ADRIA FOOD EXPERTISE

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# NF VALIDATION
## Validation of alternative analytical methods
*Application in food microbiology*

## Summary report
**Validation study according to EN ISO 16140-2:2016**

# 3M™ Petrifilm™ Aerobic Count Plate
**(Certificate number: 3M 01/01 - 09/89)**
**for the enumeration of mesophilic aerobic flora in all human food, pet food and production environmental samples**

## Quantitative method

| | |
|---|---|
| ***Expert Laboratory:*** | **ADRIA Développement**<br>ZA Creac'h Gwen<br>29196 Quimper Cedex (France) |
| ***For:*** | **3M Food Safety**<br>3M Food Safety Department<br>3M Center, 0260-06B-01<br>St. Paul, MN 55144 (USA) |

This report consists of 73 pages, including 8 appendices.
Only copies including the totality of this report are authorized.

Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol◆.

Version 0
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Quality Assurance documents related to this study can be consulted upon request from **3M Health Care**.

The technical protocol and the result interpretation were carried out according to the EN ISO 16140-2:2016 and the AFNOR technical rules (PR revision 7).

| | |
|---|---|
| **Validation protocols** | ▪ EN ISO 16140-1 (June 2016): Microbiology of the food chain - Method validation - *Part 1: Vocabulary*<br>▪ EN ISO 16140-2 (June 2016): Microbiology of the food chain - Method validation - *Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method*<br>▪ AFNOR Technical Rules (PR Revision n° 7) |
| **Reference method♦** | ISO 4833-1 (September 2013) - Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique |
| **Alternative method** | **3M™ Petrifilm™ Aerobic Count Plate** |
| **Scope** | ☒ **All human food**<br>☒ **Pet food**<br>☒ **Production environmental samples** |
| **Certification organism** | AFNOR Certification (http://nf-validation.afnor.org/) |

♦ Analyses performed according to the COFRAC accreditation

# 1 INTRODUCTION

The **3M™ Petrifilm™ Aerobic Count Plate** was validated in September 1989 (Certificate number: 3M 01/1 - 09/89). An overview of the validations is given in Table 1.

**Table 1 - Overview of the validation**

| Validation | Scope | Date | Expert Lab | Validation standard |
|---|---|---|---|---|
| Initial validation | Raw milk | 29th September 1989 | Data from PITON & GRAPPIN | / |
| Extension study | Butter | 24th September 1992 | Data from PITON & GRAPPIN | / |
| Extension study | Vegetables and raw vegetable-based preparations | 24th September 1992 | ADRIA Normandie | / |
| Extension study | Pasteurized milk | 24th November 1992 | ADRIA Normandie | / |
| Extension study | Meat products | 28th January 1993 | ADRIA Normandie | / |
| Renewal study | All human food | 6th September 1993 | ADRIA Normandie | |
| Renewal study | All human food | 10th September 1997 | ADRIA | / |
| Renewal study | All human food | 13th December 2001 | ADRIA | / |
| Renewal study | All human food | 14th June 2005 | ADRIA | ISO 16140 (2003) |
| Extension study | For enumeration after 48 h incubation time for all human food excluding raw shellfish and dairy products | 10th September 2007 | ADRIA | ISO 16140 (2003) |
| Renewal study | All human food | 3rd July 2009 | ADRIA | ISO 16140 (2003)<br>ISO 16140/A1 (2011) |
| Renewal study | All human food | 4th July 2013 | ADRIA | ISO 16140 (2003)<br>ISO 16140/A1 (2011) |
| Extension study | Pet food<br>Production environmental samples | 6th February 2015 | ADRIA | ISO 16140 (2003)<br>ISO 16140/A1 (2011) |
| Renewal study | All human food<br>Pet food<br>Production environmental samples | 2nd October 2017 | ADRIA | ISO 16140 (2016) |
| Renewal study | All human food<br>Pet food<br>Production environmental samples | 16th June 2021 | ADRIA | ISO 16140-2 (2016) |

# 2 METHOD DESCRIPTIONS

## 2.1 Alternative method

The flow diagram of the alternative method is provided in **Appendix 1**.

### *2.1.1 Principle*

The 3M™ Petrifilm Aerobic Count (AC) Plate is a sample-ready-culture medium system which contains modified Standard Methods nutrients, a cold-water-soluble gelling agent, and a tetrazolium indicator that facilitates colony enumeration. 3M Petrifilm AC Plates are used for the enumeration of aerobic bacteria in the food and beverage industries.

### *2.1.2 Protocol*

The enumeration is possible:

- After 48 h ± 3 h at 30°C for all human food, pet food and environmental samples except dairy products and raw shellfish
- After 72 h ± 3 h at 30°C for all human food, pet food and environmental samples.

It is possible to store the 3M Petrifilm Aerobic Count (AC) Plate for less than or equal to - 15°C for no longer than one week before proceeding to enumeration.

### *2.1.3 Restrictions*

There is no restriction.

## 2.2 Reference method◆

The reference method used for comparison according to the ISO 16140-2 is the ISO 4833-1:2013 - Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique (See **Appendix 2**).

◆ Analysis performed according to the COFRAC accreditation

## 2.3 Protocols applied during the initial validation and the renewal study

❒ ***Incubation times***

- After 45 h at 30°C for all human food, pet food and environmental samples except dairy products and raw shellfish
- After 69 at 30°C for all human food, pet food and environmental samples.

# 3 INITIAL VALIDATION STUDY AND EXTENSION / RENEWAL STUDIES: RESULTS

## 3.1 Method comparison study

**The method comparison study is a study performed by the expert laboratory to compare the alternative method with the reference method.**

*The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.*
*For any comment on the alternative method, please contact AFNOR Certification at http://nf-validation.afnor.org/contact-2/.*

### *3.1.1 Relative trueness study*

*The relative trueness is the degree of correspondence between the response obtained by the reference method and the response obtained by the alternative method on identical samples.*

#### *3.1.1.1 Number and nature of the samples*

Seven categories were tested. The repartition per tested category and type is provided in Table 2.

Samples were analyzed (135 for 48 h incubation time and 314 for 72 h incubation time), leading to 110 exploitable results for 48 h incubation time and 281 for 72 h incubation time.

**Table 2 – Categories and types**

| Category | | Type | | Incubation time : 48h | | Incubation time : 72h | |
|---|---|---|---|---|---|---|---|
| | | | | Number of samples analyzed | Number of samples with interpretable results | Number of samples analyzed | Number of samples with interpretable results |
| 1 | **Meat products** | a | Raw meats | 16 | 16 | 59 | 59 |
| | | b | Ready to reheat products | 7 | 5 | 9 | 7 |
| | | c | Delicatessen | 5 | 5 | 19 | 19 |
| | | | ***Total*** | ***28*** | ***26*** | ***87*** | ***85*** |
| 2 | **Dairy products** | a | Raw milks | / | / | 21 | 21 |
| | | b | Milk powders and powdered products | / | / | 13 | 13 |
| | | c | Pasteurized milks and dairy based desserts | / | / | 9 | 5 |
| | | | ***Total*** | ***/*** | ***/*** | ***43*** | ***39*** |
| 3 | **Seafood products** | a | Fresh | 5 | 5 | 9 | 9 |
| | | b | Frozen | 5 | 5 | 5 | 5 |
| | | c | Ready to eat, ready to reheat | 8 | 8 | 8 | 8 |
| | | | ***Total*** | ***18*** | ***18*** | ***22*** | ***22*** |
| 4 | **Fruits and vegetables** | a | Frozen | 5 | 5 | 5 | 5 |
| | | b | Fresh and bagged products | 5 | 5 | 52 | 52 |
| | | c | Ready to eat, ready to reheat | 6 | 6 | 32 | 32 |
| | | | ***Total*** | ***16*** | ***16*** | ***89*** | ***89*** |
| 5 | **Egg products and egg-based products** | a | Mayonnaise, custard… | 7 | 5 | 7 | 5 |
| | | b | Pasteurized egg | 7 | 5 | 7 | 5 |
| | | c | Pastry | 10 | 9 | 10 | 9 |
| | | | ***Total*** | ***24*** | ***19*** | ***24*** | ***19*** |
| 6 | **Pet food** | a | Dehydrated products (pellets...) | 8 | 5 | 8 | 5 |
| | | b | Humid products (balls, pâtés, sausages...) | 10 | 5 | 10 | 5 |
| | | c | Ingredients (dehydrated proteins, dehydrated raw materials...) | 5 | 5 | 5 | 5 |
| | | | ***Total*** | ***23*** | ***15*** | ***23*** | ***15*** |
| 7 | **Environmental samples** | a | Surfaces (wipes, swabs...) | 9 | 5 | 9 | 5 |
| | | b | Process water | 11 | 6 | 11 | 6 |
| | | c | Dusts (dairy and egg industries...) | 6 | 5 | 6 | 5 |
| | | | ***Total*** | ***26*** | ***16*** | ***26*** | ***16*** |
| **TOTAL** | | | | **135** | **110** | **314** | **285** |

### *3.1.1.2 Artificial and natural contamination of the samples*

Artificial contaminations were realized by spiking or seeding protocols. The inoculated strains, the contamination protocols, the injured protocols of the inoculated cells and the injury evaluation for the spiking protocol are provided in **Appendix 3**. Injury efficiency was evaluated by enumerating the pure culture on selective and non-selective agars.

276 samples were naturally contaminated, and 5 samples were artificially contaminated.

#### *3.1.1.3 Raw data*

The raw data are provided in **Appendix 4**.

The samples were analyzed by the reference and the alternative methods in order to have 15 interpretable results per incubation protocol, and 5 interpretable results per tested type.

The data are classified in three categories (See **Erreur ! Source du renvoi introuvable.**):

Interpretable results with the reference and the alternative methods;

- Results with less than 4 colonies per plate with the reference and/or the alternative method (indicated with "*" in the data) in order to have a more precise result. These results are not included in the calculation.
- Results below or above the quantification limit: according to the ISO 16140-2:2016, if any result (either reference or alternative method) is below the quantification limit, the data should be plotted using a substituted value of 1 $\log_{10}$ units less than the observed value in case of a lower than value. Similarly, any value greater than the upper limit should be amended by adding 1 log unit. These results are not included in the calculations but also appear on the graphs.

## Table 3 – Classification of the data

| Category | | Type | | Incubation time : 48h | | | | | Incubation time : 72h | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Number of samples analyzed | Number of samples with < 4 colonies /plate | Number of samples below or above the quantification limit | Number of samples with no result | Number of samples with interpretable results | Number of samples analyzed | Number of samples with < 4 colonies /plate | Number of samples below or above the quantification limit | Number of samples with no result | Number of samples with interpretable results |
| 1 | **Meat products** | a | Raw meats | 16 | 0 | 0 | 0 | 16 | 59 | 0 | 0 | 0 | 59 |
| | | b | Ready to reheat products | 7 | 0 | 2 | 0 | 5 | 9 | 1 | 1 | 0 | 7 |
| | | c | Delicatessen | 5 | 0 | 0 | 0 | 5 | 19 | 0 | 0 | 0 | 19 |
| | ***Total*** | | | ***28*** | ***0*** | ***2*** | ***0*** | ***26*** | ***87*** | ***1*** | ***1*** | ***0*** | ***85*** |
| 2 | **Dairy products** | a | Raw milks | / | / | / | / | / | 21 | 0 | 0 | 0 | 21 |
| | | b | Milk powders and powdered products | / | / | / | / | / | 13 | 0 | 0 | 0 | 13 |
| | | c | Pasteurized milks and dairy based desserts | / | / | / | / | / | 9 | 1 | 0 | 3 | 5 |
| | ***Total*** | | | ***/*** | ***/*** | ***/*** | ***/*** | ***/*** | ***43*** | ***1*** | ***0*** | ***3*** | ***39*** |
| 3 | **Seafood products** | a | Fresh | 5 | 0 | 0 | 0 | 5 | 9 | 0 | 0 | 0 | 9 |
| | | b | Frozen | 5 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 5 |
| | | c | Ready to eat, ready to reheat | 8 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 8 |
| | ***Total*** | | | ***18*** | ***0*** | ***0*** | ***0*** | ***18*** | ***22*** | ***0*** | ***0*** | ***0*** | ***22*** |
| 4 | **Fruits and vegetables** | a | Frozen | 5 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 5 |
| | | b | Fresh and bagged products | 5 | 0 | 0 | 0 | 5 | 52 | 0 | 0 | 0 | 52 |
| | | c | Ready to eat, ready to reheat | 6 | 0 | 0 | 0 | 6 | 32 | 0 | 0 | 0 | 32 |
| | ***Total*** | | | ***16*** | ***0*** | ***0*** | ***0*** | ***16*** | ***89*** | ***0*** | ***0*** | ***0*** | ***89*** |
| 5 | **Egg products and egg-based products** | a | Mayonnaise, custard… | 7 | 0 | 2 | 0 | 5 | 7 | 0 | 2 | 0 | 5 |
| | | b | Pasteurized egg | 7 | 0 | 2 | 0 | 5 | 7 | 0 | 2 | 0 | 5 |
| | | c | Pastry | 10 | 0 | 1 | 0 | 9 | 10 | 0 | 1 | 0 | 9 |
| | ***Total*** | | | ***24*** | ***0*** | ***5*** | ***0*** | ***19*** | ***24*** | ***0*** | ***5*** | ***0*** | ***19*** |
| 6 | **Pet food** | a | Dehydrated products (pellets...) | 8 | 1 | 2 | 0 | 5 | 8 | 1 | 2 | 0 | 5 |
| | | b | Humid products (balls, pâtés, sausages...) | 10 | 1 | 4 | 0 | 5 | 10 | 1 | 4 | 0 | 5 |
| | | c | Ingredients (dehydrated proteins, dehydrated raw materials...) | 5 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 5 |
| | ***Total*** | | | ***23*** | ***2*** | ***6*** | ***0*** | ***15*** | ***23*** | ***2*** | ***6*** | ***0*** | ***15*** |
| 7 | **Environmental samples** | a | Surfaces (wipes, swabs...) | 9 | 0 | 4 | 0 | 5 | 9 | 0 | 4 | 0 | 5 |
| | | b | Process water | 11 | 0 | 5 | 0 | 6 | 11 | 0 | 5 | 0 | 6 |
| | | c | Dusts (dairy and egg industries...) | 6 | 0 | 1 | 0 | 5 | 6 | 0 | 1 | 0 | 5 |
| | ***Total*** | | | ***26*** | ***0*** | ***10*** | ***0*** | ***16*** | ***26*** | ***0*** | ***10*** | ***0*** | ***16*** |
| **TOTAL** | | | | **135** | **2** | **23** | **0** | **110** | **314** | **4** | **22** | **3** | **285** |

The samples, which were not used in the calculations, are provided in Table 4.

**Table 4 - Samples which were not used in the calculations**

| Sample number | Product | Reference method : ISO 4833♦ | Alternative method : 3M™ Petrifilm™ Aerobic Count Plate | |
|---|---|---|---|---|
| | | Log (cfu/g) mean | Log (cfu/g) mean 48h | Log (cfu/g) mean 72h |
| T70 | Whole egg | <1,00 | <1 | <1,00 |
| T72 | Whole egg | <1 | <1,15 | <1,15 |
| T92 | Custard | 1,85 | <1,00 | <1,00 |
| T97 | Egg cream | 1,24 | <1,00 | <1,00 |
| 382 | Pastry | >5,48 | >5,48 | >5,48 |
| 3676 | Dusts from egg industry | <1,15 | <1,00 | <1,00 |
| 3830 | Pellets for cats (poultry) | <1,00 | <1,00 | <1,00 |
| 3831 | Pellets for cats (beef) | <1,00 | <1,00 | <1,00 |
| 3832 | Pellets for dogs (poultry) | 1,45* | 1,30* | 1,30* |
| 3833 | Pâté for cats (salmon) | <1,00 | <1,00 | <1,00 |
| 3834 | Sausages for dogs | >4,47 | >4,47 | >4,47 |
| 3835 | Sausages for dogs | 1,45* | <1,15 | <1,15 |
| 4007 | Process water (fish industry) | <1,00 | <1,00 | <1,00 |
| 4008 | Process water (fish industry) | 5,27 | >5,48 | >5,48 |
| 4009 | Process water (fish industry) | >5,48 | >5,48 | >5,48 |
| 4011 | Swab after cleaning (fish industry) | <1,00 | <1,15 | <1,15 |
| 4012 | Swab after cleaning (fish industry) | >5,48 | >5,48 | >5,48 |
| 4013 | Wipe after cleaning (fish industry) | >5,48 | >5,48 | >5,48 |
| 4014 | Wipe after cleaning (fish industry) | >5,48 | >5,48 | >5,48 |
| 4785 | Sausage for dog | 1,15* | 1,00* | <1,00* |
| 4130 | Ready to eat pork | <1,00 | 1,48* | 1,48* |
| 4134 | Pasteurized milk | <1,00 | 0,00 | <1,00 |
| 4138 | Dairy based dessert | 1,60 | 0,00 | <1,00 |
| 4144 | Sausage for dog | 1,60 | <1,00 | <1,00 |
| 4146 | Process water | <1,00 | <1,00 | <1,00 |
| 4150 | Rice pudding | 1,60 | 0,00 | 1,30* |
| 6808 | Pasteurized milk | <1,00 | 0,00 | <1,00 |
| 6810 | RTRH veal | 1,26* | <1,00 | 1,26* |
| 6816 | Process water (fish industry) | <1,00 | / | <1,00 |

♦ Analyses performed according to the COFRAC accreditation

### *3.1.1.4 Statistical interpretation*

The calculations are provided in **Appendix 5**.

The obtained data were analyzed using the scatter plot. The graphs are provided with the line of identity (y = x).
The Figures 1 to 7 show the data plotted for the different studied categories after 48 h incubation time (Figures 1a to 7a) and after 72 h incubation time (Figures 1b to 7b) and the Figures 8a and 8b for all the products.

