-(ØE)	A	A	NA	-(EL)	/	A	NA	-(ØE)	/	A	NA	
2020	b-	1854782	Horse food	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854783	Fish feed	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854784	Barley granulet	/	/	-(ØE)	-(EL)	-(EM)	-(EM)	/	A	-(EM)	/	-/(EM)/-(EM)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854785	Corn flour	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	-/(ØE)/-(ØE)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	
2020	b-	1854786	Pig food	/	/	-(EL)	-(EL)	-(EM)	-(EM)	/	A	-(EM)	/	-/(EL)/-(EL)	A	A	NA	-(EM)	/	A	NA	-(EM)	/	A	NA	

Animal feed

Study	Type	#	Product	Injury protocol	Inoculation level /25g	ISO 6579-1 method				Alternative method : Salmonella Precis										Storage 72h - 5±3°C							
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confir-mation ISO 6579-1	Confirmation ISO 16140-2		Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agree-ment			
						XLD	ASAP	XLD	ASAP			P	PA	+ (DM)	- (EM)	A	ND	P	PD	+ (BM)	P	PA	+ (CM)	P	PA		
2020	b+	1778878	Horse food	SP	3,2	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(DM)	+	+	+ (BM)/+(BM)	P	P	PA	+ (DM)	+	P	PA	+ (DM)	+	P	PA	
2020	b+	1778881	Pig food	SP	3,2	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	-(EM)	/	-	- (EM)/-(EM)	A	A	ND	- (EM)	/	A	ND	- (EM)	/	A	ND	
2020	b+	1778882	Fish food	SP	3,2	-(EM)	-(ØE)	-(EM)	-(EM)	/	A	+(BM)	+	+	+ (BM)/+(BM)	P	P	PD	+ (BM)	+	P	PD	+ (BM)	+	P	PD	
2020	b+	1854715	Corn flour	SP	1,0	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(DM)	+	+	- (EL)/-(EL) Bis: -(EL/-EL)	A	P	PA	+ (DM)	+	P	PA	+ (CM)	+	P	PA	
2020	b+	1854716	Barley granulet	SP	1,0	-(EL)	-(EL)	-(EM)	-(EM)	/	A	+(BM)	+	+	+ (BM)/+(BM)	P	P	PD	+ (BM)	+	P	PD	+ (BM)	+	P	PD	
2020	b+	1854777	Poultry feed	SP	3,0	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(CM)	+	+	+ (BM)/+(BM)	P	P	PA	+ (CM)	+	P	PA	+ (CM)	+	P	PA	
2020	b+	1854778	Oats	SP	3,0	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(CM)	+	+	+ (BM)/+(BM)	P	P	PA	+ (CM)	+	P	PA	+ (CM)	+	P	PA	
2020	b+	1854779	Soybean meal	SP	3,0	+(BM)	+(BM)	+(BH)	+(BH)	Salmonella spp	P	-(EM)	/	-	- (EM)/-(EM)	A	A	ND	- (EM)	/	A	ND	- (EM)	/	A	ND	
2020	b+	1854780	Sheep feed	SP	3,0	-(EM)	-(EM)	-(EM)	-(EM)	/	A	+(AM)	+	+	+ (BM)/+(AM)	P	P	PD	+ (AM)	+	P	PD	+ (AM)	+	P	PD	
2020	b+	1854781	Lamb feed	SP	3,0	+(BM)	+(BM)	+(CM)	+(CM)	Salmonella spp	P	-(EM)	/	-	- (EM)/-(EM)	A	A	ND	- (EM)	/	A	ND	- (EM)	/	A	ND	
2020	c-	1778885	Whole wheat	SP	4,4	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	-	-	- (Citrobacter koseri)	- (EM)/-(EM)	A	A	NA	- (EM)	-	A	NA	- (EM)	-	A	NA
2020	c-	1854766	Buffalo flour	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	/	- (ØE)/-(ØE)	A	A	NA	- (EM)	/	A	NA	- (EM)	/	A	NA	
2020	c-	1854767	Organic poultry meal	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	/	- (ØE)/-(ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA	
2020	c-	1854768	Shrimp flour	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	/	- (ØE)/-(ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA	
2020	c-	1854769	Fishmeal	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	/	- (ØE)/-(ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA	
2020	c-	1854770	Chicken flour	/	/	-(ØE)	-(ØE)	-(EL)	-(ØE)	/	A	-(EL)	/	/	- (EL)/-(EL)	A	A	NA	- (EL)	/	A	NA	- (EL)	/	A	NA	
2020	c-	1854771	Pea flour	/	/	-(EL)	-(EL)	-(EL)	-(EL)	/	A	-(EM)	/	/	- (EL)/-(EL)	A	A	NA	- (EM)	/	A	NA	- (EM)	/	A	NA	
2020	c-	1854772	Soy protein	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	/	- (ØE)/-(ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA	
2020	c-	1854773	Milling bran	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	/	- (EM)/-(EM)	A	A	NA	- (EM)	/	A	NA	- (EM)	/	A	NA	
2020	c-	1854774	Beet powder	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(EM)	/	/	- (EM)/-(EM)	A	A	NA	- (EM)	/	A	NA	- (EM)	/	A	NA	
2020	c-	1854775	Bean and flax flour	/	/	-(ØE)	-(ØE)	-(ØE)	-(ØE)	/	A	-(ØE)	/	/	- (ØE)/-(ØE)	A	A	NA	- (ØE)	/	A	NA	- (ØE)	/	A	NA	
2020	c-	1854776	Pea protein	/	/	-(EM)	-(EM)	-(EM)	-(EM)	/	A	-(EM)	/	/	- (EM)/-(EM)	A	A	NA	- (EM)	/	A	NA	- (EM)	/	A	NA	
2020	c+	1778884	Soy protein	SP	4,4	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA	
2020	c+	1778886	Pea flour	SP	4,4	-(EM)	-(EM)	+(CM)	+(CM)	Salmonella spp	P	-(EM)	/	-	- (EM)/-(EM)	A	A	ND	- (EM)	/	A	ND	- (EM)	/	A	ND	
2020	c+	1854709	Insect meal	SP	3,8	-(EM)	-(EM)	-(EM)	-(EM)	/	A	+(DM)	+	+	+ (BM)/+(BM)	P	P	PD	+ (DM)	+	P	PD	+ (CM)	+	P	PD	
2020	c+	1854710	Chicken flour	SP	3,8	+(AM)	+(AM)	+(CM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AM)	+	P	PA	
2020	c+	1854711	Buffalo flour	SP	3,8	+(BM)	+(BM)	+(BM)	+(BM)	Salmonella spp	P	+(CM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (CM)	+	P	PA	+ (BM)	+	P	PA	
2020	c+	1854712	Organic poultry meal	SP	3,8	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AH)	+	P	PA	
2020	c+	1854713	Shrimp flour	SP	4,6	+(AM)	+(AM)	+(AM)	+(AM)	Salmonella spp	P	+(AM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AH)	+	P	PA	
2020	c+	1854714	Fishmeal	SP	4,6	+(BM)	+(AM)	+(BM)	+(BH)	Salmonella spp	P	+(AM)	+	+	+ (AM)/+(AM)	P	P	PA	+ (AM)	+	P	PA	+ (AH)	+	P	PA	