**Figure 1 - Data plotted for the Meat products**

*Figure 1a - 48 h*

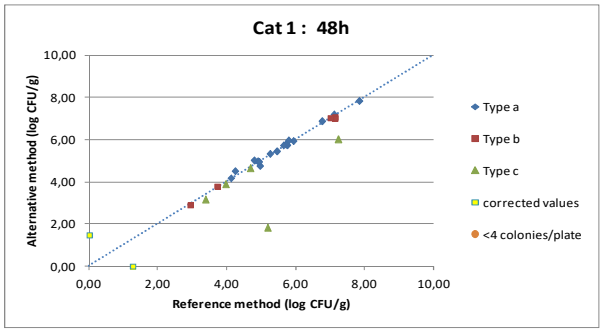



*Figure 1b - 72 h*

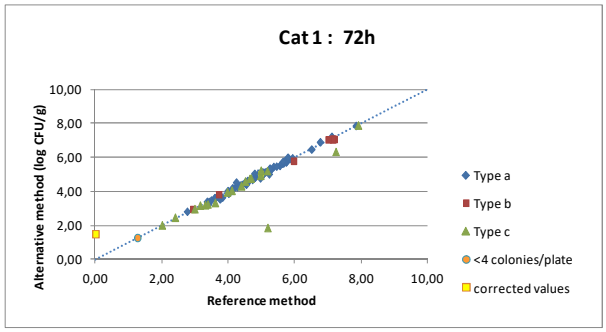
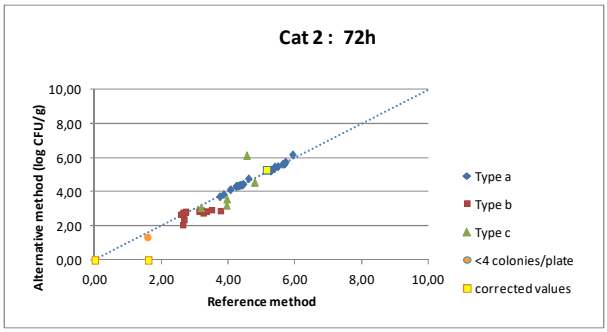



**Figure 2- Data plotted for Dairy products**

*Figure 2b -*



## Figure 3- Data plotted for Seafood products

*Figure 3a*

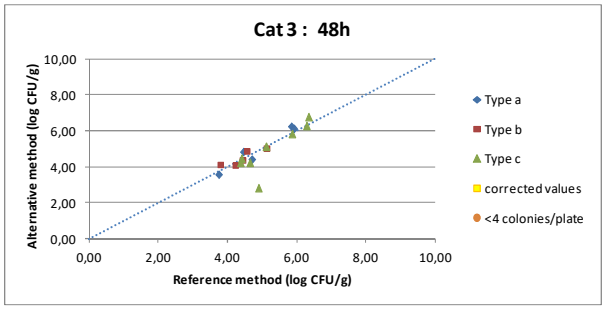
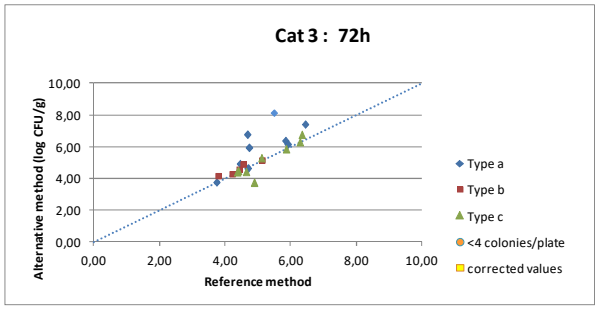



*Figure 3b*




## Figure 4- Data plotted for Fruits and vegetables

*Figure 4a*

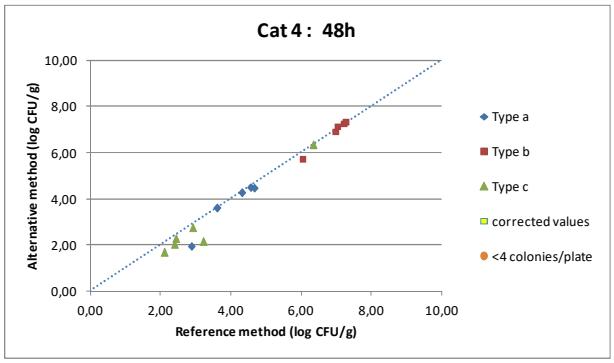
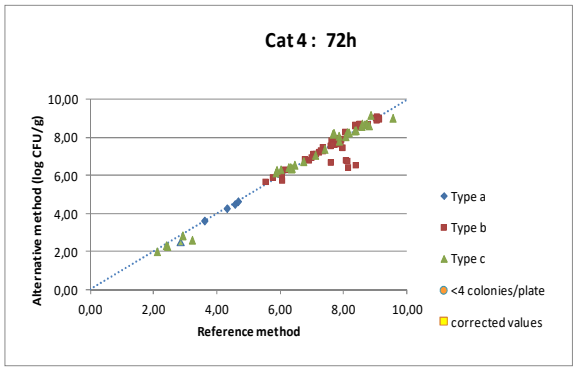



*Figure 4b*




## Figure 5- Data plotted for Egg products and egg-based products

*Figure 5a*

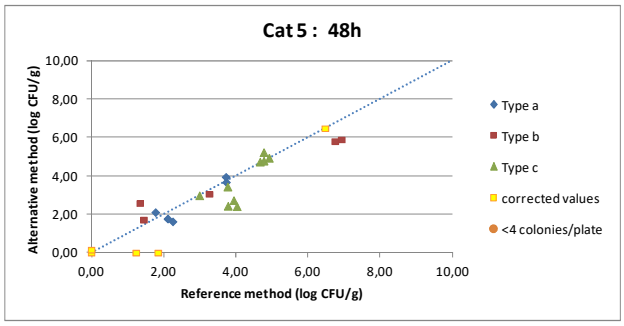
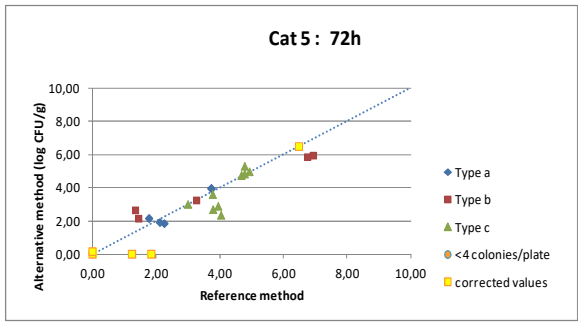



*Figure 5b*



## Figure 6- Data plotted for Pet food

*Figure 6a*

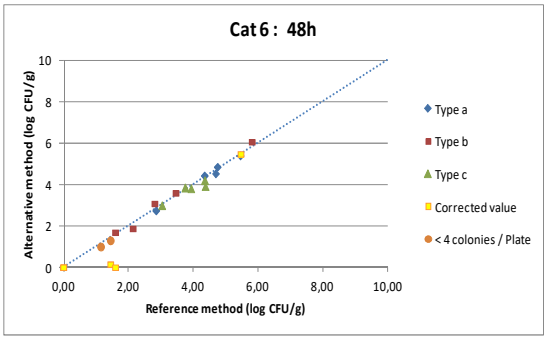
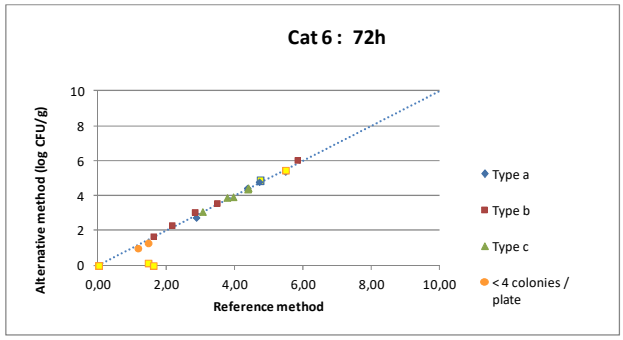



*Figure 6b*




## Figure 7- Data plotted for Environmental samples

*Figure 7a*

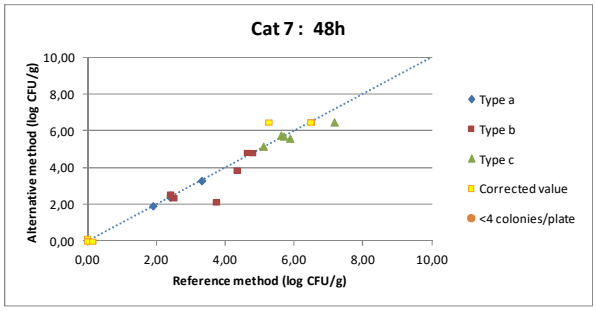
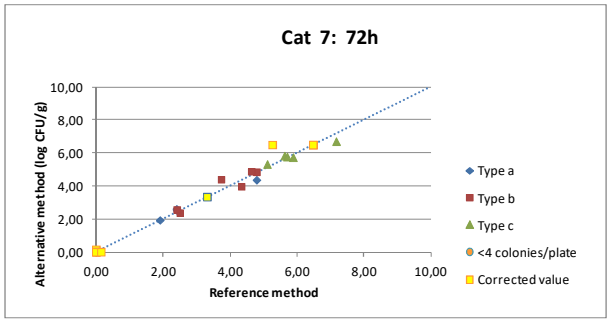



*Figure 7b*




## Figure 8 - Data plotted for all the products

*Figure 8a*

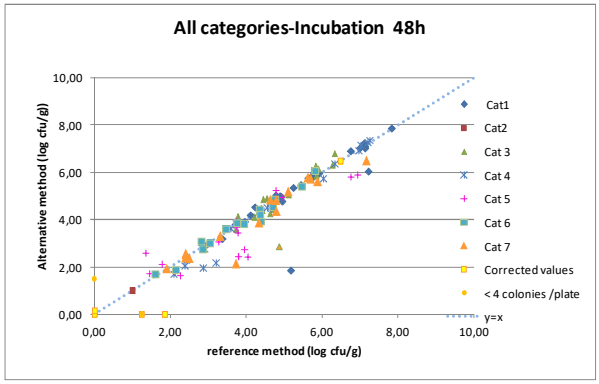
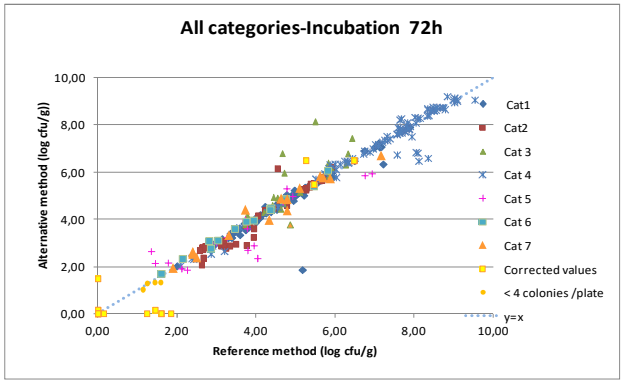



*Figure 8b*




The calculated values for Average difference and Standard deviation differences per category are provided in Table 5.

**Table 5 - Calculated values per incubation time**

| Incubation time | Category | | n | Linear bias $\overline{D}$ | SD | 95% lower limit | 95% upper limit |
|---|---|---|---|---|---|---|---|
| 48h | 1 | Meat products | 26 | -0,13 | 0,70 | -1,61 | 1,35 |
| | 2 | Dairy products | 0 | / | / | / | / |
| | 3 | Seafood products | 18 | -0,04 | 0,56 | -1,25 | 1,16 |
| | 4 | Fruits and vegetables | 16 | -0,20 | 0,34 | -0,94 | 0,54 |
| | 5 | Egg products and egg-based products | 19 | -0,27 | 0,71 | -1,81 | 1,26 |
| | 6 | Pet food | 15 | -0,01 | 0,11 | -0,27 | 0,24 |
| | 7 | Environmental samples | 16 | -0,23 | 0,50 | -1,33 | 0,87 |
| | **All categories** | | **110** | **-0,16** | **0,58** | **-1,31** | **0,99** |
| 72h | 1 | Meat products | 85 | -0,05 | 0,39 | -0,80 | 0,72 |
| | 2 | Dairy products | 39 | -0,04 | 0,38 | / | / |
| | 3 | Seafood products | 22 | 0,40 | 0,78 | -0,82 | 0,74 |
| | 4 | Fruits and vegetables | 89 | -0,02 | 0,39 | -1,27 | 2,06 |
| | 5 | Egg products and egg-based products | 19 | -0,17 | 0,72 | -0,79 | 0,75 |
| | 6 | Pet food | 15 | 0,04 | 0,09 | -1,73 | 1,38 |
| | 7 | Environmental samples | 16 | 0,02 | 0,30 | -0,17 | 0,24 |
| | **All categories** | | **285** | **-0,01** | **0,47** | **-0,92** | **0,91** |

$\overline{D}$: Average difference SD: Standard deviation of differences

The Bland-Altman difference plot for all the samples is given Figures 9a (after 48 h incubation time) and 9b (after 72 h incubation time).

**Figure 9 – Bland-Altman difference plot for all the samples**

*Figure 9a*

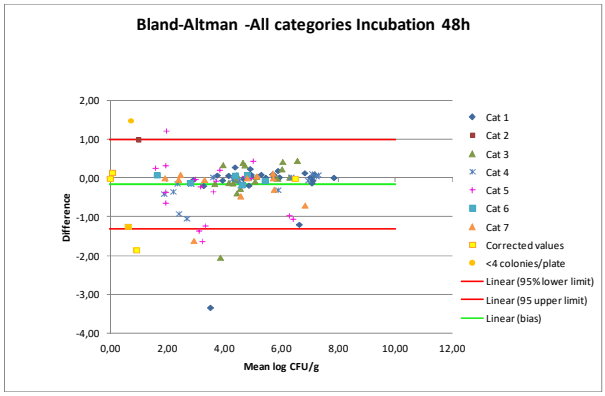
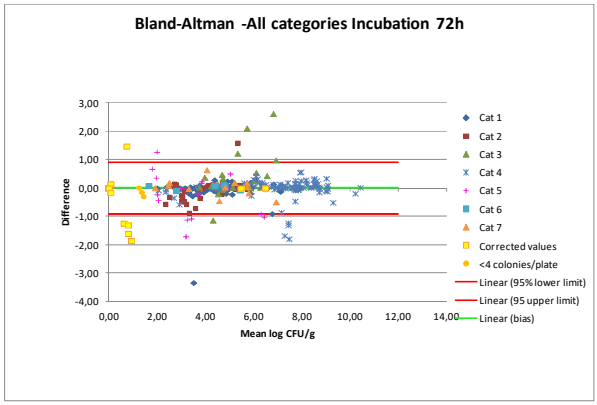



*Figure 9b*



The bias observed in both conditions is close to 0 (-0.16 log and -0.01 log) when combining all the categories. It varies from - 0.27 log to - 0.01 log for 48 h incubation time and varies from - 0.17 log to 0.40 log for 72 h incubation time.

Samples for which the difference between the result observed with the reference and the alternative methods is above or lower than the limits are listed in in Table 6.

## Table 6 - Analysis of the data out of the confidence limits

| Category | |
|---|---|
| 1 | Meat products |
| 2 | Dairy products |
| 3 | Seafood products |
| 4 | Fruits and vegetables |
| 5 | Egg products and egg-based products |
| 6 | Pet food |
| 7 | Environmental samples |

Values in green: differences in favor of the alternative method
Values in red: differences in favor of the reference method
Values in black: equivalent enumeration observed with both methods
Corrected value
Results calculated using enumeration lower than 4 CFU/plate

| Classification of data | Incubation time: 48h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cate-gory | Type | N° Sample | Product | Reference method | Alternative method | Values before correction (Ref/Alt) | Mean | Difference | Lower / Upper limits |
| Interpretable results by both methods | 1 | c | 4132 | Low moisture smoked ham | 5,18 | 1,85 | / | 3,51 | -3,33 | -1,32 /1,00 |
| | 3 | c | **T96** | Smoked salmon | 4,88 | 2,84 | / | 3,86 | -2,04 | |
| | 5 | b | **T93** | Whole egg | 1,35 | 2,58 | / | 1,97 | 1,23 | |
| | 5 | c | **T17** | Iced nougat | 3,79 | 2,44 | / | 3,12 | -1,35 | |
| | 5 | c | **T20** | Iced nougat | 4,04 | 2,42 | / | 3,23 | -1,62 | |
| | 7 | b | 3839 | Process water (peas industry) | 3,74 | 2,13 | / | 2,93 | -1,61 | |
| < or > the quantification limit | 1 | a | 4130 | Ready to eat pork | 0,00 | 1,48 | <1,00 | 0,74 | 1,48 | |
| | 5 | a | **T92** | Custard | 1,85 | 0,00 | <1,00 | 0,93 | -1,85 | |

| Classification of data | Incubation time: 72h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Cate-gory** | **Type** | **N° Sample** | **Product** | **Reference method** | **Alternative method** | **Values before correction (Ref/Alt)** | **Mean** | **Difference** | **Lower / Upper limits** |
| Interpretable results by both methods | 1 | c | 4132 | Low moisture smoked ham | 5,18 | 1,85 | / | 3,51 | -3,33 | -0,92 /0,91 |
| | 2 | c | 4137 | Fresh cheese | 4,54 | 6,15 | / | 1,60 | 1,60 | |
| | 3 | a | **T65** | Cuttlefish | 6,43 | 7,42 | / | 6,93 | 0,99 | |
| | 3 | a | **T86** | Mussels | 4,67 | 6,78 | / | 5,73 | 2,11 | |
| | 3 | a | **T87** | Clams | 4,72 | 5,95 | / | 5,34 | 1,23 | |
| | 3 | a | **T88** | Clams (littlenecks) | 5,50 | 8,13 | / | 6,82 | 2,63 | |
| | 3 | c | **T96** | Smoked salmon | 4,88 | 3,75 | / | 4,32 | -1,13 | |
| | 4 | b | ADRIA Normandie | Mixed crudités | 8,05 | 6,83 | / | 7,44 | -1,22 | |
| | 4 | b | ADRIA Normandie | Mixed crudités | 8,09 | 6,80 | / | 7,44 | -1,30 | |
| | 4 | b | ADRIA Normandie | Mixed crudités | 8,36 | 6,57 | / | 7,46 | -1,78 | |
| | 4 | b | ADRIA Normandie | Mixed crudités | 8,12 | 6,45 | / | 7,29 | -1,67 | |
| | 5 | b | 379 | Whole egg | 6,94 | 5,93 | / | 6,43 | -1,01 | |
| | 5 | c | **T17** | Iced nougat | 3,79 | 2,68 | / | 3,24 | -1,11 | |
| | 5 | c | **T18** | Frozen pastry | 3,95 | 2,88 | / | 3,42 | -1,07 | |
| | 5 | c | **T20** | Iced nougat | 4,04 | 2,34 | / | 3,19 | -1,70 | |
| < or > the quantification limit | 2 | c | 4138 | Dairy based dessert | 1,60 | 0,00 | <1,00 | 0,80 | -1,60 | |
| | 5 | a | **T92** | Custard | 1,85 | 0,00 | <1,00 | 0,93 | -1,85 | |
| | 5 | a | **T97** | Egg cream | 1,24 | 0,00 | <1,00 | 0,62 | -1,24 | |
| | 6 | b | 3835 | Sausages for dogs | 1,45 | 0,15 | <1,15 | 0,80 | -1,30 | |

After 72 h incubation time, the samples concerned by higher enumeration using the alternative method concerns shellfish. One hypothesis could be the fact that the microbial flora contained in those samples is more sensitive to heat than microflora from other categories or types. The **3M™ Petrifilm™ Aerobic Count Plate** uses a cold-water soluble gelling agent while the ISO 4833-1 method uses a melted media maintained at 44-47°C before pouring in the plates, which can have an injury effect on this type of microflora.

### *3.1.1.5 Discordant results*

The number of samples below or above the 95% confidence limits is given in Table 7.

**Table 7 - Classification of the samples**

| | | Number of samples | |
|---|---|---|---|
| | | 48 h | 72 h |
| Interpretable results by both methods | < LCL | 5 | 10 |
| | > UCL | 1 | 5 |
| | Total | 6 | 15 |
| < or > the quantification limit | < LCL | 1 | 4 |
| | > UCL | 1 | 0 |
| | Total | 2 | 4 |
| Total < LCL | | 6 | 14 |
| Total >UCL | | 2 | 5 |

The number of samples below the LCL is higher than the number of samples above the UCL but note that similar results were observed for both incubation times. The samples concerned by lower enumeration are distributed over different categories and not specific to one category.

#### *3.1.1.6 Conclusion*

**The relative trueness study of the alternative method is satisfying for both incubation times, i.e. 48 h and 72 h.**

### *3.1.2 Accuracy profile study*

*The accuracy profile is a graphical representation of the capacity of measurement of the quantitative method, obtained by combining acceptability intervals and β-expectation tolerance intervals, both reported to different levels of the reference value.*

#### *3.1.2.1 Matrices*

Seven matrix/strain pairs were tested. A minimum of one type per category and two different batches were selected, using six samples per type. Two samples were contaminated at a low level, two at intermediate level, and two at a high level. For each sample, five replicates (five different test portions) were tested. In the end, thirty samples were tested per matrix type.

The tested categories, types, matrix and inoculated strains are provided in Table 8.

**Table 8 - Categories, types and matrices**

| Category | | Matrix | Inoculated strain | Origin | Inoculation level (CFU/g) |
|---|---|---|---|---|---|
| 1 | Meat products | Pork pâté | *Enterobacter agglomerans* 135 | Pork liver | 300<br>10 000<br>100 000 |
| 2 | Dairy products | Pasteurized milk | *Staphylococcus aureus* 501 | Raw milk | |
| 3 | Seafood products | Ready to eat mackerel | *Listeria monocytogenes* Ad2599 | Salmon | |
| 4 | Fruits and vegetables | Deli salad | *Enterococcus gallinarum* Ad1145 | Guacamole | |
| 5 | Egg products and egg-based products | Whole liquid egg | *Serratia liquefaciens* 26 | Egg product | |
| 6 | Pet food | Pâté for cat | *Citrobacter braakii* Ad833 | Beef meat | |
| 7 | Environmental samples | Process water | *Escherichia coli* 93 | Ready to eat dish | |

#### *3.1.2.2 Calculation and interpretation*

The raw data are provided in **Appendix 6**. The summary tables (in log CFU/g) and calculations are provided in **Appendix 7**. The statistical results and the

accuracy profiles are provided Figures 10 (48 h incubation time) and 11 (72 h incubation time).