Study	Type	#	Product	Injury protocol	Inoculation level / 25g	ISO 6579-1 method				Final result	Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C							
						RVS broth		MKTn broth				BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests						RVS / Brilliance Salmonella						
						XLD	ASAP	XLD	ASAP		Brilliance Salmonella		RVS / Brilliance Salmonella		Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests	All confirmatory tests		Final result	Agreement		
2019	a	99	Infant cereals (vanilla flavor)	SE	1,4	+p	+M	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	100	Infant cereals (brioche flavor)	SE	1,4	+p	+p	+M	+M	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	296	Half skimmed milk powder	SE	0,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	297	Skimmed milk powder	SE	0,4	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PD	+	P	PD
2019	a	298	Skimmed milk powder	SE	0,4	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	305	Infant cereals (honey flavor)	SE	1,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	306	Infant cereals (cocoa flavor)	SE	0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	340	Infant formula without probiotics	SE	0,3	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	341	Infant formula without probiotics	SE	0,3	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	342	Infant formula without probiotics	SE	0,3	+p	+p	+p	+p	Salmonella spp	P	+p(2col)	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	958	Skimmed milk powder	SP	0,4	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	+p	+	/	/	+p	+	/	/	A (FN)	ND	+	P	PA
2019	a	959	Skimmed milk powder	SP	1,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	a	1126	Infant formula without probiotics	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1127	Infant formula without probiotics	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1128	Infant cereals without probiotics	/	/	st	st	st	st	/	A	-	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1129	Infant cereals without probiotics (brioche flavor)	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1130	Infant cereals without probiotics (biscuit flavor)	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	-	/	/	/	A	NA	/	/	/
2019	a	1131	Infant formula without probiotics	/	/	st	st	st	st	/	A	-	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1132	Infant formula without probiotics	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	a	1133	Infant formula without probiotics	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	b	96	Infant formula with probiotics 1,6 103 cfu/g	SE	3,1	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	-	A	NA
2019	b	97	Infant formula with probiotics 2,7 106 cfu/g	SE	3,1	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	b	98	Infant formula with probiotics 7,2 106 cfu/g	SE	3,1	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PD	+	P	PD
2019	b	307	Infant cereals with probiotics (cocoa flavor) 6,2 10 <sup>6</sup> cfu/g	SE	0	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	b	308	Infant cereals with probiotics (honey flavor) 5,3 10 <sup>6</sup> cfu/g	SE	1,2	st	st	st	st	/	A	-	/	/	/	-	/	/	/	-	/	/	/	A	NA	/	/	/
2019	b	309	Infant cereals with probiotics (5 cereals flavor) 1,8 10 <sup>6</sup> cfu/g	SE	1,2	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PD	+	P	PD
2019	b	960	Infant formula with probiotics 1,9 10 <sup>6</sup> cfu/g	SP	0,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	b	961	Infant formula with probiotics 9,7 10 <sup>5</sup> cfu/g	SP	1,2	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	b	962	Infant formula with probiotics 2,4 10 <sup>5</sup> cfu/g	SP	0,2	-	-	st	st	/	A	-	/	/	/	-	/	/	/	-	/	/	/	A	NA	/	/	/
2019	b	963	Infant cereals with probiotics (5 cereals) 3,3 10 <sup>5</sup> cfu/g	SP	1,6	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	-	/	/	/	-	/	/	/	A	ND	+	A	ND
2019	b	964	Infant cereals with probiotics (honey flavor) 7,0 10 <sup>5</sup> cfu/g	SP	1,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA
2019	b	965	Infant cereals with probiotics (biscuit flavor) 4,9 104 cfu/g	SP	1,4	-	-	-	-	/	A	+p	+	+	+	+p	+	/	/	+p	+	/	/	P	PD	+	P	PD
2019	b	1123	Infant formula with probiotics 8,0 10 <sup>5</sup> cfu/g	/	/	-	-	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	b	1124	Infant formula with probiotics 3,0 10 <sup>5</sup> cfu/g	/	/	-	-	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	b	1125	Infant formula with probiotics 7,0 10 <sup>5</sup> cfu/g	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	st	/	/	/	A	NA	/	/	/
2019	b	1237	Infant formula with probiotics cfu/g	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	/	+p	+	/	/	+p	+	/	/	P	PA	+	P	PA