The calculations were done using the AP Calculation Tool MCS (Clause 6-1-3-3 calculation and interpretation of accuracy profile study) ver 31-07-2018 available on http://standards.iso.org/iso/16140

- **48 h incubation time**

The lower and upper β.ETI are within the acceptability limits for all the matrix/strain pairs tested.

- **72 h incubation time**

The lower and upper β.ETI are within the acceptability limits for all the matrix/strain pairs tested, except for one batch of pasteurized milk for the low inoculation level (upper β.ETI = 0.601).

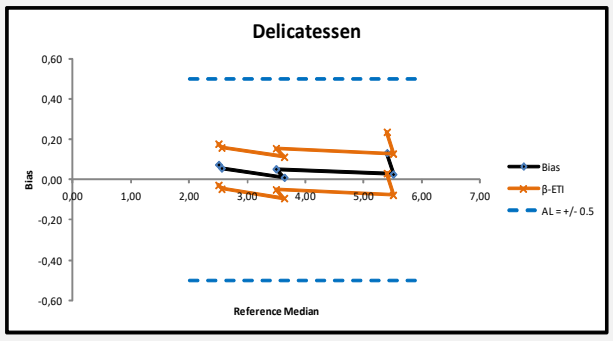
For the pasteurized milk, the upper limit of the test is higher than the acceptability limit, but in the case of the comparison of 2 methods of aerobic microflora enumeration by colony count, higher data demonstrate a better recovery of the microflora in those conditions

#### *3.1.2.3 Conclusion*

**The observed profiles are comprised within the AL., or in the case of pasteurized milk show better recovery in one condition. All the accuracy profiles fulfill the performance criteria.**

## Figure 10 – Accuracy profile - Incubation time: 48 h

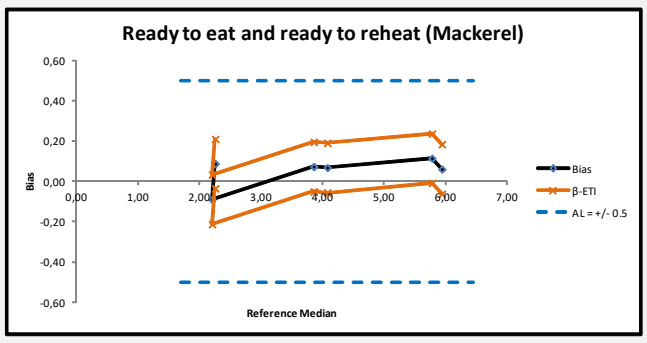
| (Food) Category | Meat products |
|---|---|
| (Food) Type | Delicatessen |




| Sample Name | Reference central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6862-6866 | 2,51 | 0,075 | -0,028 | 0,177 | YES | YES |
| 6867-6871 | 2,56 | 0,056 | -0,046 | 0,159 | YES | YES |
| 4823-4827 | 3,63 | 0,010 | -0,093 | 0,112 | YES | YES |
| 4848-4852 | 3,49 | 0,053 | -0,050 | 0,155 | YES | YES |
| 4833-4837 | 5,51 | 0,026 | -0,076 | 0,129 | YES | YES |
| 4858-4862 | 5,40 | 0,134 | 0,031 | 0,236 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,084 | 0,071 | YES | +/- 0,500 |

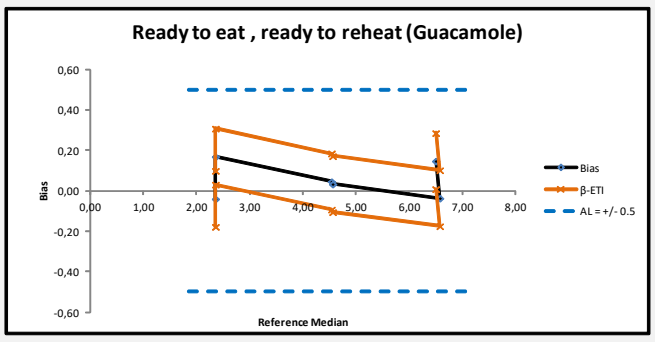
| (Food) Category | Seafood products |
|---|---|
| (Food) Type | Ready to eat and ready to |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 4212-4216 | 2,26 | 0,087 | -0,036 | 0,210 | YES | YES |
| 4227-4231 | 2,20 | -0,090 | -0,213 | 0,033 | YES | YES |
| 4217-4221 | 3,86 | 0,072 | -0,051 | 0,195 | YES | YES |
| 4232-4236 | 4,08 | 0,067 | -0,056 | 0,190 | YES | YES |
| 4222-4226 | 5,78 | 0,114 | -0,009 | 0,237 | YES | YES |
| 4237-4241 | 5,94 | 0,060 | -0,062 | 0,183 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,065 | 0,085 | YES | +/- 0,500 |

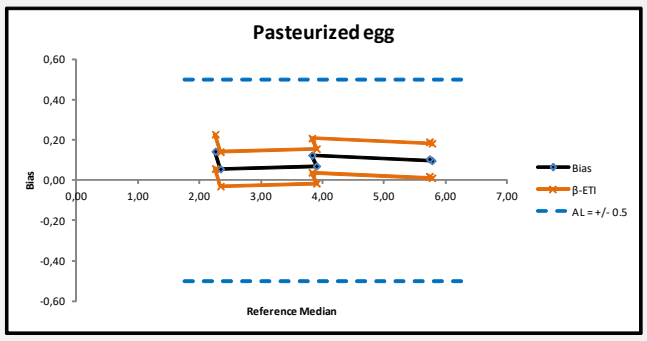
| (Food) Category | Vegetables |
|---|---|
| (Food) Type | Ready to eat , ready to reheat |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6872-6876 | 2,36 | -0,040 | -0,178 | 0,099 | YES | YES |
| 6877-6881 | 2,36 | 0,170 | 0,031 | 0,308 | YES | YES |
| 4387-4391 | 4,54 | 0,047 | -0,092 | 0,186 | YES | YES |
| 4402-4406 | 4,57 | 0,034 | -0,105 | 0,172 | YES | YES |
| 4392-4396 | 6,58 | -0,036 | -0,174 | 0,103 | YES | YES |
| 4407-4411 | 6,51 | 0,148 | 0,009 | 0,287 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,092 | 0,096 | YES | +/- 0,500 |

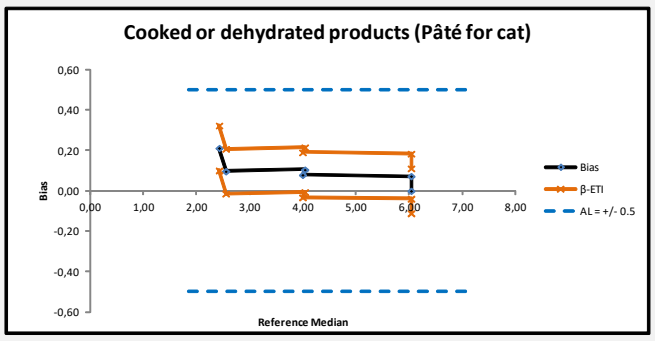
| (Food) Category | Egg based products |
|---|---|
| (Food) Type | Pasteurized egg |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6428-6432 | 2,26 | 0,143 | 0,057 | 0,228 | YES | YES |
| 6857-6861 | 2,34 | 0,056 | -0,030 | 0,141 | YES | YES |
| 5098-5102 | 3,90 | 0,070 | -0,015 | 0,155 | YES | YES |
| 5123-5127 | 3,83 | 0,123 | 0,038 | 0,208 | YES | YES |
| 5108-5112 | 5,78 | 0,097 | 0,012 | 0,182 | YES | YES |
| 5133-5137 | 5,74 | 0,105 | 0,020 | 0,190 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,078 | 0,059 | YES | +/- 0,500 |

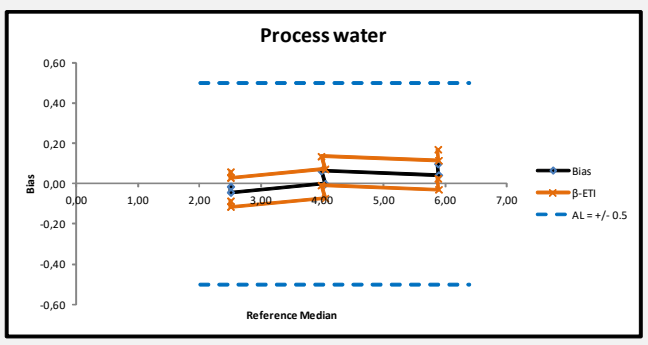
| (Food) Category | Feed |
|---|---|
| (Food) Type | Cooked or dehydrated products |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 4758-4762 | 2,43 | 0,212 | 0,101 | 0,323 | YES | YES |
| 4783-4787 | 2,56 | 0,097 | -0,014 | 0,208 | YES | YES |
| 4768-4772 | 4,04 | 0,105 | -0,006 | 0,216 | YES | YES |
| 4793-4797 | 4,00 | 0,079 | -0,032 | 0,190 | YES | YES |
| 4778-4782 | 6,04 | 0,073 | -0,039 | 0,184 | YES | YES |
| 4803-4807 | 6,04 | 0,000 | -0,111 | 0,111 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,070 | 0,077 | YES | +/- 0,500 |

| (Food) Category | Environmental samples |
|---|---|
| (Food) Type | Process water |

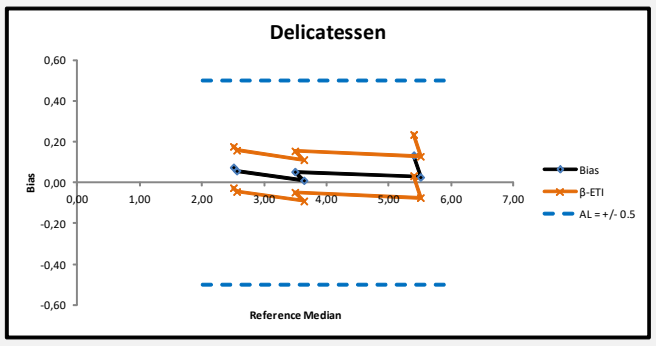



| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 5183-5187 | 2,51 | -0,014 | -0,086 | 0,058 | YES | YES |
| 5208-5212 | 2,51 | -0,043 | -0,115 | 0,029 | YES | YES |
| 5193-5197 | 4,04 | 0,000 | -0,072 | 0,072 | YES | YES |
| 5218-5222 | 3,98 | 0,064 | -0,009 | 0,136 | YES | YES |
| 5203-5207 | 5,89 | 0,043 | -0,029 | 0,115 | YES | YES |
| 5228-5232 | 5,88 | 0,098 | 0,026 | 0,170 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,133 | 0,050 | NO | +/- 0,500 |

# Figure 11 – Accuracy profile - Incubation time: 72 h

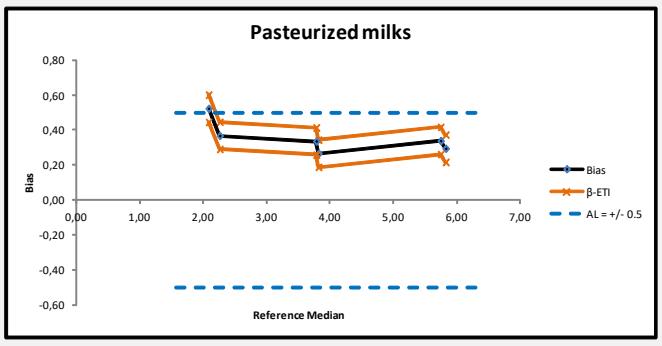
| (Food) Category | Meat products |
|---|---|
| (Food) Type | Delicatessen |




| Sample Name | Reference central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6862-6866 | 2,51 | 0,075 | -0,026 | 0,176 | YES | YES |
| 6867-6871 | 2,56 | 0,056 | -0,045 | 0,158 | YES | YES |
| 4823-4827 | 3,63 | 0,010 | -0,091 | 0,111 | YES | YES |
| 4848-4852 | 3,49 | 0,053 | -0,048 | 0,154 | YES | YES |
| 4833-4837 | 5,51 | 0,026 | -0,075 | 0,127 | YES | YES |
| 4858-4862 | 5,40 | 0,134 | 0,032 | 0,235 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,084 | 0,070 | YES | +/- 0,500 |

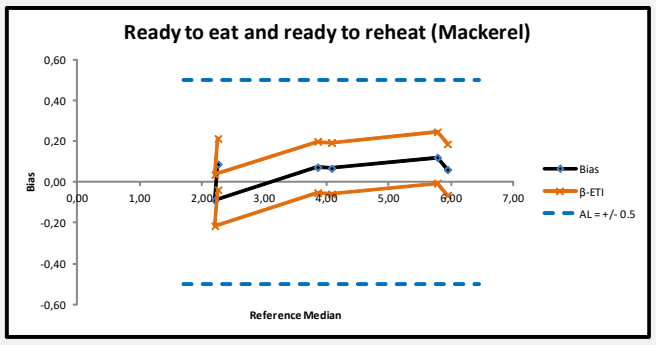
| (Food) Category | Dairy products |
|---|---|
| (Food) Type | Pasteurized milks |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 4975-4979 | 2,08 | 0,523 | 0,445 | 0,601 | NO | NO |
| 4990-4994 | 2,26 | 0,368 | 0,290 | 0,446 | YES | YES |
| 4980-4984 | 3,78 | 0,336 | 0,258 | 0,414 | YES | YES |
| 4995-4999 | 3,81 | 0,266 | 0,188 | 0,344 | YES | YES |
| 4985-4989 | 5,74 | 0,339 | 0,261 | 0,417 | YES | YES |
| 5000-5004 | 5,82 | 0,294 | 0,216 | 0,372 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,122 | 0,054 | YES | +/- 0,500 |

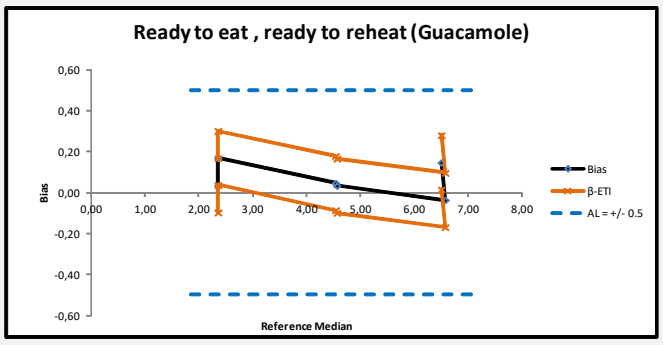
| (Food) Category | Seafood products |
|---|---|
| (Food) Type | Ready to eat and ready to |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 4212-4216 | 2,26 | 0,087 | -0,038 | 0,213 | YES | YES |
| 4227-4231 | 2,20 | -0,090 | -0,216 | 0,035 | YES | YES |
| 4217-4221 | 3,86 | 0,072 | -0,054 | 0,198 | YES | YES |
| 4232-4236 | 4,08 | 0,067 | -0,059 | 0,193 | YES | YES |
| 4222-4226 | 5,78 | 0,119 | -0,006 | 0,245 | YES | YES |
| 4237-4241 | 5,94 | 0,060 | -0,065 | 0,186 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,065 | 0,087 | YES | +/- 0,500 |

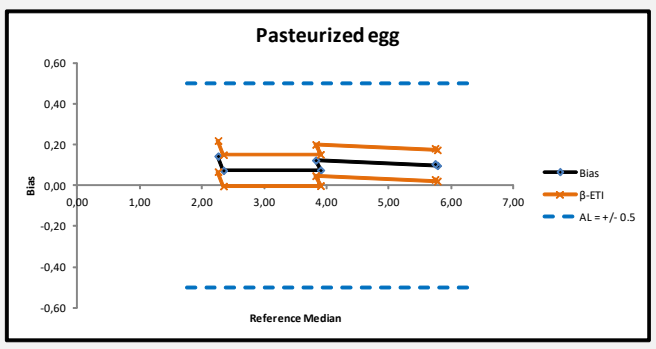
| (Food) Category | Vegetables |
|---|---|
| (Food) Type | Ready to eat , ready to reheat |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6872-6876 | 2,36 | 0,036 | -0,097 | 0,169 | YES | YES |
| 6877-6881 | 2,36 | 0,170 | 0,037 | 0,303 | YES | YES |
| 4387-4391 | 4,54 | 0,047 | -0,086 | 0,180 | YES | YES |
| 4402-4406 | 4,57 | 0,034 | -0,099 | 0,167 | YES | YES |
| 4392-4396 | 6,58 | -0,036 | -0,169 | 0,097 | YES | YES |
| 4407-4411 | 6,51 | 0,148 | 0,015 | 0,281 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,092 | 0,092 | YES | +/- 0,500 |

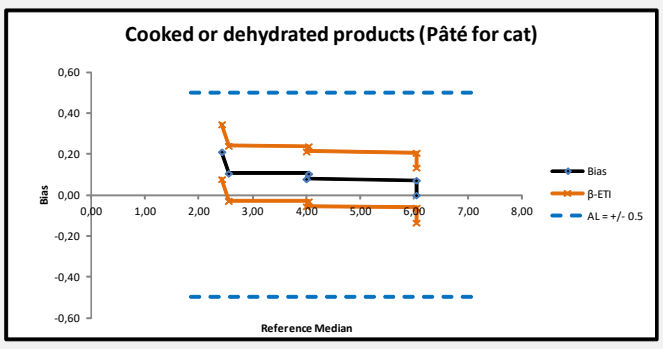
| (Food) Category | Egg based products |
|---|---|
| (Food) Type | Pasteurized egg |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 6428-6432 | 2,26 | 0,143 | 0,066 | 0,219 | YES | YES |
| 6857-6861 | 2,34 | 0,073 | -0,004 | 0,149 | YES | YES |
| 5098-5102 | 3,90 | 0,075 | -0,002 | 0,151 | YES | YES |
| 5123-5127 | 3,83 | 0,123 | 0,047 | 0,200 | YES | YES |
| 5108-5112 | 5,78 | 0,097 | 0,020 | 0,173 | YES | YES |
| 5133-5137 | 5,74 | 0,105 | 0,028 | 0,181 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,078 | 0,053 | YES | +/- 0,500 |

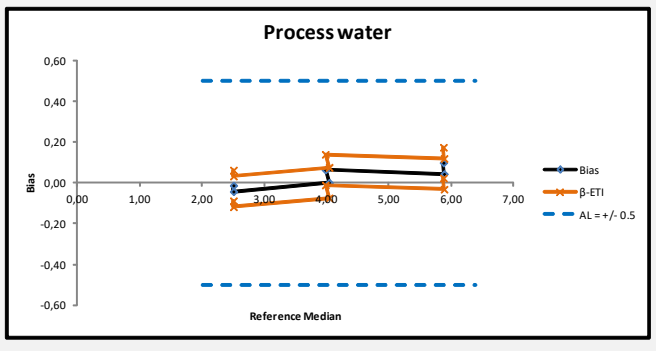
| (Food) Category | Feed |
|---|---|
| (Food) Type | Cooked or dehydrated products |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 4758-4762 | 2,43 | 0,212 | 0,078 | 0,346 | YES | YES |
| 4783-4787 | 2,56 | 0,106 | -0,028 | 0,241 | YES | YES |
| 4768-4772 | 4,04 | 0,105 | -0,030 | 0,239 | YES | YES |
| 4793-4797 | 4,00 | 0,079 | -0,055 | 0,213 | YES | YES |
| 4778-4782 | 6,04 | 0,073 | -0,062 | 0,207 | YES | YES |
| 4803-4807 | 6,04 | 0,000 | -0,134 | 0,134 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,070 | 0,093 | YES | +/- 0,500 |

| (Food) Category | Environmental samples |
|---|---|
| (Food) Type | Process water |




| Sample Name | Reference Central value | Bias | Lower β-ETI | Upper β-ETI | β-ETI compared to AL=±0.5 Acceptable | β-ETI compared to final AL Acceptable |
|---|---|---|---|---|---|---|
| 5183-5187 | 2,51 | -0,014 | -0,089 | 0,061 | YES | YES |
| 5208-5212 | 2,51 | -0,043 | -0,118 | 0,032 | YES | YES |
| 5193-5197 | 4,04 | 0,000 | -0,075 | 0,075 | YES | YES |
| 5218-5222 | 3,98 | 0,064 | -0,011 | 0,139 | YES | YES |
| 5203-5207 | 5,89 | 0,043 | -0,032 | 0,118 | YES | YES |
| 5228-5232 | 5,88 | 0,098 | 0,023 | 0,173 | YES | YES |

| | Reference method | Alternative method | SD repeatability of reference method <= 0.125 | Final AL |
|---|---|---|---|---|
| SD Repeatability | 0,133 | 0,052 | NO | +/- 0,500 |

### 3.1.3 Practicability

The alternative method practicability was evaluated according to the AFNOR criteria.

| Criteria to be control | Communication on criteria | Expert lab checking procedure |
|---|---|---|
| **Storage conditions** | Store the unopened 3M Petrifilm AC Plate pouches at frozen or refrigerated temperature less than or equal to 8°C (46°F) | Mentioned on the instruction for use |
| **Shelf-life and modalities of utilization after first use** | Store resealed pouches in a cool dry place for no longer than four weeks | Mentioned in the kit insert |
| **Time to result** | 48 h ± 3 h or 72 h ± 3 h | Mentioned in the kit insert |
| **Common step with the reference method** | | Initial suspensions and dilutions |

### 3.1.4 Method comparison study conclusion

**The observed data and interpretation confirm the performances of the alternative method:**

- **314 samples were tested in the relative trueness study providing 110 interpretable results for 48 h incubation time and 285 interpretable results for 72 h incubation time,** which clearly satisfied the required criteria for quantitative method comparison according to the ISO 16140-2;

- **The observed profiles are comprised within the AL actually set at 0.5 Log CFU/g in the EN ISO 16140-2:2016 for all the matrices at both incubation times except for one batch of pasteurized milk at the lower inoculation level ( Upper β ETI = 0.601 ). This last result demonstrates a better recovery of the alternative method.**

## 3.2 Inter-Laboratory study

***The inter-laboratory 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.***

### *3.2.1 Study organization*

- *Collaborators number*

The study was run in 2001. Samples were sent to 15 laboratories.