Study	Type	#	Product	Injury protocol	Inoculation level / 25g	ISO 6579-1 method				Final result	Alternative method : Salmonella Precis								Final result	Agreement	Storage 72h - 5±3°C					
						RVS broth		MKTn broth			Serotype	BPW + 12mg/L novobiocin - 20h at 37°C +/- 1°C				Confirmatory tests				Final result	Agreement	All confirmatory tests		Final result	Agreement	
						XLD	ASAP	XLD	ASAP		Brilliance Salmonella		RVS / Brilliance Salmonella		Typical colonies	Latex	Microbact	Reference method tests	Typical colonies	Latex	Microbact	Reference method tests	All confirmatory tests	Final result	Agreement	
2019	b	1238	Infant formula with probiotics cfu/g	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	/	+p	+	/	/	P	PA	+	P	PA		
2019	b	1239	Infant formula with probiotics cfu/g	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	+p	+	+	/	+p	+	/	/	P	PA	+	P	PA		
2019	b	1240	Infant formula with probiotics 1,3 10 <sup>6</sup> cfu/g	SP	3,4	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	+p	+	+		A (FN)	ND	(+ after subculture)	A (FN)	ND		
2019	b	1260	Infant cereals with probiotics (caramel flavor) 5,6 10 <sup>5</sup> cfu/g	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	b	1261	Infant cereals with probiotics (chocolate biscuity flavor) 1,6 104 cfu/g	/	/	-	-	-	-	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	b	1262	Infant cereals with probiotics (hazelnut biscuit flavor) 2, 10 <sup>5</sup> cfu/g	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	c	299	Whey powder	SE	0,4	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	c	300	Whey powder	SE	0,4	+p	+p	+p	+p	Salmonella spp	P	st	/	/	/	st	/	/	/	A	ND	-	A	ND		
2019	c	301	Caseinates	SE	0,4	st	st	st	st	/	A	+p	+	+	+	+p	+	/	/	P	PD	+	P	PD		
2019	c	302	Starch	SE	0,4	-	-	-	-		A	-	/	/	/	-	/	/	/	A	NA	/	/	/		
2019	c	303	Maltodextrin	SE	1,8	+p	+p	+p	+p	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND		
2019	c	304	Starch	SE	1,8	st	st	st	st	/	A	-	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	c	566	Rye flour	SE	1,2	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA		
2019	c	567	Barley flour	SE	0,4	-	-	-	-	/	A	+m	+	+	/	+M	+	/	/	P	PD	+	P	PD		
2019	c	568	Corn flour	SE	0,5	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA		
2019	c	569	Wheat flour	SE	0,3	+M	+1/2	+1/2	+1/2	Salmonella spp	P	+md/+	+	+	/	+1/2	+	/	/	P	PA	+	P	PA		
2019	c	570	Wheat flour	SE	1,2	+1/2	+1/2	+m	+1/2	Salmonella spp	P	-	/	/	/	-	/	/	/	A	ND	-	A	ND		
2019	c	571	Wheat flour	SE	0,4	+1/2	+1/2	+1/2	+1/2	Salmonella spp	P	+md/+	+	+	/	+1/2	+	/	/	P	PA	+	P	PA		
2019	c	1243	Corn flour	SP	1,6	+M	+1/2	+M	+m	Salmonella spp	P	+md/+	+	+	/	+1/2	+	/	/	P	PA	+ (after subculture)	P	PA		
2019	c	1244	Barley flour	SP	1,6	+M	+1/2	+M	+M	Salmonella spp	P	+md/+	+	+	/	+M	+	/	/	P	PA	+ (after subculture)	P	PA		
2019	c	1264	Semi-complete rye flour	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	5RVS,5Mktt,5MSRV:-	A	NA	-	A	NA		
2019	c	1265	Whole wheat flour	/	/	-	-	+md (C. youngae)	-	/	A	-	/	/	/	-	/	/	/	A	NA	-	A	NA		
2019	c	1266	Country wheat flour	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/		
2019	c	1267	Wheat flour	/	/	-	-	-	-	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/		
2019	c	1268	Lactoserum	/	/	st	st	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	c	1269	Caseinates	/	/	-	-	st	st	/	A	st	/	/	/	st	/	/	/	A	NA	/	/	/		
2019	c	1271	Lactoserum	/	/	st	st	st	st	/	A	-	/	/	/	-	/	/	/	A	NA	/	/	/		

Cocoa & chocolate - paired

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579 method						Alternative method : Salmonella Precis										Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confirmation ISO 6579-1	Confirmation ISO 16140-2		RVS (XLD/R Salm)	Result	Result	Agreement	Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agree-ment
						XLD	BSA	XLD	BSA						t/t	p	p	p	t/t	t	t	t	t	t	t	t	t	t
2020	a-	364,1	Cocoa Powder	SE	0,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,2	Cocoa Powder	SE	1,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,3	Cocoa Powder	SE	1,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,4	Cocoa Powder	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,5	Cocoa Powder	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,6	Cocoa Powder	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,7	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,8	White Chocolate Chocolate Chip Muffin Mix	SE	1,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,9	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,10	Chocolate Pudding Mix	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,11	Baking Cocoa	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,12	Dutch Hot Cocoa Mix-Milk Chocolate	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,13	Milk Chocolate Hot Cocoa Mix	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,14	Milk Chocolate Hot Cocoa Mix	SE	1,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,15	Chocolate Drink Powder	SE	1,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,16	Cocoa Powder	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,17	Chocolate Drink Powder	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,18	Cocoa Powder	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,19	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,20	Organic Unsweetened Dutched Cocoa Powder	nc	/	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,21	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,22	Hot Chocolate Mix	SE	3,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,23	Baking Cocoa Powder	SE	2,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,24	Cocoa Powder	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,25	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,26	Organic Cocoa Powder	SE	1,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,69	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,27	70% Cocoa Dark Chocolate	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,28	78% Cocoa Dark Chocolate	SE	3,0	t	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,29	85% Cocoa Dark Chocolate	SE	1,8	ng	ng	at	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,30	90% Cocoa Dark Chocolate	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,31	95% Cocoa Dark Chocolate	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,32	Chocolate Syrup	SE	2,0	m	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,33	Milk Chocolate Baking Chips	SE	2,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,34	White Chocolate Chips	SE	2,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,35	Milk Chocolate	SE	2,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,36	Dark Chocolate	SE	3,4	at	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,37	Milk Chocolate	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,38	Milk Chocolate	SE	0,8	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,39	Dark Chocolate	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,40	Dark Chocolate Almond	SE	2,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,41	Dark Chocolate & Mint Swirl	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,42	Dark Chocolate & Sea Salt Caramel	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,43	Milk Chocolate & Caramel	SE	2,2	ng	ng	at	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,44	Dark Chocolate	SE	3,4	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,45	80% Cacao	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	p	P	PA	t	+	P	PA	t	+	P	PA		

Cocoa & chocolate - paired

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579 method					Alternative method : Salmonella Precis										Storage 72h - 5±3°C										
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confir-mation latex	Confirmation ISO 6579-1	Confirmation ISO 16140-2		RVS (XLD/R Salm)	Result	Result	Agreement	Brilliance at 72h - 4°C			Brilliance	Latex	Result	Agree-ment	Brilliance	Latex	Result	Agreement
						XLD	BSA	XLD	BSA						t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	b+	364,46	Chocolate Pudding	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	b+	364,67	Dark Chcolate	SE	1,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	b+	364,68	Dark Chocolate	SE	2,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	b-	364,70	Dark Chocolate	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	b-	364,71	Dark Chocolate	SE	2,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	b-	364,72	Dark Chocolate	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	b-	364,73	Dark Chocolate	SE	3,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	b-	364,74	Dark Chocolate	SE	1,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,47	Raw Organic Cacao Paste/Liquor	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,48	Cacao Butter	SE	1,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,49	Cacao Paste	SE	2,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,5	Raw Cocoa Butter 100%	nc	/	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,51	Chocolate Liquor Chunks	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,52	Cocoa Butter Refined	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,53	Organic Cacao Paste	SE	3,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,54	Organic Cocoa Butter Wafers	SE	2,8	m	m	t	t	Salmonella spp.	P	t	+	Salmonella spp.	m/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,55	Organic Raw Cacao Beans	SE	2,6	at	ng	at	ng	/	A	ng	/	/	at/ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,56	Unrefined Cocoa Butter	SE	3,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,57	Cocoa Beans	SE	2,2	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,58	Cocoa Butter Refined	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,59	Cocoa Beans	SE	3,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,6	Organic Cocoa Butter Wafers	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,61	Organic Cocoa Beans	nc	/	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,62	Cocoa beans	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,63	Raw Cacao Beans	SE	3,0	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c+	364,64	Cocoa Butter	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,65	Organic Raw Cacao Beans	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c+	364,66	Cocoa Butter	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA	t	+	P	PA	
2020	c-	364,75	Cocoa Butter	SE	0,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,76	Cocoa Butter	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,77	Cocoa Butter	SE	2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,78	Cocoa Butter	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,79	Cocoa Butter	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,8	Cocoa Butter	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	
2020	c-	364,81	Cocoa Butter	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA	/	/	A	NA	

**Cocoa & chocolate - unpaired**

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579 method						Alternative method : Salmonella Precis										Storage 72h - 5±3°C						
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confirmation latex	Confirmation ISO 6579-1	Confirmation ISO 16140-2		RVS (XLD/R Salm)	Result	Result	Agreement	Brilliance at 72h - 4°C				Brilliance	Latex	Result	Agreement
						XLD	BSA	XLD	BSA						RVS (XLD/R Salm)	Result				Brilliance	Latex	Result	Agreement					
2020	a-	364,1	Cocoa Powder	SE	0,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,2	Cocoa Powder	SE	1,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,3	Cocoa Powder	SE	1,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,4	Cocoa Powder	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,5	Cocoa Powder	SE	2,2	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t/t	P	P	PD	t	+	P	PD	t	+	P	PD		
2020	a+	364,6	Cocoa Powder	SE	2,8	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t/t	P	P	PD	t	+	P	PD	t	+	P	PD		
2020	a+	364,7	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	ng	/	/	ng / ng	A	A	ND	ng	/	A	ND	ng	/	A	ND		
2020	a+	364,8	White Chocolate Chocolate Chip Muffin Mix	SE	1,0	t	t	t	t	Salmonella spp.	P	ng	/	/	ng / ng	A	A	ND	ng	/	A	ND	ng	/	A	ND		
2020	a-	364,9	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,10	Chocolate Pudding Mix	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,11	Baking Cocoa	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,12	Dutch Hot Cocoa Mix-Milk Chocolate	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,13	Milk Chocolate Hot Cocoa Mix	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,14	Milk Chocolate Hot Cocoa Mix	SE	1,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,15	Chocolate Drink Powder	SE	1,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,16	Cocoa Powder	SE	3,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,17	Chocolate Drink Powder	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,18	Cocoa Powder	SE	2,8	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t/t	P	P	PD	t	+	P	PD	t	+	P	PD		
2020	a+	364,19	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,20	Organic Unsweetened Dutched Cocoa Powder	nc	/	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,21	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,22	Hot Chocolate Mix	SE	3,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a+	364,23	Baking Cocoa Powder	SE	2,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,24	Cocoa Powder	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a+	364,25	Cocoa Powder	SE	0,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	a-	364,26	Organic Cocoa Powder	SE	1,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	a-	364,69	Cocoa Powder	SE	1,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,27	70% Cocoa Dark Chocolate	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,28	78% Cocoa Dark Chocolate	SE	3,0	t	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,29	85% Cocoa Dark Chocolate	SE	1,8	ng	ng	at	ng	/	A	t	+	Salmonella spp.	t/t	P	P	PD	t	+	P	PD	t	+	P	PD		
2020	b+	364,30	90% Cocoa Dark Chocolate	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,31	95% Cocoa Dark Chocolate	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,32	Chocolate Syrup	SE	2,0	m	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,33	Milk Chocolate Baking Chips	SE	2,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,34	White Chocolate Chips	SE	2,6	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t/t	P	P	PD	t	+	P	PD	t	+	P	PD		
2020	b+	364,35	Milk Chocolate	SE	2,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,36	Dark Chocolate	SE	3,4	at	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,37	Milk Chocolate	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,38	Milk Chocolate	SE	0,8	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,39	Dark Chocolate	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,40	Dark Chocolate Almond	SE	2,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,41	Dark Chocolate & Mint Swirl	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,42	Dark Chocolate & Sea Salt Caramel	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b-	364,43	Milk Chocolate & Caramel	SE	2,2	ng	ng	at	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA		
2020	b+	364,44	Dark Chocolate	SE	3,4	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		
2020	b+	364,45	80% Cacao	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t/t	P	P	PA	t	+	P	PA	t	+	P	PA		