- *Matrix and strain used*

Raw milk was used for the study. In order to have different levels of mesophilic aerobic flora, the raw milk was diluted in pasteurized milk. As decided during the meeting of the AFNOR Technical Committee (23/03/2001), the samples were frozen at - 18°C for expedition.

- *Samples*

Samples were prepared and inoculated on Monday 11 June 2001, as described below:

- 8 samples for enumeration by both methods;
- 1 water flask labelled “Temperature Control” with a temperature probe.

- *Inoculation*

The targeted inoculation levels were the following: $10^3$ CFU/ml; $10^4$ CFU/ml; $10^5$ CFU/ml and $10^5$ CFU/ml.

- *Labelling and shipping*

Blind coded samples were placed in isothermal boxes, which contained dry ice, and express-shipped to the different laboratories.

Samples were shipped in 24 h to the involved laboratories. The samples were stored at - 20°C by the collaborators until starting the analyses.

- *Analyses*

Collaborative study laboratories and the expert laboratory carried out the analyses at Day 2 with the alternative and reference methods. The 3M Petrifilm tests were incubated for 72 h at 30°C ± 1°C.

### *3.2.2 Experimental parameters controls*

#### *3.2.2.1 Logistic conditions*

All the collaborators received their samples frozen, except Lab H which received its package at Day 2. This Lab did not run the analyses.

### *3.2.3 Analysis results*

The raw data are given in **Appendix 8**.

#### *3.2.3.1 Results obtained by the expert Lab.*

The results obtained by the expert Lab. are the following (See Table 9).

**Table 9 – Results obtained by the expert Lab.**

| Level | Reference method | Alternative method |
|---|---|---|
| L1 | 3.26<br>3.32 | 3.20<br>3.38 |
| L2 | 3.94<br>4.15 | 4.36<br>4.51 |
| L3 | 5.08<br>5.08 | 5.28<br>5.38 |
| L4 | 6.15<br>6.18 | 6.38<br>6.56 |

#### *3.2.3.2 Results obtained by the collaborators*

A summary of the test results is given in Table 10 (CFU/ml) and Table 11 (log CFU/ml).

## Table 10 - Summary of data (CFU/ml)

| Collaborators | Level 1 | | | | Level 2 | | | | Level 3 | | | | Level 4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reference method | | Alternative method | | Reference method | | Alternative method | | Reference method | | Alternative method | | Reference method | | Alternative method | |
| A | 660 | 590 | 1600 | 1400 | 3900 | 2800 | 23000 | 16000 | 17000 | 26000 | 170000 | 230000 | 530000 | 820000 | 2200000 | 1900000 |
| B | 1700 | 790 | 2200 | 2000 | 8000 | 7400 | 24000 | 39000 | 93000 | 91000 | 250000 | 200000 | 1700000 | 1300000 | 3000000 | 2700000 |
| C | 1400 | 1500 | 1300 | 1700 | 8300 | 8900 | 24000 | 25000 | 77000 | 58000 | 230000 | 220000 | 1400000 | 2000000 | 2900000 | 4000000 |
| D | 900 | 800 | 1000 | 980 | 5200 | 5800 | 17000 | 6800 | 60000 | 65000 | 170000 | 180000 | 2600000 | 1600000 | 3200000 | 2100000 |
| E | 1400 | 1300 | 1900 | 2500 | 12000 | 11000 | 15000 | 14000 | 120000 | 110000 | 230000 | 210000 | 1500000 | 1400000 | 2300000 | 1700000 |
| F | 810 | 820 | 4200 | 4100 | 7800 | 5900 | 41000 | 46000 | 69000 | 62000 | 280000 | 320000 | 900000 | 1200000 | 4100000 | 3600000 |
| G | 1800 | 2000 | 3300 | 1600 | 20000 | 14000 | 44000 | 37000 | 160000 | 260000 | 420000 | 450000 | 2800000 | 2500000 | 3400000 | 2800000 |
| I | 7700 | 1700 | 12000 | 4500 | 12000 | 7100 | 25000 | 18000 | 100000 | 62000 | 250000 | 170000 | 1800000 | 1700000 | 3800000 | 2100000 |
| J | 1100 | 1000 | 1600 | 1500 | 11000 | 19000 | 56000 | 49000 | 110000 | 72000 | 590000 | 470000 | 4400000 | 5000000 | 1400000 | 1200000 |
| K | 280 | 500 | 1600 | 1800 | 7000 | 7500 | 20000 | 14000 | 35000 | 56000 | 180000 | 170000 | 7900000 | 8800000 | 3400000 | 2300000 |
| L | 1200 | 1400 | 1800 | 1800 | 18000 | 21000 | 44000 | 43000 | 150000 | 130000 | 350000 | 310000 | 2100000 | 2100000 | 4000000 | 3500000 |
| M | 1900 | 2700 | 4400 | 4700 | 4400 | 59000 | 14000 | 51000 | 200000 | 47000 | 470000 | 190000 | 790000 | 2000000 | 3100000 | 5000000 |
| N | 1500 | 1600 | 1500 | 2300 | 12000 | 14000 | 18000 | 13000 | 89000 | 110000 | 110000 | 200000 | 890000 | 850000 | 1400000 | 1600000 |
| O | 2900 | 2800 | 4500 | 5700 | 25000 | 27000 | 76000 | 76000 | 150000 | 140000 | 350000 | 460000 | 2300000 | 3600000 | 5100000 | 5400000 |

## Table 11 - Summary of data (log CFU/ml)

| Collaborators | Level 1 | | | | Level 2 | | | | Level 3 | | | | Level 4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reference method | | Alternative method | | Reference method | | Alternative method | | Reference method | | Alternative method | | Reference method | | Alternative method | |
| A | 2,820 | 2,771 | 3,204 | 3,146 | 3,591 | 3,447 | 4,362 | 4,204 | 4,230 | 4,415 | 5,230 | 5,362 | 5,724 | 5,914 | 6,342 | 6,279 |
| B | 3,230 | 2,898 | 3,342 | 3,301 | 3,903 | 3,869 | 4,380 | 4,591 | 4,968 | 4,959 | 5,398 | 5,301 | 6,230 | 6,114 | 6,477 | 6,431 |
| C | 3,146 | 3,176 | 3,114 | 3,230 | 3,919 | 3,949 | 4,380 | 4,398 | 4,886 | 4,763 | 5,362 | 5,342 | 6,146 | 6,301 | 6,462 | 6,602 |
| D | 2,954 | 2,903 | 3,000 | 2,991 | 3,716 | 3,763 | 4,230 | 3,833 | 4,778 | 4,813 | 5,230 | 5,255 | 6,415 | 6,204 | 6,505 | 6,322 |
| E | 3,146 | 3,114 | 3,279 | 3,398 | 4,079 | 4,041 | 4,176 | 4,146 | 5,079 | 5,041 | 5,362 | 5,322 | 6,176 | 6,146 | 6,362 | 6,230 |
| F | 2,908 | 2,914 | 3,623 | 3,613 | 3,892 | 3,771 | 4,613 | 4,663 | 4,839 | 4,792 | 5,447 | 5,505 | 5,954 | 6,079 | 6,613 | 6,556 |
| G | 3,255 | 3,301 | 3,519 | 3,204 | 4,301 | 4,146 | 4,643 | 4,568 | 5,204 | 5,415 | 5,623 | 5,653 | 6,447 | 6,398 | 6,531 | 6,447 |
| I | 3,886 | 3,230 | 4,079 | 3,653 | 4,079 | 3,851 | 4,398 | 4,255 | 5,000 | 4,792 | 5,398 | 5,230 | 6,255 | 6,230 | 6,580 | 6,322 |
| J | 3,041 | 3,000 | 3,204 | 3,176 | 4,041 | 4,279 | 4,748 | 4,690 | 5,041 | 4,857 | 5,771 | 5,672 | 6,643 | 6,699 | 6,146 | 6,079 |
| K | 2,447 | 2,699 | 3,204 | 3,255 | 3,845 | 3,875 | 4,301 | 4,146 | 4,544 | 4,748 | 5,255 | 5,230 | 6,898 | 6,944 | 6,531 | 6,362 |
| L | 3,079 | 3,146 | 3,255 | 3,255 | 4,255 | 4,322 | 4,643 | 4,633 | 5,176 | 5,114 | 5,544 | 5,491 | 6,322 | 6,322 | 6,602 | 6,544 |
| M | 3,279 | 3,431 | 3,643 | 3,672 | 3,643 | 4,771 | 4,146 | 4,708 | 5,301 | 4,672 | 5,672 | 5,279 | 5,898 | 6,301 | 6,491 | 6,699 |
| N | 3,176 | 3,204 | 3,176 | 3,362 | 4,079 | 4,146 | 4,255 | 4,114 | 4,949 | 5,041 | 5,041 | 5,301 | 5,949 | 5,929 | 6,146 | 6,204 |
| O | 3,462 | 3,447 | 3,653 | 3,756 | 4,398 | 4,431 | 4,881 | 4,881 | 5,176 | 5,146 | 5,544 | 5,663 | 6,362 | 6,556 | 6,708 | 6,732 |

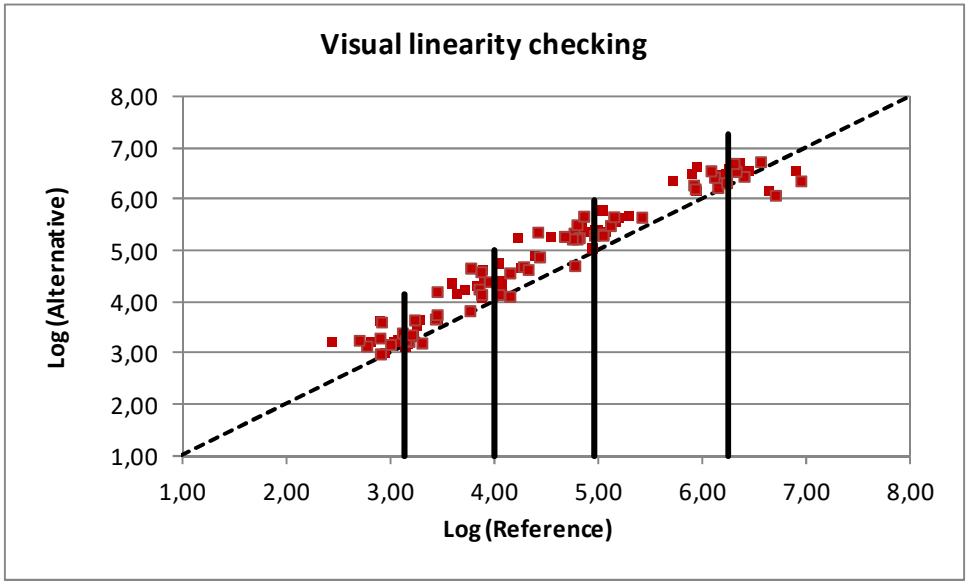
### 3.2.4 Calculations and interpretation

#### 3.2.4.1 Visual linearity checking

The figure 12 shows the data points after $log_{10}$ transformation. The visual inspection shows that the alternative method gives results, which are proportional to those of the reference method.

Higher enumeration values were observed with the 3M Petrifilm Aerobic Count Plate. This could be explained by the fact that frozen samples were used and the strains were probably submitted to an additional injury when adding the PCA media for the ISO 4833-1 method enumeration.

**Figure 12 - Visual linearity checking**




#### 3.2.4.2 Accuracy profile calculation

The calculations were done using the AP Calculation Tool MCS (Clause 6-1-3-3 calculation and interpretation of accuracy profile study) ver 31-07-2018 available on http://standards.iso.org/iso/16140
A summary of the statistical test is provided in Table 12.

## Table 12 - Summary of statistical tests

| | | | |
|---|---|---|---|
| **Accuracy profile** | | | |
| **Study Name** | 3M Petrifilm Aerobic Count Plate | | |
| **Date** | | | |
| **Coordinator** | | | |
| **Tolerance probability (beta)** | 80% | 80% | 80% |
| **Acceptability limit in log (lambda)** | 0,96 | 0,96 | 0,96 |

VRAI

Application of clause 6.2.3
Step 8: If any of the values for the β-ETI fall outside the acceptability limits, calculate the pooled average reproducibility standard deviation of the reference method.
Step 9: Calculate new acceptability limits as a function of this standard deviation.

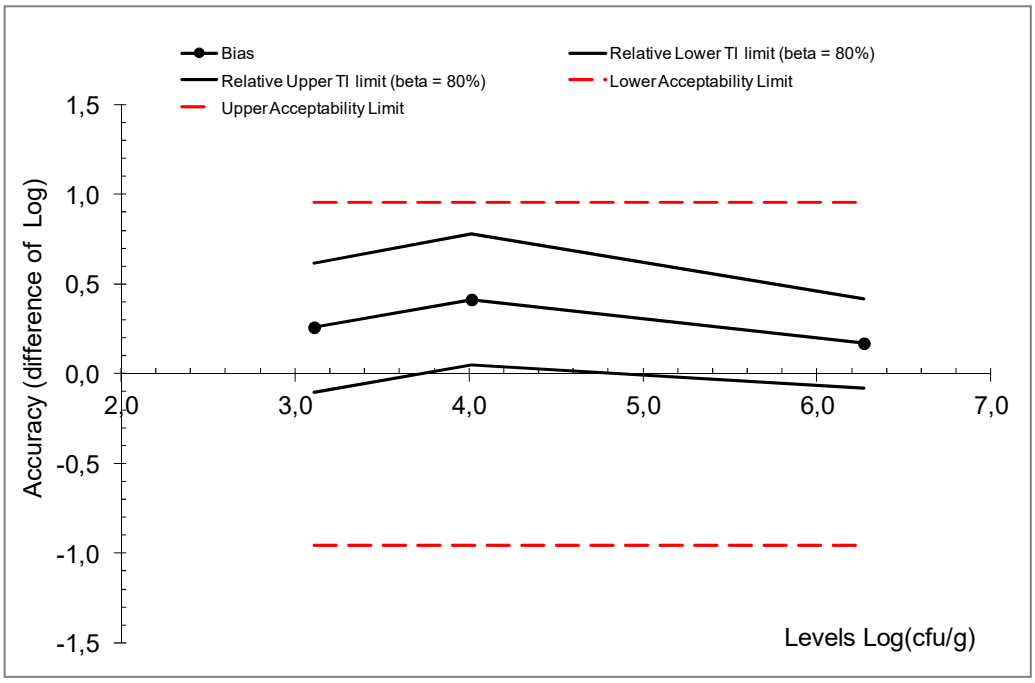
| | **Alternative method** | | | **Reference method** | | |
|---|---|---|---|---|---|---|
| **Levels** | **Low** | **Medium** | **High** | **Low** | **Medium** | **High** |
| **Target value** | **3,110** | **4,015** | **6,270** | | | |
| Number of participants (K) | 14 | 14 | 14 | 14 | 14 | 14 |
| Average for alternative method | 3,368 | 4,428 | 6,440 | 3,110 | 4,015 | 6,270 |
| Repeatability standard deviation (sr) | 0,114 | 0,149 | 0,092 | 0,152 | 0,228 | 0,111 |
| Between-labs standard deviation (sL) | 0,234 | 0,220 | 0,155 | 0,238 | 0,179 | 0,277 |
| Reproducibility standard deviation (sR) | 0,261 | 0,266 | 0,180 | 0,282 | 0,290 | 0,298 |
| Corrected number of dof | 15,723 | 17,708 | 16,826 | 17,293 | 22,989 | 14,919 |
| Coverage factor | 1,380 | 1,371 | 1,375 | | | |
| Interpolated Student t | 1,338 | 1,331 | 1,334 | | | |
| Tolerance interval standard deviation | 0,2689 | 0,2738 | 0,1859 | | | |
| Lower TI limit | 3,009 | 4,064 | 6,192 | | | |
| Upper TI limit | 3,728 | 4,793 | 6,688 | | | |
| **Bias** | **0,259** | **0,414** | **0,170** | | | |
| **Relative Lower TI limit (beta = 80%)** | **-0,101** | **0,049** | **-0,078** | FAUX | | |
| **Relative Upper TI limit (beta = 80%)** | **0,618** | **0,778** | **0,418** | VRAI | | |
| **Lower Acceptability Limit** | **-0,96** | **-0,96** | **-0,96** | | | |
| **Upper Acceptability Limit** | **0,96** | **0,96** | **0,96** | | | |
| **New acceptability limits may be based on reference method pooled variance** | | | | | | |
| Pooled repro standard dev of reference | 0,290 | | | | | |

As the Excel spreadsheet is intended for 3 inoculation levels only, the levels 1, 2 and 4 were used for interpretation.

The relative Upper limit (β = 80 %) is above the acceptability limit (AL) fixed at 0.500 for 2 lowest inoculation levels (β.ETI = 0.618; 0.778). As the values for the β.ETI fall outside the acceptability limit, the pooled average reproducibility standard deviation of the reference method is calculated. The new acceptability limit is calculated as a function of this standard deviation ALs = 3.33 Rref. The lower AL is then fixed at - 0.96 log and the upper AL at 0.96 log.

These values are collected in a graphical representation together with the acceptability limits (AL). This representation is given Figure 13.

**Figure 13 - Accuracy profile**




It is observed that for all the levels, the tolerance interval limits of the alternative method are within the acceptable limits of ± 0,96 log.

### *3.2.4.3 Conclusion*

**The alternative method is equivalent to the reference method.**

## 3.3 General conclusion

The **method comparison study conclusions** are:

**The observed data and interpretation confirm the performances of the alternative method:**

- **314 samples were tested in the relative trueness study providing 110 interpretable results for 48 h incubation time and 285 interpretable results for 72 h incubation time,** which clearly satisfied the required criteria for quantitative method comparison according to the ISO 16140-2;

- **The observed profiles are comprised within the AL actually set at 0.5 Log CFU/g in the EN ISO 16140-2:2016 for all the matrices at both incubation times except for one batch of pasteurized milk at the lower inoculation level Upper β ETI = 0.601 (72 h incubation time).**

The **inter-laboratory study conclusions** are:

The quality assurance parameters were verified (*i.e.* inoculation, targeted levels, logistic conditions, analyses), confirming that the inter-laboratory study was conducted in appropriate conditions.

**The data interpretations were done according to the EN ISO 16140-2:2016**. For the three contamination levels, the alternative method is accepted as equivalent to the reference method.