**Cocoa & chocolate - unpaired**

Study	Type	#	Product	Injury protocol	Inoculation level / 25 g	ISO 6579 method				Alternative method : Salmonella Precis																				
						RVS broth		MKTn broth		Confirmation	Final result	Brilliance	Confirmation latex	Confirmation ISO 6579-1	Confirmation ISO 16140-2		RVS (XLD/R Salm)	Result	Pre-warmed UHT milk - 20h at 37°C +/- 1°C				Brilliance at 72h - 4°C				Storage 72h - 5±3°C			
						XLD	BSA	XLD	BSA			Brilliance	Latex	Result	Agreement	Brilliance			Latex	Result	Agreement	Brilliance	Latex	Result	Agreement					
2020	b+	364,46	Chocolate Pudding	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	b+	364,67	Dark Chocolate	SE	1,2	t	t	t	t	Salmonella spp.	P	ng	/	/	ng / ng	A	A	ND	ng	/	A	ND	ng	/	A	ND				
2020	b+	364,68	Dark Chocolate	SE	2,0	t	t	t	t	Salmonella spp.	P	ng	/	/	ng / ng	A	A	ND	ng	/	A	ND	ng	/	A	ND				
2020	b-	364,70	Dark Chocolate	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	b-	364,71	Dark Chocolate	SE	2,6	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	b-	364,72	Dark Chocolate	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	b-	364,73	Dark Chocolate	SE	3,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	b-	364,74	Dark Chocolate	SE	1,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c+	364,47	Raw Organic Cacao Paste/Liquor	SE	0,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,48	Cacao Butter	SE	1,2	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,49	Cacao Paste	SE	2,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,5	Raw Cocoa Butter 100%	nc	/	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,51	Chocolate Liquor Chunks	SE	2,6	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,52	Cocoa Butter Refined	SE	2,2	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t / t	P	P	PD	t	+	P	PD	t	+	P	PD				
2020	c+	364,53	Organic Cacao Paste	SE	3,4	ng	ng	ng	ng	/	A	t	+	Salmonella spp.	t / t	P	P	PD	t	+	P	PD	t	+	P	PD				
2020	c+	364,54	Organic Cocoa Butter Wafers	SE	2,8	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	m / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,55	Organic Raw Cacao Beans	SE	2,6	at	ng	at	ng	/	A	t	+	Salmonella spp.	t / t	P	P	PD	t	+	P	PD	t	+	P	PD				
2020	c+	364,56	Unrefined Cocoa Butter	SE	3,4	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,57	Cocoa Beans	SE	2,2	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	m / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c-	364,58	Cocoa Butter Refined	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c+	364,59	Cocoa Beans	SE	3,0	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,6	Organic Cocoa Butter Wafers	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,61	Organic Cocoa Beans	nc	/	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	m / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c-	364,62	Cocoa beans	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c+	364,63	Raw Cacao Beans	SE	3,0	m	t	m	t	Salmonella spp.	P	t	+	Salmonella spp.	m / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c+	364,64	Cocoa Butter	SE	2,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c-	364,65	Organic Raw Cacao Beans	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c+	364,66	Cocoa Butter	SE	1,8	t	t	t	t	Salmonella spp.	P	t	+	Salmonella spp.	t / t	P	P	PA	t	+	P	PA	t	+	P	PA				
2020	c-	364,75	Cocoa Butter	SE	0,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,76	Cocoa Butter	SE	1,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,77	Cocoa Butter	SE	2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,78	Cocoa Butter	SE	2,4	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,79	Cocoa Butter	SE	3,0	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,8	Cocoa Butter	SE	2,2	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				
2020	c-	364,81	Cocoa Butter	SE	2,8	ng	ng	ng	ng	/	A	ng	/	/	ng / ng	A	A	NA	ng	/	A	NA	/	/	A	NA				

## **APPENDIX J**

### **Relative level of detection raw results**

#### **Renewal study (SURETECT data) : 1 2 3 4 5 8**

m: minoritary level of target analyte

M : majoritary level of target analyte

P: pure culture level of target analyte

1/2 : 50% level of target analyte

(x): number of colonies in the plate

-: no typical colonies but presence of background microflora

st: plate without any colony

d: doubtful result

PA: positive agreement

NA: negative agreement

ND: negative deviation

PD: positive deviation

PPNA: positive presumptive negative agreement

PPND : positive presumptive negative deviation

0: results are not available

w: weak reaction

/: not realized

#### **Extension study : 6 7**

##### **Bacterial burden**

Ø: no culture

L = low

M = moderate

H = high

/: not realized

##### **Distribution of flora**

A = pure culture of suspect colonies

B = mixture with a majority of suspect colonies

C = mixture with a minority of suspect colonies

D = mixture with rare suspect colonies

E = absence of suspect colonies

(x): x colonies characteristic of Salmonella if  $x \leq 5$

#### **Extension study : 9 10**

t	Only typical colonies present
at	Only atypical colonies present
m	Both typical and atypical colonies present
ng	No growth present

Meat products

Matrix: Raw Chicken meat

Strain: *Salmonella* Bredeney 975

Aerobic mesophilic flora:  $3,2 \cdot 10^4$  CFU/g

#	Level	Inoculation (CFU/25g)	ISO 6579 method						Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance salmonella	Confirmation		Final result	Positive / Total	
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests			
2045	1	0	-	-	-	-	-	0/5	-	/	/	-	0/5	
2046			-	-	-	-	-		-	/	/	-		
2047			-	-	-	-	-		-	/	/	-		
2048			-	-	-	-	-		-	/	/	-		
2049			-	-	-	-	-		-	/	/	-		
2151	2	1,0	+m(NC on TSA)	-	-	-	-	9/20	-	/	/	-	8/20	
2152			+1/2	+1/2	+M	+M	+		+1/2	+	+	+		
2153			+mni/-	-	-	-	-		-	/	/	-		
2154			+1/2	+1/2	+m	+M	+		+1/2	+	+	+		
2155			+mni/+d(NC on TSA)	-	-	-	-		-	/	/	-		
2156			+mni/+d(NC on TSA)	-	-	-	-		-	/	/	-		
2157			+1/2	+1/2	+M	+M	+		-	/	/	-		
2158			+mni/+d(NC on TSA)	-	-	-	-		-	/	/	-		
2159			-	-	-	-	-		-	/	/	-		
2160			+mni/-	-	-	-	-		+M	+	+	+		
2161			+m	+m	+M	+M	+		-	/	/	-		
2162			+mni/+d(NC on TSA)	-	-	-	-		-	/	/	-		
2163			+M	+1/2	+m	+M	+		+M	+	+	+		
2164			+m	+m	+mni	+m	+		+1/2	+	+	+		
2165			+m	+mni	+m	+M	+		+1/2	+	+	+		
2166			+mni/+d	+mni	-	+md	+		+1/2	+	+	+		
2167			+mni/+d(NC on TSA)	-	-	-	-		-	/	/	-		
2168			-	-	-	-	-		-	/	/	-		
2169			-	-	-	-	-		-	/	/	-		
2170			+1/2	+1/2	+m	+M	+		+1/2	+	+	+		
2171	3	2,7	+1/2	+1/2	+m	+M	+	5/5	+1/2	+	+	+	3/5	
2172			+m	+m	+mni/+	+M	+		+1/2	+	+	+		
2173			+M	+M	+m	+M	+		+1/2	+	+	+		
2174			+m	+m	+m	+M	+		-	/	/	-		
2175			+M	+m	+M	+M	+		-	/	/	-		

Dairy products

Matrix: Raw Milk

Strain: *Salmonella* Ohio Ad1482

Aerobic mesophilic flora:  $5,4 \cdot 10^7$  CFU/g

N° Sample	Level	Inoculation (CFU/25g)	ISO 6579 method					Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance <i>salmonella</i>	Confirmation		Final result	Positive / Total
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests		
2353	1	0	-	-	-	-	-	0/5	-	/	/	-	0/5
2354			-	-	-	-	-		-	/	/	-	
2355			-	-	-	-	-		-	/	/	-	
2356			-	-	-	-	-		-	/	/	-	
2357			-	-	-	-	-		-	/	/	-	
2358	2	1,1	+m/+	+m/+	+1/2	+1/2	+	11/20	+mni/+	+	+	+	13/20
2359			+1/2	+1/2	+M	+1/2	+		+mni/+	+	+	+	
2360			+m	+m	+M	+M	+		-	/	/	-	
2361			-	-	-	-	-		-	/	/	-	
2362			+m	+m	+M	+1/2	+		+mni/+	+	+	+	
2363			+m	+m	+M	+M	+		+m	+	+	+	
2364			+m/+	+m/+	+d/+m	+d/+m	+		-	/	/	-	
2365			-	-	-	-	-		+mni/+	+	+	+	
2366			-	-	-	-	-		-	/	/	-	
2367			-	-	-	-	-		-	/	/	-	
2368			+md	+md	-	-	+		+d/+	+	+	-	
2369			+m	+m	+1/2	+M	+		+mni/+	+	+	+	
2370			-	-	-	-	-		-	/	/	-	
2371			+1/2	+1/2	+M	+M	+		+mni/+	+	+	+	
2372			-	-	-	-	-		+mni/+	+	+	+	
2373			-	-	-	-	-		+md/+	+	+	-	
2374			+m	+m	+M	+M	+		+m/+	+	+	+	
2375			-	-	-	-	-		-	/	/	-	
2376			-	-	-	-	-		+mni/+	+	+	+	
2377			+md/+m	+md/+m	-	-	+		+m	+	+	+	
2378	3	3,2	+m	+1/2	+M	+M	+	5/5	+M	+	+	+	5/5
2379			+1/2	+1/2	+M	+M	+		+M	+	+	+	
2380			+1/2	+1/2	+1/2	+M	+		+1/2	+	+	+	
2381			+m	+m	+M	+M	+		+M	+	+	+	
2382			+m	+m	+M	+M	+		+1/2	+	+	+	

Seafood products

Matrix: Fish terrine

Strain: *Salmonella* Derby Ad1093

Aerobic mesophilic flora: <20 CFU/g

N° Sample	Level	Inoculation (CFU/25g)	ISO 6579 method					Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance salmonella	Confirmation		Final result	Positive / Total
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests		
7163	1	0	st	st	st	st	-	0/5	st	/	/	-	0/5
7164			st	st	st	st	-		st	/	/	-	
7165			st	st	st	st	-		st	/	/	-	
7166			st	st	st	st	-		st	/	/	-	
7167			st	st	st	st	-		st	/	/	-	
7173	2	0,7	st	st	st	st	-	7/20	+p	+	+	+	9/20
7174			st	st	st	st	-		st	/	/	-	
7175			+p	+p	+p	+p	+		+p	+	+	+	
7176			st	st	st	st	-		+p	+	+	+	
7177			st	st	st	st	-		st	/	/	-	
7178			+p	+p	+p	+p	+		+p	+	+	+	
7179			st	st	st	st	-		+p	+	+	+	
7180			+p	+p	+p	+p	+		+p	+	+	+	
7181			st	st	st	st	-		+p	+	+	+	
7182			st	st	st	st	-		st	/	/	-	
7183			st	st	st	st	-		st	/	/	-	
7184			st	st	st	st	-		st	/	/	-	
7185			st	st	st	st	-		st	/	/	-	
7186			+p	+p	+p	+p	+		st	/	/	-	
7187			st	st	st	st	-		+p	+	+	+	
7188			+p	+p	+p	+p	+		st	/	/	-	
7189			st	st	st	st	-		st	/	/	-	
7190			st	st	st	st	-		+p	+	+	+	
7191			+p	+p	+p	+p	+		st	/	/	-	
7192			+p	+p	+p	+p	+		st	/	/	-	
7168	3	2,0	+p	+p	+p	+p	+	5/5	st	/	/	-	3/5
7169			+p	+p	+p	+p	+		+p	+	+	+	
7170			+p	+p	+p	+p	+		st	/	/	-	
7171			+p	+p	+p	+p	+		+p	+	+	+	
7172			+p	+p	+p	+p	+		+p	+	+	+	

Vegetables

Matrix: Frozen spinach

Strain: *Salmonella* Virchow Ad1721

Aerobic mesophilic flora:  $8,4 \cdot 10^7$  CFU/g

N°Sample	Level	Inoculation (CFU/25g)	ISO 6579 method					Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance <i>salmonella</i>	Confirmation		Final result	Positive / Total
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests		
7295	1	0	-	-	-	-	-	0/5	-	/	/	-	0/5
7296			-	-	-	-	-		-	/	/	-	
7297			-	-	-	-	-		-	/	/	-	
7298			-	-	-	-	-		-	/	/	-	
7299			-	-	-	-	-		-	/	/	-	
7300	2	0,7	+M	+M	+M	+M	+	7/20	+1/2	+	+	+	7/20
7301			-	-	-	-	-		+M	+	+	+	
7302			+M	+M	+M	+M	+		-	/	/	-	
7303			-	-	-	-	-		-	/	/	-	
7304			-	-	-	-	-		-	/	/	-	
7305			-	-	-	-	-		-	/	/	-	
7306			-	-	-	-	-		-	/	/	-	
7307			+M	+M	+M	+M	+		-	/	/	-	
7308			+M	+M	+M	+M	+		+M	+	+	+	
7309			-	-	-	-	-		-	/	/	-	
7310			+M	+M	+M	+M	+		+M	+	+	+	
7311			+M	+M	+M	+M	+		-	/	/	-	
7312			-	-	-	-	-		-	/	/	-	
7313			-	-	-	-	-		-	/	/	-	
7314			-	-	-	-	-		-	/	/	-	
7315			-	-	-	-	-		+M	+	+	+	
7316			+M	+M	+M	+M	+		+M	+	+	+	
7317			-	-	-	-	-		-	/	/	-	
7318			-	-	-	-	-		+1/2	+	+	+	
7319			-	-	-	-	-		-	/	/	-	
7320	3	1,9	+M	+M	+M	+M	+	5/5	+M	+	+	+	5/5
7321			+M	+M	+1/2	+M	+		+M	+	+	+	
7322			+M	+M	+M	+M	+		+M	+	+	+	
7323			+M	+M	+M	+M	+		+M	+	+	+	
7324			+M	+M	+M	+M	+		+M	+	+	+	