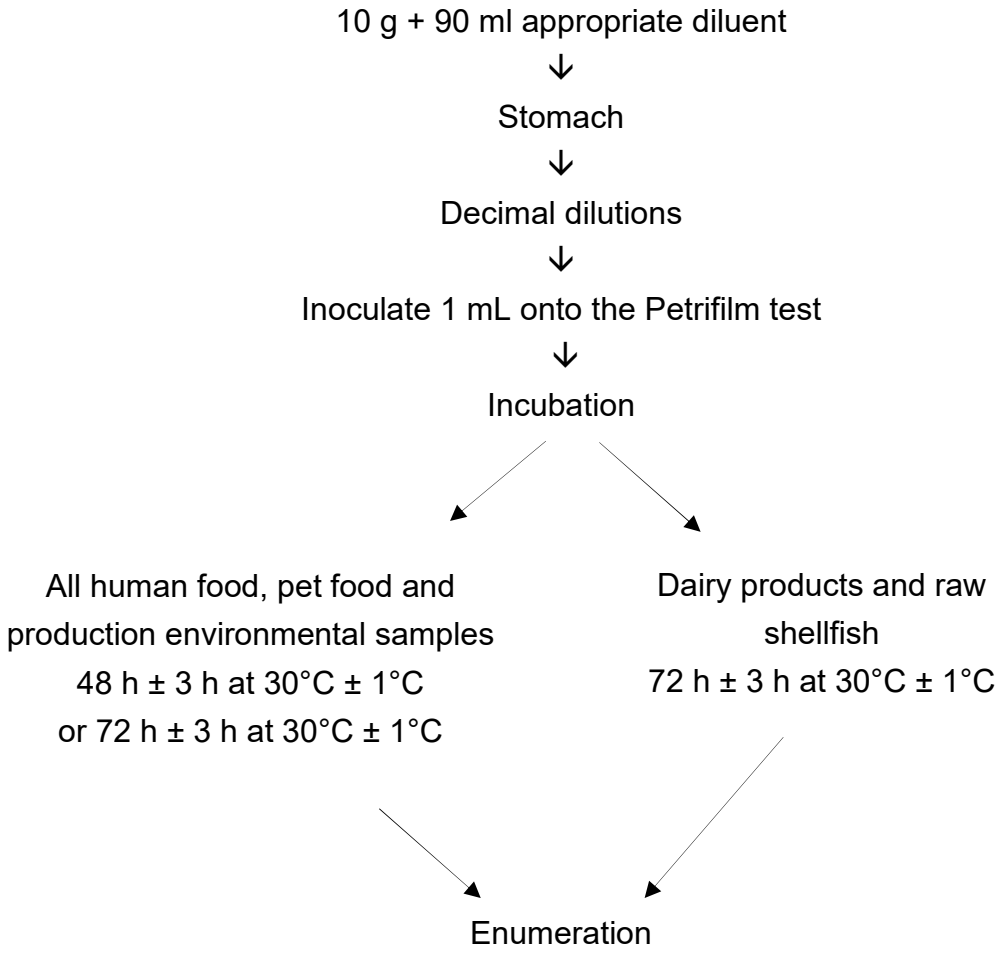
**Based on the results obtained for the method comparison study and the inter-laboratory study, the 3M™ Petrifilm™ Aerobic Count Plate is considered equivalent to the reference method.**

Quimper, 22 September 2021

Maryse RANNOU
Project Manager
Validation of Alternative methods
*Food Safety & Quality*

I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

## Appendix 1 - Flow diagram of the alternative method 3M™ Petrifilm™ Aerobic Count Plate



## Appendix 2 – Flow diagram of the reference method ISO 4833-1:2013 - Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique

10 g + 90 ml appropriate diluant
↓
Stomach
↓
Decimal dilutions
↓
Inoculate 1 ml in 1 plate per dilution
↓
Add PCA (+ 1 g/l skim milk for dairy products)
↓
Incubation at 30°C ± 1°C for 72 h ± 3 h
↓
Enumeration

## Appendix 3 – Artificial contaminations of samples

| Date of analysis | Sample number | Product (French name) | Product | Artificial contaminations | | | |
|---|---|---|---|---|---|---|---|
| | | | | Strain | Origin | Injury protocol | Injury measurement (log CFU) |
| 2017 | **6238** | **Cannelloni pur bœuf** | **RTRH beef** | *E. kobei* Ad342 | Ham | Seeding 48h 5°C | / |
| 2017 | **6242** | **Saucisson pour chien** | **Sausage for dog** | *E. kobei* Ad342 | Ham | Seeding 48h 5°C | / |
| 2017 | **6243** | **Eau de rinçage (industrie porc)** | **Rinsing water (pork industry)** | *H. alvei* 167 | Sausages | Seeding 48h 5°C | / |
| 2017 | **6905** | **Croquettes pour chat** | **Pellets for cats** | *C. freundii* Ad173 | Chicken liver | Spiking-HT 8 min 56°C | 1,07 |
| 2017 | **6906** | **Croquettes pour chien** | **Pellets for dogs** | *C. freundii* Ad173 | Chicken liver | Spiking-HT 8 min 56°C | 1,07 |

# Appendix 4 - Relative trueness study: raw data

♦ Analyses performed according to the COFRAC accreditation (ADRIA Développement, Expert laboratory)

Data not available

| MEAT PRODUCTS | | |

| MEAT PRODUCTS | | |

| MEAT PRODUCTS | | |

| MEAT PRODUCTS | | |

| DAIRY PRODUCTS | | |

## DAIRY PRODUCTS

| Date of analysis | Sample number | Product (French name) | Product | pH | | Reference method ISO 4833 | | | | | | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | | | | | | | | Category | type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | 48h at 30°C ± 1°C | | | | | | | | 72h at 30°C ± 1°C | | | | | | | | | |
| | | | | | | | cfu/plate | | | | cfu/g | | Log (cfu/g) | | | | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | | | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | | | |
| | | | | | | | rep 1 | | rep 2 | | | | | | | | rep 1 | rep 2 | | | | | | | rep 1 | rep 2 | | | | | | | |
| | | | | before | after | Dilution | a | b | a | b | rep 1 | rep 2 | rep 1 | rep 2 | Log (cfu/g) mean | Dilution | | | rep 1 | rep 2 | rep 1 | rep 2 | Log (cfu/g) mean | Dilution | | | rep 1 | rep 2 | rep 1 | rep 2 | Log (cfu/g) mean | | |
| 1998 | **T83** | Poudre de lait | Milk powder | | | | | | | | | | 2,64 | 2,78 | 2,71 | | | | | | | | | | | | | | 2,76 | 2,83 | 2,80 | 2 | b |
| 1998 | **T84** | Poudre de lait | Milk powder | | | | | | | | | | 3,48 | 3,49 | 3,49 | | | | | | | | | | | | | | 2,89 | 2,99 | 2,94 | 2 | b |
| 1998 | **T85** | Poudre de lait | Milk powder | | | | | | | | | | 3,33 | 3,36 | 3,34 | | | | | | | | | | | | | | 2,86 | 2,88 | 2,87 | 2 | b |
| 2017 | 4134 | Lait entier pasteurisé | Pasteurized milk | | | 10 | 0 | | | | <10 | / | <1,00 | | <1,00 | | | | | | | | | 10 | 0 | / | <10 | / | <1,00 | / | <1,00 | 2 | c |
| | | | | | | 100 | 0 | | | | | | | | | / | / | / | | | | | | 100 | 0 | / | | | | | | | |
| 2017 | 4135 | Crème glacée caramel | Ice cream | | | 100 | 89 | | | | 8700 | / | 3,94 | | 3,94 | | | | | | | | | 10 | 126 | / | 1700 | / | 3,23 | / | 3,23 | 2 | c |
| | | | | | | 1000 | 7 | | | | | | | | | / | / | / | | | | | | 100 | 59 | / | | | | | | | |
| 2017 | 4136 | Chou chantilly fraise | Pasty with wripped cream | | | 1000 | 52 | | | | 60000 | / | 4,78 | | 4,78 | | | | | | | | | 1000 | 39 | / | 38000 | / | 4,58 | / | 4,58 | 2 | c |
| | | | | | | 10000 | 14 | | | | | | | | | / | / | / | | | | | | 10000 | 3 | / | | | | | | | |
| 2017 | 4137 | Fromage frais au lait pasteurisé | Fresh cheese | | | 1000 | 36 | | | | 35000 | / | 4,54 | | 4,54 | | | | | | | | | 10000 | 140 | / | 1400000 | / | 6,15 | / | 6,15 | 2 | c |
| | | | | | | 10000 | 2 | | | | | | | | | 100000 | 12 | / | | | | | | 100000 | 12 | / | | | | | | | |
| 2017 | 4138 | Dessert lacté | Dairy based dessert | | | 10 | 4 | | | | 40 | / | 1,60 | | 1,60 Ne | | | | | | | | | 10 | 0 | / | <10 | / | <1,00 | / | <1,00 | 2 | c |
| | | | | | | 100 | 0 | | | | | | | | | / | / | / | | | | | | 100 | 0 | / | | | | | | | |
| 2017 | 4150 | Riz au lait | Rice pudding | | | 10 | 4 | | | | 40 | / | 1,60 | | 1,60 Ne | | | | | | | | | 10 | 2 | / | 20 | / | 1,30 | / | 1,30* | 2 | c |
| | | | | | | 100 | 0 | | | | | | | | | 100 | 0 | / | | | | | | 100 | 0 | / | | | | | | | |
| 2017 | 6807 | Lait pasteurisé | Pasteurized milk | 7,02 | / | 10 | 153 | | | | 1500 | | 3,18 | | 3,18 | | | | | | | | | 10 | 113 | | 1200 | | 3,08 | / | 3,08 | 2 | c |
| | | | | | | 100 | 9 | | | | | | | | | 100 | 5 | / | | | | | | 100 | 10 | | | | | | | | |
| 2017 | 6808 | Lait frais pasteurisé | Pasteurized milk | 7,04 | / | 10 | 0 | | | | <10 | | <1,00 | | <1,00 | | | | | | | | | 10 | 0 | | <10 | | <1,00 | / | <1,00 | 2 | c |
| | | | | | | 100 | 0 | | | | | | | | | 100 | 0 | / | | | | | | 100 | 0 | | | | | | | | |
| 2017 | 6809 | Chou chantilly | Dairy dessert | 7,04 | / | 100 | 89 | | | | 8800 | | 3,94 | | 3,94 | | | | | | | | | 100 | 43 | | 4000 | | 3,60 | / | 3,60 | 2 | c |
| | | | | | | 1000 | 8 | | | | | | | | | 1000 | 0 | / | | | | | | 1000 | 1 | | | | | | | | |

| SEAFOOD PRODUCTS | | |

♦ Analyses performed according to the COFRAC accreditation (ADRIA Developpement, Expert laboratory)

## FRUITS AND VEGETABLES

| Date of analysis | Sample number | Product (French name) | Product | pH | | Reference method ISO 4833 | | | | | | | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | | | | | | | | Category | type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | 48h at 30°C ± 1°C | | | | | | | | 72h at 30°C ± 1°C | | | | | | | | | |
| | | | | | | Dilution | cfu/plate | | | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | | |
| | | | | | | | rep 1 | | rep 2 | | | | | | | | rep 1 | rep 2 | | | | | | | | | | | | | | |
| | | | | before | after | | a | b | a | b | rep 1 | rep 2 | rep 1 | rep 2 | | | | | rep 1 | rep 2 | rep 1 | rep 2 | | | | | | | | | | |
| 1998 | **T21** | Poivrons rouges surgelés | Frozen red pepper | | | | | | | | | | 3,60 | 3,59 | 3,59 | | | | | | 3,59 | 3,64 | 3,62 | | | | | | 3,6 | 3,68 | 3,64 | 4 | a |
| 1998 | **T22** | Courgettes surgelées | Frozen zucchini | | | | | | | | | | 4,31 | 4,28 | 4,30 | | | | | | 4,28 | 4,27 | 4,28 | | | | | | 4,29 | 4,29 | 4,29 | 4 | a |
| 1998 | **T23** | Poivrons verts surgelés | Frozen green pepper | | | | | | | | | | 4,57 | 4,53 | 4,55 | | | | | | 4,5 | 4,5 | 4,50 | | | | | | 4,5 | 4,51 | 4,51 | 4 | a |
| 2017 | 4141 | Oreillons de prunes surgelés | Frozen plums | | | 10 | 73 | | | | 730 | / | 2,86 | | 2,86 | 10 | 9 | / | 90 | / | 1,95 | / | 1,95 | 10 | 34 | / | 330 | / | 2,52 | / | 2,52 | 4 | a |
| | | | | | | 100 | 7 | | | | | | | | | 100 | 2 | / | | | | | | 100 | 2 | / | | | | | | |
| 2017 | 4142 | Courgettes surgelées | Frozen zucchini | | | 1000 | 45 | | | | 45000 | / | 4,65 | | 4,65 | 1000 | 30 | / | 30000 | / | 4,48 | / | 4,48 | 1000 | 42 | / | 45000 | / | 4,65 | / | 4,65 | 4 | a |
| | | | | | | 10000 | 5 | | | | | | | | | 10000 | 3 | / | | | | | | 10000 | 7 | / | | | | | | |
| 1992 | ADRIA Normandie | Chou rouge | Red cabbage | | | | | | | | | | 8,51 | 8,52 | 8,51 | | | | | | | | | | | | | | 8,61 | 8,58 | 8,60 | 4 | b |
| 1992 | ADRIA Normandie | Chou rouge | Red cabbage | | | | | | | | | | 6,20 | 6,04 | 6,12 | | | | | | | | | | | | | | 6,34 | 6,32 | 6,33 | 4 | b |
| 1992 | ADRIA Normandie | Chou rouge | Red cabbage | | | | | | | | | | 5,48 | 5,54 | 5,51 | | | | | | | | | | | | | | 5,70 | 5,70 | 5,70 | 4 | b |
| 1992 | ADRIA Normandie | Carotte matière première | Grated carrots | | | | | | | | | | 7,61 | 7,65 | 7,63 | | | | | | | | | | | | | | 7,64 | 7,66 | 7,65 | 4 | b |
| 1992 | ADRIA Normandie | Carotte matière première | Grated carrots | | | | | | | | | | 7,00 | 7,20 | 7,10 | | | | | | | | | | | | | | 7,10 | 7,23 | 7,16 | 4 | b |
| 1992 | ADRIA Normandie | Salade | Salad | | | | | | | | | | 7,70 | 7,85 | 7,77 | | | | | | | | | | | | | | 7,65 | 7,74 | 7,70 | 4 | b |
| 1992 | ADRIA Normandie | Salade | Salad | | | | | | | | | | 7,60 | 7,65 | 7,63 | | | | | | | | | | | | | | 7,78 | 7,81 | 7,80 | 4 | b |
| 1992 | ADRIA Normandie | Salade | Salad | | | | | | | | | | 7,23 | 7,40 | 7,31 | | | | | | | | | | | | | | 7,48 | 7,54 | 7,51 | 4 | b |
| 1992 | ADRIA Normandie | Salade | Salad | | | | | | | | | | 7,78 | 7,74 | 7,76 | | | | | | | | | | | | | | 7,78 | 7,70 | 7,74 | 4 | b |
| 1992 | ADRIA Normandie | Salade | Salad | | | | | | | | | | 7,54 | 7,60 | 7,57 | | | | | | | | | | | | | | 7,65 | 7,54 | 7,60 | 4 | b |
| 1992 | ADRIA Normandie | Salade du jour | Salad | | | | | | | | | | 7,57 | 7,57 | 7,57 | | | | | | | | | | | | | | 7,54 | 7,63 | 7,59 | 4 | b |
| 1992 | ADRIA Normandie | Salade du jour | Salad | | | | | | | | | | 7,35 | 7,30 | 7,33 | | | | | | | | | | | | | | 7,35 | 7,30 | 7,33 | 4 | b |
| 1992 | ADRIA Normandie | Salade du jour | Salad | | | | | | | | | | 7,90 | 7,90 | 7,90 | | | | | | | | | | | | | | 7,97 | 7,89 | 7,93 | 4 | b |
| 1992 | ADRIA Normandie | Salade du jour | Salad | | | | | | | | | | 7,89 | 7,86 | 7,87 | | | | | | | | | | | | | | 7,79 | 7,83 | 7,81 | 4 | b |
| 1992 | ADRIA Normandie | Salade mêlée | Salad | | | | | | | | | | 5,81 | 5,66 | 5,74 | | | | | | | | | | | | | | 5,95 | 5,90 | 5,93 | 4 | b |
| 1992 | ADRIA Normandie | Cœur de laitue | Salad | | | | | | | | | | 6,04 | 6,00 | 6,02 | | | | | | | | | | | | | | 6,08 | 6,11 | 6,10 | 4 | b |
| 1992 | ADRIA Normandie | Salade mêlée | Salad | | | | | | | | | | 7,70 | 7,49 | 7,60 | | | | | | | | | | | | | | 7,85 | 7,89 | 7,87 | 4 | b |
| 1992 | ADRIA Normandie | Batavia | Salad | | | | | | | | | | 7,96 | 8,08 | 8,02 | | | | | | | | | | | | | | 8,30 | 8,32 | 8,31 | 4 | b |
| 1992 | ADRIA Normandie | Batavia | Salad | | | | | | | | | | 8,79 | 8,70 | 8,75 | | | | | | | | | | | | | | 8,72 | 8,72 | 8,72 | 4 | b |
| 1992 | ADRIA Normandie | Batavia | Salad | | | | | | | | | | 8,40 | 8,53 | 8,46 | | | | | | | | | | | | | | 8,58 | 8,67 | 8,63 | 4 | b |
| 1992 | ADRIA Normandie | Mélange de crudités | Mixed crudités | | | | | | | | | | 8,02 | 8,08 | 8,05 | | | | | | | | | | | | | | 6,81 | 6,85 | 6,83 | 4 | b |
| 1992 | ADRIA Normandie | Mélange de crudités | Mixed crudités | | | | | | | | | | 7,78 | 8,41 | 8,09 | | | | | | | | | | | | | | 6,81 | 6,78 | 6,80 | 4 | b |

| FRUITS AND VEGETABLES | | |

| FRUITS AND VEGETABLES | | |

| FRUITS AND VEGETABLES | | |

## EGG PRODUCTS AND EGG-BASED PRODUCTS

| Date of analysis | Sample number | Product (French name) | Product | pH | | Reference method ISO 4833 | | | | | | | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | | | | | | | | | Category | type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | 48h at 30°C ± 1°C | | | | | | | | 72h at 30°C ± 1°C | | | | | | | | | |
| | | | | | | Dilution | cfu/plate | | | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | | |
| | | | | before | after | | rep 1 | | rep 2 | | rep 1 | rep 2 | rep 1 | rep 2 | | | rep 1 | rep 2 | rep 1 | rep 2 | rep 1 | rep 2 | | | rep 1 | rep 2 | rep 1 | rep 2 | rep 1 | rep 2 | | | |
| | | | | | | | a | b | a | b | | | | | | | | | | | | | | | | | | | | | | |
| 1998 | **T35** | Mayonnaise | Mayonnaise | | | | | | | | | | 3,74 | 3,75 | 3,74 | | | | | | 3,64 | 3,72 | 3,68 | | | | | | 3,9 | 3,93 | 3,92 | 5 | a |
| 1998 | **T71** | Mayonnaise | Mayonnaise | | | | | | | | | | 2,31 | 2,2 | 2,26 | | | | | | 1,95 | 1,3 | 1,63 | | | | | | 2,08 | 1,6 | 1,84 | 5 | a |
| 1998 | **T91** | Crème pâtissière | Custard | | | | | | | | | | 3,75 | 3,71 | 3,73 | | | | | | 3,94 | 3,95 | 3,95 | | | | | | 3,97 | 3,98 | 3,97 | 5 | a |
| 1998 | **T92** | Crème anglaise | Custard | | | | | | | | | | 1,78 | 1,93 | 1,85 | | | | | | 1 | <1,00 | <1,00 | | | | | | 1 | <1,00 | <1,00 | 5 | a |
| 1998 | **T95** | Mayonnaise | Mayonnaise | | | | | | | | | | 2,19 | 2,06 | 2,12 | | | | | | 1,85 | 1,7 | 1,77 | | | | | | 1,9 | 1,9 | 1,90 | 5 | a |
| 1998 | **T97** | Crème aux œufs | Egg cream | | | | | | | | | | 1,30 | 1,18 | 1,24 | | | | | | <1,00 | <1,00 | <1,00 | | | | | | <1,00 | <1,00 | <1,00 | 5 | a |
| 2017 | 4143 | Mayonnaise | Mayonnaise | | | 10 | 6 | | | | 60 | / | 1,78 | | 1,78 | 10 | 11 | / | 130 | / | 2,11 | / | 2,11 | 10 | 12 | / | 140 | / | 2,15 | / | 2,15 | 5 | a |
| | | | | | | 100 | 3 | | | | | | | | Ne | 100 | 3 | / | | | | | | 100 | 3 | / | | | | | | |
| 1998 | **T70** | Coule d'œuf | Whole egg | | | | | | | | | | <1 | <1 | <1,00 | | | | | | <1 | <1 | <1 | | | | | | <1 | 1 | <1,00 | 5 | b |
| 1998 | **T72** | Coule d'œuf | Whole egg | | | | | | | | | | <1 | <1 | <1 | | | | | | 1,3 | <1,00 | <1,15 | | | | | | 1,3 | <1,00 | <1,15 | 5 | b |
| 1998 | **T93** | Coule d'œuf | Whole egg | | | | | | | | | | 1,40 | 1,3 (matrix effect at (-1) dilution | 1,35 | | | | | | 2,62 | 2,54 | 2,58 | | | | | | 2,65 | 2,61 | 2,63 | 5 | b |
| 1998 | **T94** | Coule d'œuf | Whole egg | | | | | | | | | | 1,60 | 1,3 | 1,45 | | | | | | 1,48 | 1,95 | 1,72 | | | | | | 1,95 | 2,3 | 2,13 | 5 | b |
| 2005 | 379 | Coule d'œuf | Whole egg | | | 10000 | >300 | >300 | >300 | >300 | 14000000 | 5300000 | 7,15 | 6,72 | 6,94 | 10000 | 76 | 92 | 780000 | 780000 | 5,89 | 5,89 | 5,89 | 10000 | 79 | 88 | 810000 | 890000 | 5,91 | 5,95 | 5,93 | 5 | b |
| | | | | | | 100000 | 130 | 143 | 44 | 62 | | | | | | 100000 | 10 | 10 | | | | | | 100000 | 10 | 10 | | | | | | | |
| 2005 | 380 | Coule d'œuf | Whole egg | | | 10000 | >300 | >300 | >300 | >300 | 6100000 | 5300000 | 6,79 | 6,72 | 6,76 | 10000 | 62 | 66 | 630000 | 630000 | 5,8 | 5,8 | 5,80 | 10000 | 64 | 75 | 650000 | 760000 | 5,81 | 5,88 | 5,85 | 5 | b |
| | | | | | | 100000 | 62 | 60 | 52 | 53 | | | | | | 100000 | 7 | 9 | | | | | | 100000 | 7 | 9 | | | | | | | |
| 2005 | 381 | Coule d'œufs de caille | Whole quail egg | | | 10 | 166 | 169 | 148 | 154 | 1900 | 1800 | 3,28 | 3,26 | 3,27 | 10 | 107 | 101 | 1200 | 1100 | 3,08 | 3,04 | 3,06 | 10 | 134 | 143 | 1900 | 1500 | 3,28 | 3,18 | 3,23 | 5 | b |
| | | | | | | 100 | 42 | 49 | 56 | 47 | | | | | | 100 | 30 | 22 | | | | | | 100 | 70 | 22 | | | | | | | |
| 1998 | **T17** | Nougat glacé | Iced nougat | | | | | | | | | | 3,75 | 3,83 | 3,79 | | | | | | 2,46 | 2,42 | 2,44 | | | | | | 2,75 | 2,6 | 2,68 | 5 | c |
| 1998 | **T18** | Charlotte poire surgelée | Frozen pastry | | | | | | | | | | 3,95 | 3,95 | 3,95 | | | | | | 2,77 | 2,69 | 2,73 | | | | | | 2,87 | 2,88 | 2,88 | 5 | c |
| 1998 | **T19** | Délice café/chocolat surgelé | Frozen pastry | | | | | | | | | | 3,04 | 2,97 | 3,00 | | | | | | 3 | 2,95 | 2,98 | | | | | | 3,02 | 2,97 | 3,00 | 5 | c |
| 1998 | **T20** | Nougat glacé | Iced nougat | | | | | | | | | | 4,04 | 4,04 | 4,04 | | | | | | 2,57 | 2,26 | 2,42 | | | | | | 2,41 | 2,28 | 2,34 | 5 | c |
| 1998 | **T40** | Eclair au chocolat | Pastry | | | | | | | | | | 3,81 | 3,75 | 3,78 | | | | | | 3,37 | 3,51 | 3,44 | | | | | | 3,49 | 3,7 | 3,59 | 5 | c |
| 1998 | **T41** | Gland au chocolat | Pastry | | | | | | | | | | 4,43 | 5,13 | 4,78 | | | | | | 5,22 | 5,24 | 5,23 | | | | | | 5,3 | 5,28 | 5,29 | 5 | c |
| 1998 | **T67** | Eclair | Pastry | | | | | | | | | | 4,73 | 4,64 | 4,68 | | | | | | 4,74 | 4,73 | 4,74 | | | | | | 4,75 | 4,73 | 4,74 | 5 | c |
| 1998 | **T68** | Religieuse | Pastry | | | | | | | | | | 4,80 | 4,76 | 4,78 | | | | | | 4,76 | 4,81 | 4,79 | | | | | | 4,8 | 4,83 | 4,82 | 5 | c |
| 1998 | **T69** | Gland | Pastry | | | | | | | | | | 4,98 | 4,88 | 4,93 | | | | | | 4,95 | 4,92 | 4,94 | | | | | | 4,98 | 4,94 | 4,96 | 5 | c |
| 2005 | 382 | Millefeuille | Pastry | | | 100 | >300 | >300 | >300 | >300 | >300000 | >300000 | >5,48 | >5,48 | >5,48 | 100 | >300 | >300 | >300000 | >300000 | >5,48 | >5,48 | >5,48 | 100 | >300 | >300 | >300000 | >300000 | >5,48 | >5,48 | >5,48 | 5 | c |
| | | | | | | 1000 | >300 | >300 | >300 | >300 | | | | | | 1000 | >300 | >300 | | | | | | 1000 | >300 | >300 | | | | | | 5 | c |

## PET FOODS

| Date of analysis | Sample number | Product (French name) | Product | pH | | Reference method ISO 4833 ♦ | | | | | | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | | | | | | | | Category | type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | 48h at 30°C ± 1°C | | | | | | | | 72h at 30°C ± 1°C | | | | | | | | | |
| | | | | | | Dilution | cfu/plate | | | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | Dilution | cfu/Petrifilm | | cfu/g | | Log (cfu/g) | | Log (cfu/g) mean | | |
| | | | | before | after | | rep 1 | | rep 2 | | rep 1 | rep 2 | rep 1 | rep 2 | | | rep 1 | rep 2 | rep 1 | rep 2 | rep 1 | rep 2 | | | rep 1 | rep 2 | rep 1 | rep 2 | rep 1 | rep 2 | | | |
| | | | | | | | a | b | a | b | | | | | | | | | | | | | | | | | | | | | | |
| 2014 | 3830 | Croquettes pour chat au poulet | Pellets for cats (poultry) | | | 10 | 0 | | 0 | | <10 | <10 | <1,00 | <1,00 | <1,00 | 10 | 0 | 0 | <10 | <10 | <1,00 | <1,00 | <1,00 | 10 | 0 | 0 | <10 | <10 | <1,00 | <1,00 | <1,00 | 6 | a |
| | | | | | | 100 | 0 | | 0 | | | | | | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 3831 | Croquettes pour chat au bœuf | Pellets for cats (beef) | | | 10 | 0 | | 0 | | <10 | <10 | <1,00 | <1,00 | <1,00 | 10 | 0 | 0 | <10 | <10 | <1,00 | <1,00 | <1,00 | 10 | 0 | 0 | <10 | <10 | <1,00 | <1,00 | <1,00 | 6 | a |
| | | | | | | 100 | 0 | | 0 | | | | | | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 3832 | Croquettes pour chien à la volaille | Pellets for dogs (poultry) | | | 10 | 4 | | 2 | | 40 | 20 | 1,60 | 1,30* | 1,45* | 10 | 2 | 2 | 20 | 20 | 1,30* | 1,30* | 1,30* | 10 | 2 | 2 | 20 | 20 | 1,30* | 1,30* | 1,30* | 6 | a |
| | | | | | | 100 | 0 | | 0 | | | | Ne | | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 3898 | Brisures de riz pour chien | Broken rice for dog | | | 1000 | 51 | | 67 | | 50000 | 65000 | 4,70 | 4,81 | 4,76 | 1000 | 78 | 69 | 77000 | 65000 | 4,89 | 4,81 | 4,85 | 1000 | 79 | 69 | 78000 | 65000 | 4,89 | 4,81 | 4,85 | 6 | a |
| | | | | | | 10000 | 4 | | 5 | | | | | | | 10000 | 7 | 3 | | | | | | 10000 | 7 | 3 | | | | | | | |
| 2014 | 3899 | Riz soufflé pour chien | Rice for dog | | | 10 | 69 | | 61 | | 800 | 640 | 2,90 | 2,81 | 2,85 | 10 | 52 | 53 | 540 | 570 | 2,73 | 2,76 | 2,74 | 10 | 55 | 53 | 570 | 580 | 2,76 | 2,76 | 2,76 | 6 | a |
| | | | | | | 100 | 19 | | 9 | | | | | | | 100 | 7 | 10 | | | | | | 100 | 8 | 11 | | | | | | | |
| | | | | | | 1000 | 22 | | 30 | | | | | | | 1000 | 26 | 28 | | | N' | N' | N' | 1000 | 26 | 30 | | | N' | N' | N' | | |
| 2014 | 3900 | Macaronis/viande pour chien | Pastas/meat for dog | | | 100 | 219 | | 224 | | 22000 | 23000 | 4,34 | 4,36 | 4,35 | 100 | impossible to enumerate | | 26000 | 28000 | 4,41 | 4,45 | 4,43 | 100 | impossible to enumerate | | 26000 | 30000 | 4,41 | 4,48 | 4,45 | 6 | a |
| 2017 | **6905** | **Croquettes pour chat** | **Pellets for cats** | 6,92 | / | 100 | >300 | | | | 50000 | | 4,70 | | 4,70 | 100 | >300 | / | 34000 | / | 4,53 | / | 4,53 | 100 | >300 | / | 64000 | | 4,81 | / | 4,81 | 6 | a |
| | | | | | | 1000 | 50 | | | | | | | | | 1000 | 64 | / | | | | | | 1000 | 64 | / | | | | | | | |
| 2017 | **6906** | **Croquettes pour chien** | **Pellets for dogs** | 6,83 | / | 1000 | 286 | | | | 290000 | | 5,46 | | 5,46 | 1000 | 247 | / | 250000 | / | 5,40 | / | 5,40 | 1000 | 247 | / | 250000 | | 5,40 | / | 5,40 | 6 | a |
| | | | | | | 10000 | 35 | | | | | | | | | 10000 | 30 | / | | | | | | 10000 | 30 | / | | | | | | | |
| 2014 | 3833 | Terrine pour chat au saumon | Pâté for cats (salmon) | | | 10 | 0 | | 0 | | <10 | <10 | <1,00 | <1,00 | <1,00 | 10 | 0 | 1 | <10 | 10 | <1,00 | 1,00* | <1,00 | 10 | 0 | 1 | <10 | 10 | <1,00 | 1,00* | <1,00 | 6 | b |
| | | | | | | 100 | 0 | | 0 | | | | | | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 3834 | Saucisson pour chien viande légumes | Sausages for dogs | | | 10 | >300 | | >300 | | >30000 | >30000 | >4,47 | >4,47 | >4,47 | 10 | >300 | >300 | >30000 | >30000 | >4,47 | >4,47 | >4,47 | 10 | >300 | >300 | >30000 | >30000 | >4,47 | >4,47 | >4,47 | 6 | b |
| | | | | | | 100 | >300 | | >300 | | | | | | | 100 | >300 | >300 | | | | | | 100 | >300 | >300 | | | | | | | |
| 2014 | 3835 | Saucisson pour chien | Sausages for dogs | | | 10 | 2 | | 4 | | 20 | 40 | 1,30* | 1,60 | 1,45* | 10 | 0 | 2 | <10 | 20 | <1,00 | 1,30* | <1,15 | 10 | 0 | 2 | <10 | 20 | <1,00 | 1,30* | <1,15 | 6 | b |
| | | | | | | 100 | 0 | | 0 | | | | | Ne | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 3901 | Snack au poulet pour chien | Poultry snack for dog | | | 10 | 4 | | 4 | | 40 | 40 | 1,60 | 1,60 | 1,60 | 10 | 4 | 6 | 40 | 60 | 1,60 | 1,78 | 1,69 | 10 | 4 | 6 | 40 | 60 | 1,60 | 1,78 | 1,69 | 6 | b |
| | | | | | | 100 | 1 | | 3 | | | | Ne | Ne | Ne | 100 | 0 | 0 | | | Ne | Ne | | 100 | 0 | 0 | | | Ne | | | | |
| 2014 | 3902 | Saucisson pour chien viande légumes | Sausage for dog | | | 10000 | 55 | | 82 | | 530000 | 810000 | 5,72 | 5,91 | 5,82 | 10000 | 135 | 96 | 1300000 | 1000000 | 6,11 | 6,00 | 6,06 | 10000 | 135 | 97 | 1300000 | 1000000 | 6,11 | 6,00 | 6,06 | 6 | b |
| | | | | | | 100000 | 3 | | 7 | | | | | | | 100000 | 12 | 15 | | | | | | 100000 | 12 | 15 | | | | | | | |
| 2014 | 4785 | Saucisson pour chien | Sausage for dog | | | 10 | 1 | | 3 | | 10 | 30 | 1,00* | 1,30* | 1,15* | 10 | 1 | 1 | 10 | 10 | 1,00* | 1,00* | 1,00* | 10 | 1 | 1 | 10 | 10 | 1,00* | 1,00* | 1,00* | 6 | b |
| | | | | | | 100 | 0 | | 0 | | | | | | | 100 | 0 | 0 | | | | | | 100 | 0 | 0 | | | | | | | |
| 2014 | 4786 | Snack pour chien arôme bacon | Snack for dog (bacon flavor) | | | 10 | 57 | | 70 | | 600 | 710 | 2,78 | 2,85 | 2,81 | 10 | 126 | 120 | 1200 | 1200 | 3,08 | 3,08 | 3,08 | 10 | 127 | 123 | 1200 | 1200 | 3,08 | 3,08 | 3,08 | 6 | b |
| | | | | | | 100 | 9 | | 8 | | | | | | | 100 | 8 | 14 | | | | | | 100 | 8 | 14 | | | | | | | |
| 2014 | 4787 | Snack pour chien à la viande | Snack for dog (meat) | | | 10 | 15 | | 12 | | 160 | 120 | 2,20 | 2,08 | 2,14 | 10 | 10 | 6 | 91 | 60 | 1,96 | 1,78 | 1,87 | 10 | 21 | 23 | 190 | 230 | 2,28 | 2,36 | 2,32 | 6 | b |
| | | | | | | 100 | 2 | | 1 | | | | | | | 100 | 0 | 1 | | | | Ne | | 100 | 0 | 2 | | | | | | | |
| 2017 | 4144 | Saucisson pour chien | Sausage for dog | | | 10 | 4 | | | | 40 | / | 1,60 | | 1,60 | 10 | 0 | / | <10 | / | <1,00 | / | <1,00 | 10 | 0 | / | <10 | / | <1,00 | / | <1,00 | 6 | b |
| | | | | | | 100 | 1 | | | | | | | | Ne | 100 | 0 | / | | | | | | 100 | 0 | / | | | | | | 6 | b |
| 2017 | **6242** | **Saucisson pour chien** | **Sausage for dog** | 6,60 | 6,93 | 100 | 31 | | | | 2900 | | 3,46 | | 3,46 | 100 | 39 | / | 3900 | / | 3,59 | / | 3,59 | 100 | 39 | | 3900 | / | 3,59 | / | 3,59 | 6 | b |
| | | | | | | 1000 | 1 | | | | | | | | | 1000 | 4 | / | | | | | | 1000 | 4 | | | | | | 6 | b |
| 2014 | 3672 | Farine de volaille | Poultry flour | | | 10 | 109 | | 83 | | 1100 | 860 | 3,04 | 2,93 | 3,04 | 10 | 107 | 103 | 1000 | 990 | 3,00 | 3,00 | 3,00 | 10 | 133 | 126 | 1300 | 1200 | 3,11 | 3,08 | 3,10 | 6 | c |
| | | | | | | 100 | 7 | | 11 | | | | | | | 100 | 6 | 6 | | | | | | 100 | 13 | 9 | | | | | | 6 | c |
| 2014 | 3673 | Farine d'agneau | Lamb flour | | | 100 | 57 | | 39 | | 5700 | 4100 | 3,76 | 3,61 | 3,76 | 100 | 80 | 72 | 7600 | 6600 | 3,88 | 3,82 | 3,85 | 100 | 88 | 77 | 8600 | 7400 | 3,93 | 3,87 | 3,90 | 6 | c |
| | | | | | | 1000 | 6 | | 6 | | | | | | | 1000 | 4 | 1 | | | | | | 1000 | 7 | 4 | | | | | | 6 | c |
| 2014 | 3674 | Creton (farine animale) | Animal flour | | | 1000 | 24 | | 27 | | 24000 | 26000 | 4,38 | 4,41 | 4,38 | 100 | 82 | 85 | 8100 | 8500 | 3,91 | 3,93 | 3,92 | 1000 | 24 | 34 | 24000 | 35000 | 4,38 | 4,54 | 4,46 | 6 | c |
| | | | | | | 10000 | 2 | | 2 | | | | | | | 1000 | 7 | 9 | | | | | | 10000 | 0 | 5 | | | N' | | | 6 | c |