Environmental samples

Matrix: Process water

Strain: *Salmonella* Livingstone A00L058

Aerobic mesophilic flora:  $2,0 \cdot 10^5$  CFU/g

N°Sample	Level	Inoculation (CFU/25g)	ISO 6579 method					Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance salmonella	Confirmation		Final result	Positive / Total
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests		
2511	0	0	-	-	-	-	-	0/5	-	/	/	-	0/5
2512			st	st	st	st	-		st	/	/	-	
2513			st	st	st	st	-		st	/	/	-	
2514			st	st	st	st	-		st	/	/	-	
2515			st	st	st	st	-		st	/	/	-	
2516	1	0,7	st	st	st	st	-	9/20	st	/	/	-	8/20
2517			+p	+p	+p	+p	+		+p	+	+	+	
2518			st	st	st	st	-		st	/	/	-	
2519			+p	+p	+p	+p	+		+p	+	+	+	
2520			+M	+M	+M	+M	+		+M	+	+	+	
2521			st	st	st	st	-		st	/	/	-	
2522			+p	+p	+p	+p	+		+p	+	+	+	
2523			-	-	-	-	-		-	/	/	-	
2524			+p	+p	+p	+p	+		+p	+	+	+	
2525			-	-	-	-	-		-	/	/	-	
2526			+p	+p	+p	+p	+		+p	+	+	+	
2527			-	-	-	-	-		-	/	/	-	
2528			st	st	st	st	-		st	/	/	-	
2529			+M	+M	+M	+M	+		+M	+	+	+	
2530			st	st	st	st	-		-	/	/	-	
2531			st	st	st	st	-		st	/	/	-	
2532			+1/2	+1/2	+1/2	+1/2	+		-	/	/	-	
2533			st	st	st	st	-		-	/	/	-	
2534			+p	+p	+p	+p	+		+p	+	+	+	
2535			st	st	st	st	-		st (x5)	/	/	-	
2536	2	2,1	+M	+M	+M	+M	+	5/5	+p	+	+	+	5/5
2537			+M	+M	+M	+M	+		+1/2	+	+	+	
2538			+p	+p	+p	+p	+		+p	+	+	+	
2539			+p	+p	+p	+p	+		+p	+	+	+	
2540			+p	+p	+p	+p	+		+p	+	+	+	

Specific ingredients and foods

Matrix: Whole egg pasteurized

Bacterial strain: *Salmonella* Enteritidis GKD786

Enumeration of the microorganisms: 4 CFU/g

Code	CFU/25g	Reference method: EN ISO 6579-1:2017 <sup>(■)</sup>						Alternative method: <i>Salmonella</i> PRECIS			Number of positive results / method	
		RVS		MKTn		Confirmation	Final result	Brilliance <i>Salmonella</i> agar	Confirmation			
		XLD	RAPID' <i>Salmonella</i>	XLD	RAPID' <i>Salmonella</i>				Latex (+/-)	Classical tests		
1845179	0	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	RM : 0 / 5 AM : 0 / 5
1845180		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1845181		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1845182		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1845183		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1845184	0,7	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	RM : 10 / 20 AM : 14 / 20
1845185		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (EM)	/	/	Negative	
1845186		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845187		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845188		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (EM)	/	/	Negative	
1845189		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (EM)	/	/	Negative	
1845190		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845191		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845192		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845193		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (EM)	/	/	Negative	
1845194		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (EM)	/	/	Negative	
1845195		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845196		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845197		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (EM)	/	/	Negative	
1845198		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845199	2,1	+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	RM : 5 / 5 AM : 5 / 5
1845200		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845201		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845202		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845203		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845204	2,1	+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	RM : 5 / 5 AM : 5 / 5
1845205		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845206		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845207		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1845208		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	

Milk powders 375 g

**Matrix:** Powdered infant formula with probiotics

**Strain:** *Salmonella* Mbandaka Ad1810

**Anaerobic lactic flora:**  $5,4 \cdot 10^6$  CFU/g

N°Sample	Level	Inoculation (CFU/25g)	ISO 6579 method					Alternative method : <i>Salmonella</i> Precis					
			RVS broth		MKTn broth		Result	Positive / Total	Brilliance <i>salmonella</i>	Confirmation		Final result	Positive / Total
			XLD	ASAP	XLD	ASAP				Latex (+/-)	Classical tests		
585	0	0	st	st	st	st	-	0/5	st	/	/	-	0/5
586			st	st	st	st	-		st	/	/	-	
587			st	st	st	st	-		st	/	/	-	
588			st	st	st	st	-		st	/	/	-	
589			st	st	st	st	-		st	/	/	-	
1488	1	3,0	+p	+p	+p	+p	+	8/20	st	/	/	-	18/20
1489			st	st	st	st	-		+p	+	+	+	
1490			+p	+p	+p	+p	+		+p	+	+	+	
1491			+p	+p	+p	+p	+		+p	+	+	+	
1492			st	st	st	st	-		+p	+	+	+	
1493			+p	+p	+p	+p	+		+p	+	+	+	
1494			+p	+p	+p	+p	+		+p	+	+	+	
1495			st	st	st	st	-		+p	+	+	+	
1496			+p	+p	+p	+p	+		+p	+	+	+	
1497			+p	+p	+p	+p	+		st	/	/	-	
1498			st	st	st	st	-		+p	+	+	+	
1499			st	st	st	st	-		+p	+	+	+	
1500			st	st	st	st	-		+p	+	+	+	
1501			st	st	st	st	-		+p	+	+	+	
1502			st	st	st	st	-		+p	+	+	+	
1503			st	st	st	st	-		+p	+	+	+	
1504			st	st	st	st	-		+p	+	+	+	
1505			+p	+p	+p	+p	+		+p	+	+	+	
1506			st	st	st	st	-		+p	+	+	+	
1507			st	st	st	st	-		+p	+	+	+	
1342	2	6,7	st	st	st	st	-	2/5	+p	+	+	+	5/5
1343			st	st	st	st	-		+p	+	+	+	
1344			+p	+p	+p	+p	+		+p	+	+	+	
1345			st	st	st	st	-		+p	+	+	+	
1346			+p	+p	+p	+p	+		+p	+	+	+	