♦ Analyses performed according to the COFRAC accreditation

| PET FOODS | | |

| ENVIRONMENTAL SAMPLES | | |

| ENVIRONMENTAL SAMPLES | | |

## Appendix 5 - Relative trueness study: summarized results and calculations

| Category | Type | N° sample | Incubation : 48h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 1 | a | ADRIA Normandie | 5,88 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,10 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,65 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,00 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,79 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,74 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,35 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,15 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,98 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,53 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,02 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,22 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,40 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,26 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,25 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,06 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,57 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,50 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,00 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,81 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,73 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,35 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,56 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,02 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,59 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 2,75 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,35 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,47 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,59 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,39 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,41 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,72 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,24 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,61 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,50 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,16 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,77 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,98 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,24 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,73 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 6,49 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,54 | | #N/A | | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,60 | | #N/A | | | | #N/A | | #N/A | |
| | a | **T31** | 5,74 | 5,75 | 5,75 | 0,01 | | | #N/A | | #N/A | |
| | a | **T49** | 4,78 | 5,03 | 4,91 | 0,25 | | | #N/A | | #N/A | |
| | a | **T50** | 4,89 | 4,99 | 4,94 | 0,10 | | | #N/A | | #N/A | |
| | a | **T51** | 5,92 | 5,95 | 5,94 | 0,03 | | | #N/A | | #N/A | |
| | a | **T52** | 5,24 | 5,34 | 5,29 | 0,10 | | | #N/A | | #N/A | |
| | a | **T54** | 5,70 | 5,79 | 5,75 | 0,09 | | | #N/A | | #N/A | |
| | a | **T55** | 7,10 | 7,21 | 7,16 | 0,11 | | | #N/A | | #N/A | |
| | a | **T56** | 6,75 | 6,89 | 6,82 | 0,14 | | | #N/A | | #N/A | |
| | a | **T57** | 7,83 | 7,85 | 7,84 | 0,02 | | | #N/A | | #N/A | |
| | a | **T58** | 5,44 | 5,46 | 5,45 | 0,02 | | | #N/A | | #N/A | |
| | a | **T59** | 5,78 | 5,98 | 5,88 | 0,20 | | | #N/A | | #N/A | |
| | a | **T60** | 4,11 | 4,18 | 4,15 | 0,07 | | | #N/A | | #N/A | |
| | a | **T61** | 4,95 | 4,77 | 4,86 | -0,18 | | | #N/A | | #N/A | |
| | a | **T62** | 4,23 | 4,52 | 4,38 | 0,29 | | | #N/A | | #N/A | |
| | a | **T63** | 4,92 | 4,96 | 4,94 | 0,04 | | | #N/A | | #N/A | |
| | a | **T64** | 5,63 | 5,74 | 5,69 | 0,11 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,96 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,18 | | #N/A | | | | #N/A | | #N/A | |
| | b | **T2** | 7,13 | 7,08 | 7,11 | -0,05 | | | #N/A | | #N/A | |
| | b | **T3** | 3,71 | 3,79 | 3,75 | 0,08 | | | #N/A | | #N/A | |
| | b | **T7** | 7,13 | 7,01 | 7,07 | -0,12 | | | #N/A | | #N/A | |
| | b | **T28** | 7,00 | 7,03 | 7,02 | 0,03 | | | #N/A | | #N/A | |
| | b | 4130 | 0,00 | | #N/A | | 1,48 | | 0,74 | 1,48 | #N/A | |
| | b | **6238** | 2,93 | 2,90 | 2,91 | -0,03 | | | #N/A | | #N/A | |
| | b | 6810 | 1,26 | | #N/A | | 0,00 | | 0,63 | -1,26 | #N/A | |
| | c | ADRIA Normandie | 2,00 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,96 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,63 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,09 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,59 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,16 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,15 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,38 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,89 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,30 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 2,39 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,97 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,50 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 2,98 | | #N/A | | | | #N/A | | #N/A | |
| | c | **T27** | 7,22 | 6,03 | 6,63 | -1,19 | | | #N/A | | #N/A | |
| | c | **T29** | 3,37 | 3,18 | 3,28 | -0,19 | | | #N/A | | #N/A | |
| | c | 4131 | 3,96 | 3,91 | 3,93 | -0,05 | | | #N/A | | #N/A | |
| | c | 4132 | 5,18 | 1,85 | 3,51 | -3,33 | | | #N/A | | #N/A | |
| | c | 4133 | 4,67 | 4,66 | 4,67 | -0,01 | | | #N/A | | #N/A | |
| Average category 1 | | | | | | **-0,13** | | | | | | |
| Standard deviation of differences category 1 | | | | | | **0,70** | | | | | | |

| Category | Type | N°sample | Incubation : 48h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 3 | a | **T65** | 6,43 | | #N/A | | | | #N/A | | #N/A | |
| | a | **T86** | 4,67 | | #N/A | | | | #N/A | | #N/A | |
| | a | **T87** | 4,72 | | #N/A | | | | #N/A | | #N/A | |
| | a | **T88** | 5,50 | | #N/A | | | | #N/A | | #N/A | |
| | a | **T89** | 5,83 | 6,26 | 6,05 | 0,43 | | | #N/A | | #N/A | |
| | a | **T90** | 5,90 | 6,14 | 6,02 | 0,24 | | | #N/A | | #N/A | |
| | a | 356 | 3,73 | 3,59 | 3,66 | -0,14 | | | #N/A | | #N/A | |
| | a | 357 | 4,45 | 4,85 | 4,65 | 0,40 | | | #N/A | | #N/A | |
| | a | 358 | 4,69 | 4,43 | 4,56 | -0,26 | | | #N/A | | #N/A | |
| | b | **T13** | 4,21 | 4,10 | 4,16 | -0,11 | | | #N/A | | #N/A | |
| | b | **T14** | 4,42 | 4,38 | 4,40 | -0,04 | | | #N/A | | #N/A | |
| | b | **T15** | 3,78 | 4,13 | 3,96 | 0,35 | | | #N/A | | #N/A | |
| | b | 4139 | 4,54 | 4,89 | 4,72 | 0,34 | | | #N/A | | #N/A | |
| | b | 4140 | 5,11 | 5,04 | 5,08 | -0,07 | | | #N/A | | #N/A | |
| | c | **T4** | 6,27 | 6,30 | 6,29 | 0,03 | | | #N/A | | #N/A | |
| | c | **T6** | 4,39 | 4,48 | 4,44 | 0,09 | | | #N/A | | #N/A | |
| | c | **T9** | 5,10 | 5,14 | 5,12 | 0,04 | | | #N/A | | #N/A | |
| | c | **T11** | 5,85 | 5,85 | 5,85 | 0,00 | | | #N/A | | #N/A | |
| | c | **T12** | 4,63 | 4,25 | 4,44 | -0,38 | | | #N/A | | #N/A | |
| | c | **T16** | 6,33 | 6,79 | 6,56 | 0,46 | | | #N/A | | #N/A | |
| | c | **T24** | 4,36 | 4,24 | 4,30 | -0,12 | | | #N/A | | #N/A | |
| | c | **T96** | 4,88 | 2,84 | 3,86 | -2,04 | | | #N/A | | #N/A | |
| Average category 3 | | | | | | **-0,04** | | | | | | |
| Standard deviation of differences category 3 | | | | | | **0,56** | | | | | | |
| 4 | a | **T21** | 3,59 | 3,62 | 3,61 | 0,03 | | | #N/A | | #N/A | |
| | a | **T22** | 4,30 | 4,28 | 4,29 | -0,02 | | | #N/A | | #N/A | |
| | a | **T23** | 4,55 | 4,50 | 4,53 | -0,05 | | | #N/A | | #N/A | |
| | a | 4141 | 2,86 | 1,95 | 2,41 | -0,91 | | | #N/A | | #N/A | |
| | a | 4142 | 4,65 | 4,48 | 4,57 | -0,18 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,51 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,12 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,51 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,10 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,77 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,31 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,76 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,33 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,90 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,87 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,74 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,02 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,60 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,02 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,75 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,46 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,05 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,09 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,36 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,12 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,88 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,02 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,00 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,02 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,08 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,10 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 10,41 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 10,31 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,94 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,34 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,50 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,34 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,42 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,75 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,87 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,65 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,78 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,72 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,48 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,69 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | | #N/A | | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,81 | | #N/A | | | | #N/A | | #N/A | |
| | b | **T42** | 6,03 | 5,73 | 5,88 | -0,30 | | | #N/A | | #N/A | |
| | b | **T43** | 7,02 | 7,14 | 7,08 | 0,12 | | | #N/A | | #N/A | |
| | b | **T46** | 7,20 | 7,26 | 7,23 | 0,06 | | | #N/A | | #N/A | |
| | b | 6811 | 7,26 | 7,34 | 7,30 | 0,09 | | | #N/A | | #N/A | |
| | b | 6812 | 6,96 | 6,91 | 6,94 | -0,05 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,64 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,83 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,68 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,66 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,72 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,56 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,09 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,79 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,57 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,84 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 9,54 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,00 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,25 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,84 | | #N/A | | | | #N/A | | #N/A | |

| Category | Type | N°sample | Incubation : 48h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| | c | ADRIA Normandie | 6,31 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,87 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,44 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,35 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,05 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,34 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,84 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,39 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,37 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,15 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,09 | | #N/A | | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,72 | | #N/A | | | | #N/A | | #N/A | |
| | c | **T1** | 2,90 | 2,76 | 2,83 | -0,14 | | | #N/A | | #N/A | |
| | c | **T25** | 2,38 | 2,04 | 2,21 | -0,34 | | | #N/A | | #N/A | |
| | c | **T26** | 2,42 | 2,29 | 2,36 | -0,13 | | | #N/A | | #N/A | |
| | c | **T33** | 3,20 | 2,17 | 2,69 | -1,03 | | | #N/A | | #N/A | |
| | c | **T37** | 6,33 | 6,36 | 6,35 | 0,03 | | | #N/A | | #N/A | |
| | c | **T44** | 2,09 | 1,69 | 1,89 | -0,40 | | | #N/A | | #N/A | |
| Average category 4 | | | | | | **-0,20** | | | | | | |
| Standard deviation of differences category 4 | | | | | | **0,34** | | | | | | |
| 5 | a | **T35** | 3,74 | 3,68 | 3,71 | -0,06 | | | #N/A | | #N/A | |
| | a | **T71** | 2,26 | 1,63 | 1,95 | -0,63 | | | #N/A | | #N/A | |
| | a | **T91** | 3,73 | 3,95 | 3,84 | 0,22 | | | #N/A | | #N/A | |
| | a | **T92** | 1,85 | | #N/A | | | 0,00 | #N/A | | 0,93 | -1,85 |
| | a | **T95** | 2,12 | 1,77 | 1,95 | -0,35 | | | #N/A | | #N/A | |
| | a | **T97** | 1,24 | | #N/A | | | 0,00 | #N/A | | 0,62 | -1,24 |
| | a | 4143 | 1,78 | 2,11 | 1,95 | 0,34 | | | #N/A | | #N/A | |
| | b | **T70** | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | b | **T72** | 0,00 | | #N/A | | | 0,15 | #N/A | | 0,08 | 0,15 |
| | b | **T93** | 1,35 | 2,58 | 1,97 | 1,23 | | | #N/A | | #N/A | |
| | b | **T94** | 1,45 | 1,72 | 1,59 | 0,27 | | | #N/A | | #N/A | |
| | b | 379 | 6,94 | 5,89 | 6,41 | -1,05 | | | #N/A | | #N/A | |
| | b | 380 | 6,76 | 5,80 | 6,28 | -0,96 | | | #N/A | | #N/A | |
| | b | 381 | 3,27 | 3,06 | 3,17 | -0,21 | | | #N/A | | #N/A | |
| | c | **T17** | 3,79 | 2,44 | 3,12 | -1,35 | | | #N/A | | #N/A | |
| | c | **T18** | 3,95 | 2,73 | 3,34 | -1,22 | | | #N/A | | #N/A | |
| | c | **T19** | 3,00 | 2,98 | 2,99 | -0,02 | | | #N/A | | #N/A | |
| | c | **T20** | 4,04 | 2,42 | 3,23 | -1,62 | | | #N/A | | #N/A | |
| | c | **T40** | 3,78 | 3,44 | 3,61 | -0,34 | | | #N/A | | #N/A | |
| | c | **T41** | 4,78 | 5,23 | 5,01 | 0,45 | | | #N/A | | #N/A | |
| | c | **T67** | 4,68 | 4,74 | 4,71 | 0,06 | | | #N/A | | #N/A | |
| | c | **T68** | 4,78 | 4,79 | 4,79 | 0,01 | | | #N/A | | #N/A | |
| | c | **T69** | 4,93 | 4,94 | 4,94 | 0,01 | | | #N/A | | #N/A | |
| | c | 382 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| Average category 5 | | | | | | **-0,27** | | | | | | |
| Standard deviation of differences category 5 | | | | | | **0,71** | | | | | | |
| 6 | a | 3830 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | a | 3831 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | a | 3832 | 1,45 | | #N/A | | 1,30 | | 1,38 | -0,15 | #N/A | |
| | a | 3898 | 4,76 | 4,85 | 4,80 | 0,09 | | | #N/A | | #N/A | |
| | a | 3899 | 2,85 | 2,74 | 2,80 | -0,11 | | | #N/A | | #N/A | |
| | a | 3900 | 4,35 | 4,43 | 4,39 | 0,08 | | | #N/A | | #N/A | |
| | a | **6905** | 4,70 | 4,53 | 4,62 | -0,17 | | | #N/A | | #N/A | |
| | a | **6906** | 5,46 | 5,40 | 5,43 | -0,06 | | | #N/A | | #N/A | |
| | b | 3833 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | b | 3834 | 5,47 | | #N/A | | | 5,47 | #N/A | | 5,47 | 0,00 |
| | b | 3835 | 1,45 | | #N/A | | | 0,15 | #N/A | | 0,80 | -1,30 |
| | b | 3901 | 1,60 | 1,69 | 1,65 | 0,09 | | | #N/A | | #N/A | |
| | b | 3902 | 5,82 | 6,06 | | | | | | | | |
| | b | 4785 | 1,15 | | | | 1,00 | | | | | |
| | b | 4786 | 2,81 | 3,08 | | | | | | | | |
| | b | 4787 | 2,14 | 1,87 | | | | | | | | |
| | b | 4144 | 1,60 | | | | | 0,00 | | | | |
| | b | **6242** | 3,46 | 3,59 | | | | | | | | |
| | c | 3672 | 3,04 | 3,00 | | | | | | | | |
| | c | 3673 | 3,76 | 3,85 | | | | | | | | |
| | c | 3674 | 4,38 | 3,92 | | | | | | | | |
| | c | 3675 | 4,36 | 4,20 | | | | | | | | |
| | c | 4145 | 3,94 | 3,81 | | | | | | | | |
| Average category 6 | | | | | | **-0,01** | | | | | | |
| Standard deviation of differences category 6 | | | | | | **0,11** | | | | | | |

| Category | Type | N°sample | Incubation : 48h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 7 | a | 3836 | 2,41 | 2,51 | 2,46 | 0,10 | | | #N/A | | #N/A | |
| | a | 3837 | 2,41 | 2,38 | 2,39 | -0,03 | | | #N/A | | #N/A | |
| | a | 3838 | 1,91 | 1,92 | 1,92 | 0,01 | | | #N/A | | #N/A | |
| | a | 3840 | 3,32 | 3,29 | 3,31 | -0,03 | | | #N/A | | #N/A | |
| | a | 4011 | 0,00 | | #N/A | | | 0,15 | #N/A | | 0,08 | 0,15 |
| | a | 4012 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4013 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4014 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4015 | 4,80 | 4,34 | 4,57 | -0,46 | | | #N/A | | #N/A | |
| | b | 3839 | 3,74 | 2,13 | 2,93 | -1,61 | | | #N/A | | #N/A | |
| | b | 4006 | 4,80 | 4,81 | 4,80 | 0,01 | | | #N/A | | #N/A | |
| | b | 4007 | 0,00 | | | | | 0,00 | | | | |
| | b | 4008 | 5,27 | | | | | 6,48 | | | | |
| | b | 4009 | 6,48 | | | | | 6,48 | | | | |
| | b | 4010 | 4,64 | 4,83 | | | | | | | | |
| | b | 4146 | 0,00 | | | | | 0,00 | | | | |
| | b | 4147 | 2,51 | 2,36 | | | | | | | | |
| | b | **6243** | 2,41 | 2,56 | | | | | | | | |
| | b | 6815 | 4,34 | 3,86 | | | | | | | | |
| | b | 6816 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | c | 3676 | 0,15 | | #N/A | | | 0,00 | #N/A | | 0,08 | -0,15 |
| | c | 3677 | 5,11 | 5,17 | 5,14 | 0,06 | | | #N/A | | #N/A | |
| | c | 3678 | 7,18 | 6,48 | 6,83 | -0,69 | | | #N/A | | #N/A | |
| | c | 3679 | 5,63 | 5,77 | 5,70 | 0,14 | | | #N/A | | #N/A | |
| | c | 4148 | 5,71 | 5,72 | 5,71 | 0,01 | | | #N/A | | #N/A | |
| | c | 4149 | 5,89 | 5,60 | 5,74 | -0,28 | | | #N/A | | #N/A | |
| Average category 7 | | | | | | **-0,23** | | | | | | |
| Standard deviation of differences category 7 | | | | | | **0,50** | | | | | | |
| Average all categories | | | | Dall | | **-0,16** | | | | | | |
| Standard deviation of differences all categories | | | | SDAll | | **0,58** | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | n all | 110 | | | |
| β=95% | T(0,05;70)= | 1,98196743 | | | |
| | | 1,150839071 | Upper limit | Lower limit | Linear |
| | Average (minimal value) | **0,00** | 0,99 | -1,31 | -0,16 |
| | Average (maximal value) | **10,00** | 0,99 | -1,31 | -0,16 |

| Category | n | T(0,05;70)= | SD | ISO formula | Bias | Lower limit (95%) | Upper limit (95%) |
|---|---|---|---|---|---|---|---|
| 1 | 26 | 2,06 | 0,70 | 1,48 | -0,13 | -1,61 | 1,35 |
| 3 | 18 | 2,11 | 0,56 | 1,21 | -0,04 | -1,25 | 1,16 |
| 4 | 16 | 2,13 | 0,34 | 0,74 | -0,20 | -0,94 | 0,54 |
| 5 | 19 | 2,10 | 0,71 | 1,54 | -0,27 | -1,81 | 1,26 |
| 6 | 15 | 2,14 | 0,11 | 0,25 | -0,01 | -0,27 | 0,24 |
| 7 | 16 | 2,13 | 0,50 | 1,10 | -0,23 | -1,33 | 0,87 |
| **All categories** | **79** | **1,99** | **0,58** | **1,16** | **-0,16** | **-1,32** | **1,00** |

| Category | Type | N°sample | Incubation : 72h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 1 | a | ADRIA Normandie | 5,88 | 5,86 | 5,87 | -0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,10 | 5,11 | 5,10 | 0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,65 | 5,64 | 5,64 | 0,00 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,00 | 5,02 | 5,01 | 0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,79 | 4,81 | 4,80 | 0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,74 | 3,53 | 3,64 | -0,20 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,35 | 5,44 | 5,40 | 0,09 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,15 | 4,16 | 4,15 | 0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,98 | 4,02 | 4,00 | 0,04 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,53 | 4,39 | 4,46 | -0,13 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,02 | 3,95 | 3,98 | -0,07 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,22 | 5,00 | 5,11 | -0,22 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,40 | 4,38 | 4,39 | -0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,26 | 5,24 | 5,25 | -0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,25 | 4,24 | 4,25 | -0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,06 | 5,08 | 5,07 | 0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,57 | 3,60 | 3,58 | 0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,50 | 4,47 | 4,49 | -0,04 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,00 | 3,86 | 3,93 | -0,14 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,81 | 3,63 | 3,72 | -0,18 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,73 | 3,64 | 3,69 | -0,08 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,35 | 4,34 | 4,35 | -0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,56 | 4,61 | 4,59 | 0,05 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,02 | 5,11 | 5,07 | 0,09 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,59 | 3,58 | 3,59 | -0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 2,75 | 2,80 | 2,78 | 0,05 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,35 | 3,39 | 3,37 | 0,04 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,47 | 3,47 | 3,47 | -0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,59 | 3,59 | 3,59 | 0,00 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,39 | 3,21 | 3,30 | -0,18 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 3,41 | 3,38 | 3,39 | -0,03 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,72 | 4,67 | 4,69 | -0,04 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,24 | 4,30 | 4,27 | 0,06 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,61 | 4,62 | 4,61 | 0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,50 | 4,55 | 4,53 | 0,05 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,16 | 5,18 | 5,17 | 0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,77 | 4,78 | 4,78 | 0,01 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 4,98 | 4,96 | 4,97 | -0,02 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,24 | 5,22 | 5,23 | -0,03 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,73 | 5,70 | 5,71 | -0,03 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 6,49 | 6,46 | 6,48 | -0,03 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,54 | 5,50 | 5,52 | -0,03 | | | #N/A | | #N/A | |
| | a | ADRIA Normandie | 5,60 | 5,63 | 5,61 | 0,03 | | | #N/A | | #N/A | |
| | a | **T31** | 5,74 | 5,75 | 5,75 | 0,01 | | | #N/A | | #N/A | |
| | a | **T49** | 4,78 | 5,03 | 4,91 | 0,25 | | | #N/A | | #N/A | |
| | a | **T50** | 4,89 | 4,99 | 4,94 | 0,10 | | | #N/A | | #N/A | |
| | a | **T51** | 5,92 | 5,95 | 5,94 | 0,03 | | | #N/A | | #N/A | |
| | a | **T52** | 5,24 | 5,34 | 5,29 | 0,10 | | | #N/A | | #N/A | |
| | a | **T54** | 5,70 | 5,79 | 5,75 | 0,09 | | | #N/A | | #N/A | |
| | a | **T55** | 7,10 | 7,21 | 7,16 | 0,11 | | | #N/A | | #N/A | |
| | a | **T56** | 6,75 | 6,89 | 6,82 | 0,14 | | | #N/A | | #N/A | |
| | a | **T57** | 7,83 | 7,85 | 7,84 | 0,02 | | | #N/A | | #N/A | |
| | a | **T58** | 5,44 | 5,46 | 5,45 | 0,02 | | | #N/A | | #N/A | |
| | a | **T59** | 5,78 | 5,98 | 5,88 | 0,20 | | | #N/A | | #N/A | |
| | a | **T60** | 4,11 | 4,18 | 4,15 | 0,07 | | | #N/A | | #N/A | |
| | a | **T61** | 4,95 | 4,77 | 4,86 | -0,18 | | | #N/A | | #N/A | |
| | a | **T62** | 4,23 | 4,52 | 4,38 | 0,29 | | | #N/A | | #N/A | |
| | a | **T63** | 4,92 | 4,96 | 4,94 | 0,04 | | | #N/A | | #N/A | |
| | a | **T64** | 5,63 | 5,74 | 5,69 | 0,11 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,96 | 5,77 | 5,87 | -0,19 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,18 | 7,06 | 7,12 | -0,11 | | | #N/A | | #N/A | |
| | b | **T2** | 7,13 | 7,08 | 7,11 | -0,05 | | | #N/A | | #N/A | |
| | b | **T3** | 3,71 | 3,81 | 3,76 | 0,10 | | | #N/A | | #N/A | |
| | b | **T7** | 7,13 | 7,04 | 7,09 | -0,09 | | | #N/A | | #N/A | |
| | b | **T28** | 7,00 | 7,03 | 7,02 | 0,03 | | | #N/A | | #N/A | |
| | b | 4130 | 0,00 | | #N/A | | | 1,48 | #N/A | | 0,74 | 1,48 |
| | b | **6238** | 2,93 | 2,93 | 2,93 | 0,01 | | | #N/A | | #N/A | |
| | b | 6810 | 1,26 | | #N/A | | 1,26 | | 1,26 | 0,00 | #N/A | |
| | c | ADRIA Normandie | 2,00 | 2,00 | 2,00 | 0,00 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,96 | 4,92 | 4,94 | -0,03 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,63 | 4,74 | 4,69 | 0,10 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,09 | 4,04 | 4,07 | -0,05 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,59 | 3,32 | 3,46 | -0,27 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,16 | 5,19 | 5,18 | 0,03 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,15 | 3,16 | 3,15 | 0,01 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,38 | 4,30 | 4,34 | -0,08 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,89 | 7,88 | 7,89 | -0,01 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 3,30 | 3,19 | 3,24 | -0,11 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 2,39 | 2,45 | 2,42 | 0,06 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,97 | 5,22 | 5,10 | 0,24 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 4,50 | 4,58 | 4,54 | 0,08 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 2,98 | 2,95 | 2,96 | -0,03 | | | #N/A | | #N/A | |
| | c | **T27** | 7,22 | 6,32 | 6,77 | -0,90 | | | #N/A | | #N/A | |
| | c | **T29** | 3,37 | 3,23 | 3,30 | -0,14 | | | #N/A | | #N/A | |
| | c | 4131 | 3,96 | 3,94 | 3,95 | -0,01 | | | #N/A | | #N/A | |
| | c | 4132 | 5,18 | 1,85 | 3,51 | -3,33 | | | #N/A | | #N/A | |
| | c | 4133 | 4,67 | 4,76 | 4,71 | 0,08 | | | #N/A | | #N/A | |
| Average category 1 | | | | | | **-0,05** | | | | | | |
| Standard deviation of differences category 1 | | | | | | **0,39** | | | | | | |