**Animal feed 150 g**

Matrix: Cat kibble

Bacterial strain: *Salmonella* Infantis EFG554

Enumeration of the microorganisms: 50 CFU/g

Code	CFU/150g	Reference method: EN ISO 6579-1:2017 <sup>(■)</sup>					Alternative method: <i>Salmonella</i> PRECIS				Number of positive results / method	
		RVS		MKTn		Confirmation	Final result	Brilliance <i>Salmonella</i> agar	Confirmation			
		XLD	RAPID' <i>Salmonella</i>	XLD	RAPID' <i>Salmonella</i>				Latex (+/-)	Classical tests		
1854746	0	- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	RM : 0 / 5 AM : 0 / 5
1854747		- (EM)	- (EL)	- (EM)	- (ØE)	/	Negative	- (EM)	/	/	Negative	
1854748		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1854749		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1854750		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1854721	0,8	+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (ØE)	/	/	Negative	RM : 11 / 20 AM : 10 / 20
1854722		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854723		- (EL)	- (EL)	- (EL)	- (EL)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854724		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (EL)	/	/	Negative	
1854725		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854726		- (EL)	- (EL)	- (EL)	- (EL)	/	Negative	- (ØE)	/	/	Negative	
1854727		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (ØE)	/	/	Negative	
1854728		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854729		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (ØE)	/	/	Negative	
1854730		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854731		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854732		- (EL)	- (EL)	- (EL)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854733		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	- (EL)	/	/	Negative	
1854734		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (EL)	/	/	Negative	
1854735		- (EL)	- (ØE)	- (EL)	- (ØE)	/	Negative	- (ØE)	/	/	Negative	
1854736		- (ØE)	- (ØE)	- (ØE)	- (ØE)	/	Negative	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854737		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854738		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	- (ØE)	/	/	Negative	
1854739		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854740		- (EL)	- (EL)	- (EL)	- (EL)	/	Negative	- (ØE)	/	/	Negative	
1854741	2,9	+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	RM : 5 / 5 AM : 5 / 5
1854742		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854743		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (BM)	+	<i>Salmonella</i> spp.	Positive	
1854744		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	
1854745		+ (AM)	+ (AM)	+ (AM)	+ (AM)	<i>Salmonella</i> spp.	Positive	+ (AM)	+	<i>Salmonella</i> spp.	Positive	

Cocoa products 375 g paired

Matrix: Cocoa powder 375 g

Bacterial strain: *Salmonella* Infantis QL052016.18

Enumeration of the microorganisms: 240 CFU/g

Cocoa Powder - 375 g																	
Inoculation Level		Sample	Reference method: EN ISO 6579-1:2017								Alternative method: <i>Salmonella</i> PRECIS - Pre-warmed BPW						
			MKTn		RVS		Agglutinations		Microbact 24E	Final Result	Positive/ Total	Streaking		Oxoid <i>Salmonella</i> Latex	Microbact 24E	Final Result	Positive/ Total
			XLD	BSA	XLD	BSA	O	H				XLD	BSA				
Uninoculated	0	364,84	ng	ng	ng	ng	/	/	/	Negative	0/5	ng	ng	/	/	Negative	0/5
		364,92	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	/	
		364,98	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	/	
		364,102	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	/	
		364,108	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	/	
Low	1,1	364,82	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive	15/20	t	t	+	<i>Salmonella</i> spp.	Positive	13/20
		364,85	ng	ng	ng	ng	/	/	/	Negative		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,86	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	Negative	
		364,87	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		ng	ng	/	/	Negative	
		364,88	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		ng	ng	/	/	Negative	
		364,89	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		ng	ng	/	/	Negative	
		364,90	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,91	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,94	ng	ng	ng	ng	/	/	/	Negative		ng	ng	/	/	Negative	
		364,95	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,96	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		ng	ng	/	/	Negative	
		364,97	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,99	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,100	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,101	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,104	ng	ng	ng	ng	/	/	/	Negative		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,105	ng	ng	ng	ng	/	/	/	Negative		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,106	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		ng	ng	/	/	Negative	
		364,109	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,111	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
High	9,2	364,83	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive	5/5	t	t	+	<i>Salmonella</i> spp.	Positive	5/5
		364,93	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,103	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,107	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,110	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	

Cocoa products 375 g unpaired

Matrix: Cocoa powder 375g

Bacterial strain: *Salmonella* Infantis QL052016.18

Enumeration of the microorganisms: 240 CFU/g

Cocoa Powder - 375 g																	
Inoculation Level		Sample	Reference method: EN ISO 6579-1:2017							Alternative method: <i>Salmonella</i> PRECIS - Pre-warmed UHT milk							
			MKTn		RVS		Agglutinations		Microbact 24E	Final Result	Positive/ Total	Streaking		Oxoid <i>Salmonella</i> Latex	Microbact 24E	Final Result	Positive/ Total
			XLD	BSA	XLD	BSA	O	H				XLD	BSA				
Uninoculated	0	364,84	ng	ng	ng	ng	/	/		Negative	0/5	ng	ng	/	/	Negative	0/5
		364,92	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,98	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,102	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,108	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
Low	1,1	364,82	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive	15/20	t	t	+	<i>Salmonella</i> spp.	Positive	15/20
		364,85	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,86	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,87	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,88	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,89	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,90	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,91	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,94	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,95	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,96	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,97	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,99	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,100	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,101	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,104	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,105	ng	ng	ng	ng	/	/		Negative		ng	ng	/	/	Negative	
		364,106	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,109	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,111	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
High	9,2	364,83	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive	5/5	t	t	+	<i>Salmonella</i> spp.	Positive	5/5
		364,93	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,103	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,107	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	
		364,110	t	t	t	t	+	+	<i>Salmonella</i> spp.	Positive		t	t	+	<i>Salmonella</i> spp.	Positive	