| Category | Type | N°sample | Incubation : 72h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 2 | a | Piton et Grappin | 5,27 | 5,24 | 5,25 | -0,03 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,36 | 4,41 | 4,38 | 0,05 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,27 | 5,30 | 5,29 | 0,03 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,16 | 5,26 | 5,21 | 0,10 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,32 | 4,39 | 4,36 | 0,07 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,06 | 4,15 | 4,10 | 0,09 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,62 | 5,64 | 5,63 | 0,02 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,24 | 4,37 | 4,30 | 0,13 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,70 | 5,76 | 5,73 | 0,06 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 3,85 | 3,87 | 3,86 | 0,02 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,60 | 4,79 | 4,69 | 0,19 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,44 | 4,47 | 4,45 | 0,02 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,68 | 5,66 | 5,67 | -0,02 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,48 | 5,51 | 5,49 | 0,03 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,38 | 5,49 | 5,43 | 0,11 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,40 | 4,42 | 4,41 | 0,01 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 3,74 | 3,74 | 3,74 | 0,00 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 5,36 | 5,37 | 5,36 | 0,01 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,22 | 4,32 | 4,27 | 0,09 | | | #N/A | | #N/A | |
| | a | Piton et Grappin | 4,28 | 4,35 | 4,32 | 0,07 | | | #N/A | | #N/A | |
| | a | **T47** | 5,92 | 6,19 | 6,06 | 0,27 | | | #N/A | | #N/A | |
| | b | **T73** | 3,76 | 2,89 | 3,33 | -0,87 | | | #N/A | | #N/A | |
| | b | **T74** | 2,63 | 2,07 | 2,35 | -0,56 | | | #N/A | | #N/A | |
| | b | **T75** | 2,67 | 2,36 | 2,52 | -0,31 | | | #N/A | | #N/A | |
| | b | **T76** | 2,64 | 2,80 | 2,72 | 0,16 | | | #N/A | | #N/A | |
| | b | **T77** | 2,66 | 2,72 | 2,69 | 0,06 | | | #N/A | | #N/A | |
| | b | **T78** | 3,12 | 2,87 | 3,00 | -0,25 | | | #N/A | | #N/A | |
| | b | **T79** | 2,72 | 2,85 | 2,79 | 0,13 | | | #N/A | | #N/A | |
| | b | **T80** | 2,58 | 2,68 | 2,63 | 0,10 | | | #N/A | | #N/A | |
| | b | **T81** | 3,24 | 2,77 | 3,01 | -0,47 | | | #N/A | | #N/A | |
| | b | **T82** | 3,19 | 2,92 | 3,06 | -0,27 | | | #N/A | | #N/A | |
| | b | **T83** | 2,71 | 2,80 | 2,76 | 0,09 | | | #N/A | | #N/A | |
| | b | **T84** | 3,49 | 2,94 | 3,22 | -0,55 | | | #N/A | | #N/A | |
| | b | **T85** | 3,34 | 2,87 | 3,11 | -0,47 | | | #N/A | | #N/A | |
| | c | 4134 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | c | 4135 | 3,94 | 3,23 | 3,58 | -0,71 | | | #N/A | | #N/A | |
| | c | 4136 | 4,78 | 4,58 | 4,68 | -0,20 | | | #N/A | | #N/A | |
| | c | 4137 | 4,54 | 6,15 | 5,35 | 1,60 | | | #N/A | | #N/A | |
| | c | 4138 | 1,60 | | #N/A | | | 0,00 | #N/A | | 0,80 | -1,60 |
| | c | 4150 | 1,60 | | #N/A | | 1,30 | | 1,45 | -0,30 | #N/A | |
| | c | 6807 | 3,18 | 3,08 | 3,13 | -0,10 | | | #N/A | | #N/A | |
| | c | 6808 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | c | 6809 | 3,94 | 3,60 | 3,77 | -0,34 | | | #N/A | | #N/A | |
| Average category 2 | | | | | | **-0,04** | | | | | | |
| Standard deviation of differences category 2 | | | | | | **0,38** | | | | | | |
| 3 | a | **T65** | 6,43 | 7,42 | 6,93 | 0,99 | | | #N/A | | #N/A | |
| | a | **T86** | 4,67 | 6,78 | 5,73 | 2,11 | | | #N/A | | #N/A | |
| | a | **T87** | 4,72 | 5,95 | 5,34 | 1,23 | | | #N/A | | #N/A | |
| | a | **T88** | 5,50 | 8,13 | 6,82 | 2,63 | | | #N/A | | #N/A | |
| | a | **T89** | 5,83 | 6,38 | 6,11 | 0,55 | | | #N/A | | #N/A | |
| | a | **T90** | 5,90 | 6,17 | 6,04 | 0,27 | | | #N/A | | #N/A | |
| | a | 356 | 3,73 | 3,77 | 3,75 | 0,04 | | | #N/A | | #N/A | |
| | a | 357 | 4,45 | 4,93 | 4,69 | 0,48 | | | #N/A | | #N/A | |
| | a | 358 | 4,69 | 4,65 | 4,67 | -0,04 | | | #N/A | | #N/A | |
| | b | **T13** | 4,21 | 4,29 | 4,25 | 0,08 | | | #N/A | | #N/A | |
| | b | **T14** | 4,42 | 4,58 | 4,50 | 0,16 | | | #N/A | | #N/A | |
| | b | **T15** | 3,78 | 4,16 | 3,97 | 0,38 | | | #N/A | | #N/A | |
| | b | 4139 | 4,54 | 4,90 | 4,72 | 0,35 | | | #N/A | | #N/A | |
| | b | 4140 | 5,11 | 5,15 | 5,13 | 0,03 | | | #N/A | | #N/A | |
| | c | **T4** | 6,27 | 6,30 | 6,29 | 0,03 | | | #N/A | | #N/A | |
| | c | **T6** | 4,39 | 4,49 | 4,44 | 0,10 | | | #N/A | | #N/A | |
| | c | **T9** | 5,10 | 5,30 | 5,20 | 0,20 | | | #N/A | | #N/A | |
| | c | **T11** | 5,85 | 5,86 | 5,86 | 0,01 | | | #N/A | | #N/A | |
| | c | **T12** | 4,63 | 4,43 | 4,53 | -0,20 | | | #N/A | | #N/A | |
| | c | **T16** | 6,33 | 6,77 | 6,55 | 0,44 | | | #N/A | | #N/A | |
| | c | **T24** | 4,36 | 4,40 | 4,38 | 0,04 | | | #N/A | | #N/A | |
| | c | **T96** | 4,88 | 3,75 | 4,32 | -1,13 | | | #N/A | | #N/A | |
| Average category 3 | | | | | | **0,40** | | | | | | |
| Standard deviation of differences category 3 | | | | | | **0,78** | | | | | | |
| 4 | a | **T21** | 3,59 | 3,64 | 3,62 | 0,05 | | | #N/A | | #N/A | |
| | a | **T22** | 4,30 | 4,29 | 4,30 | -0,01 | | | #N/A | | #N/A | |
| | a | **T23** | 4,55 | 4,51 | 4,53 | -0,04 | | | #N/A | | #N/A | |
| | a | 4141 | 2,86 | 2,52 | 2,69 | -0,34 | | | #N/A | | #N/A | |
| | a | 4142 | 4,65 | 4,65 | 4,65 | 0,00 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,51 | 8,60 | 8,55 | 0,08 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,12 | 6,33 | 6,23 | 0,21 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,51 | 5,70 | 5,60 | 0,19 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | 7,65 | 7,64 | 0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,10 | 7,16 | 7,13 | 0,06 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,77 | 7,70 | 7,73 | -0,08 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | 7,80 | 7,71 | 0,17 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,31 | 7,51 | 7,41 | 0,20 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,76 | 7,74 | 7,75 | -0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | 7,60 | 7,59 | 0,03 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | 7,59 | 7,58 | 0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,33 | 7,33 | 7,33 | 0,00 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,90 | 7,93 | 7,92 | 0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,87 | 7,81 | 7,84 | -0,06 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 5,74 | 5,93 | 5,83 | 0,19 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,02 | 6,10 | 6,06 | 0,08 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,60 | 7,87 | 7,73 | 0,28 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,02 | 8,31 | 8,17 | 0,29 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,75 | 8,72 | 8,73 | -0,03 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,46 | 8,63 | 8,55 | 0,16 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,05 | 6,83 | 7,44 | -1,22 | | | #N/A | | #N/A | |

| Category | Type | N°sample | Incubation : 72h | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 4 | b | ADRIA Normandie | 8,09 | 6,80 | 7,44 | -1,30 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,36 | 6,57 | 7,46 | -1,78 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,57 | 6,72 | 7,15 | -0,85 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,12 | 6,45 | 7,29 | -1,67 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,88 | 6,84 | 6,86 | -0,04 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,02 | 9,13 | 9,08 | 0,10 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,00 | 9,06 | 9,03 | 0,06 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,02 | 8,94 | 8,98 | -0,08 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,08 | 9,06 | 9,07 | -0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 9,10 | 8,99 | 9,04 | -0,11 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 10,41 | 10,45 | 10,43 | 0,03 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 10,31 | 10,12 | 10,22 | -0,19 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,94 | 7,49 | 7,72 | -0,45 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,34 | 8,64 | 8,49 | 0,30 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,50 | 8,59 | 8,55 | 0,08 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,34 | 8,68 | 8,51 | 0,34 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,42 | 8,57 | 8,50 | 0,15 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 6,75 | 6,88 | 6,81 | 0,13 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,87 | 7,81 | 7,84 | -0,06 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,65 | 7,83 | 7,74 | 0,18 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,78 | 7,82 | 7,80 | 0,04 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,72 | 7,77 | 7,74 | 0,06 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 8,48 | 8,74 | 8,61 | 0,26 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,69 | 7,65 | 7,67 | -0,04 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,63 | 7,65 | 7,64 | 0,02 | | | #N/A | | #N/A | |
| | b | ADRIA Normandie | 7,81 | 7,98 | 7,89 | 0,17 | | | #N/A | | #N/A | |
| | b | **T42** | 6,03 | 5,77 | 5,90 | -0,26 | | | #N/A | | #N/A | |
| | b | **T43** | 7,02 | 7,16 | 7,09 | 0,14 | | | #N/A | | #N/A | |
| | b | **T46** | 7,20 | 7,26 | 7,23 | 0,06 | | | #N/A | | #N/A | |
| | b | 6811 | 7,26 | 7,34 | 7,30 | 0,09 | | | #N/A | | #N/A | |
| | b | 6812 | 6,96 | 6,98 | 6,97 | 0,01 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,64 | 8,20 | 7,92 | 0,56 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,83 | 8,10 | 7,97 | 0,26 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,68 | 8,25 | 7,96 | 0,57 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,66 | 8,70 | 8,68 | 0,05 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,72 | 8,73 | 8,72 | 0,02 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,56 | 8,61 | 8,59 | 0,05 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,09 | 8,28 | 8,19 | 0,18 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,79 | 8,64 | 8,72 | -0,14 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,57 | 8,74 | 8,65 | 0,16 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,84 | 9,19 | 9,02 | 0,35 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 9,54 | 9,04 | 9,29 | -0,50 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,00 | 6,33 | 6,17 | 0,33 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,25 | 6,45 | 6,35 | 0,20 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,84 | 6,16 | 6,00 | 0,32 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,31 | 6,45 | 6,38 | 0,14 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 5,87 | 6,30 | 6,09 | 0,43 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,44 | 6,57 | 6,51 | 0,14 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,35 | 6,40 | 6,37 | 0,05 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,05 | 8,07 | 8,06 | 0,02 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,34 | 8,37 | 8,35 | 0,04 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,84 | 7,84 | 7,84 | 0,00 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,39 | 7,41 | 7,40 | 0,02 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,37 | 8,39 | 8,38 | 0,02 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 8,15 | 8,27 | 8,21 | 0,12 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 7,09 | 7,09 | 7,09 | -0,01 | | | #N/A | | #N/A | |
| | c | ADRIA Normandie | 6,72 | 6,76 | 6,74 | 0,04 | | | #N/A | | #N/A | |
| | c | **T1** | 2,90 | 2,86 | 2,88 | -0,04 | | | #N/A | | #N/A | |
| | c | **T25** | 2,38 | 2,34 | 2,36 | -0,04 | | | #N/A | | #N/A | |
| | c | **T26** | 2,42 | 2,29 | 2,36 | -0,13 | | | #N/A | | #N/A | |
| | c | **T33** | 3,20 | 2,63 | 2,92 | -0,57 | | | #N/A | | #N/A | |
| | c | **T37** | 6,33 | 6,37 | 6,35 | 0,04 | | | #N/A | | #N/A | |
| | c | **T44** | 2,09 | 2,02 | 2,06 | -0,07 | | | #N/A | | #N/A | |
| Average category 4 | | | | | | **-0,02** | | | | | | |
| Standard deviation of differences category 4 | | | | | | **0,39** | | | | | | |
| 5 | a | **T35** | 3,74 | 3,92 | 3,83 | 0,18 | | | #N/A | | #N/A | |
| | a | **T71** | 2,26 | 1,84 | 2,05 | -0,42 | | | #N/A | | #N/A | |
| | a | **T91** | 3,73 | 3,97 | 3,85 | 0,24 | | | #N/A | | #N/A | |
| | a | **T92** | 1,85 | | #N/A | | | 0,00 | #N/A | | 0,93 | -1,85 |
| | a | **T95** | 2,12 | 1,90 | 2,01 | -0,22 | | | #N/A | | #N/A | |
| | a | **T97** | 1,24 | | #N/A | | | 0,00 | #N/A | | 0,62 | -1,24 |
| | a | 4143 | 1,78 | 2,15 | 1,96 | 0,37 | | | #N/A | | #N/A | |
| | b | **T70** | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | b | **T72** | 0,00 | | #N/A | | | 0,15 | #N/A | | 0,08 | 0,15 |
| | b | **T93** | 1,35 | 2,63 | 1,99 | 1,28 | | | #N/A | | #N/A | |
| | b | **T94** | 1,45 | 2,13 | 1,79 | 0,68 | | | #N/A | | #N/A | |
| | b | 379 | 6,94 | 5,93 | 6,43 | -1,01 | | | #N/A | | #N/A | |
| | b | 380 | 6,76 | 5,85 | 6,30 | -0,91 | | | #N/A | | #N/A | |
| | b | 381 | 3,27 | 3,23 | 3,25 | -0,04 | | | #N/A | | #N/A | |
| | c | **T17** | 3,79 | 2,68 | 3,24 | -1,11 | | | #N/A | | #N/A | |
| | c | **T18** | 3,95 | 2,88 | 3,42 | -1,07 | | | #N/A | | #N/A | |
| | c | **T19** | 3,00 | 3,00 | 3,00 | 0,00 | | | #N/A | | #N/A | |
| | c | **T20** | 4,04 | 2,34 | 3,19 | -1,70 | | | #N/A | | #N/A | |
| | c | **T40** | 3,78 | 3,59 | 3,69 | -0,19 | | | #N/A | | #N/A | |
| | c | **T41** | 4,78 | 5,29 | 5,04 | 0,51 | | | #N/A | | #N/A | |
| | c | **T67** | 4,68 | 4,74 | 4,71 | 0,06 | | | #N/A | | #N/A | |
| | c | **T68** | 4,78 | 4,82 | 4,80 | 0,04 | | | #N/A | | #N/A | |
| | c | **T69** | 4,93 | 4,96 | 4,95 | 0,03 | | | #N/A | | #N/A | |
| | c | 382 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| Average category 5 | | | | | | **-0,17** | | | | | | |
| Standard deviation of differences category 5 | | | | | | **0,72** | | | | | | |

| Category | Type | N°sample | Incubation : 72h | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Log cfu/g | | Mean | Difference | Alternative method | | Average <4 CFU/ plate | Difference <4 CFU/ plate | Average corrected values | Difference Corrected values |
| | | | Reference method | Alternative method | | | <4 CFU/ plate | <or> threshold corrected values | | | | |
| 6 | a | 3830 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | a | 3831 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | a | 3832 | 1,45 | | #N/A | | 1,30 | | 1,38 | -0,15 | #N/A | |
| | a | 3898 | 4,76 | 4,85 | 4,80 | 0,10 | | | #N/A | | #N/A | |
| | a | 3899 | 2,85 | 2,76 | 2,81 | -0,09 | | | #N/A | | #N/A | |
| | a | 3900 | 4,35 | 4,45 | 4,40 | 0,09 | | | #N/A | | #N/A | |
| | a | **6905** | 4,70 | 4,81 | 4,75 | 0,11 | | | #N/A | | #N/A | |
| | a | **6906** | 5,46 | 5,40 | 5,43 | -0,06 | | | #N/A | | #N/A | |
| | b | 3833 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | b | 3834 | 5,47 | | #N/A | | | 5,47 | #N/A | | 5,47 | 0,00 |
| | b | 3835 | 1,45 | | #N/A | | | 0,15 | #N/A | | 0,80 | -1,30 |
| | b | 3901 | 1,60 | 1,69 | 1,65 | 0,09 | | | #N/A | | #N/A | |
| | b | 3902 | 5,82 | 6,06 | | | | | | | | |
| | b | 4785 | 1,15 | | | | 1,00 | | | | | |
| | b | 4786 | 2,81 | 3,08 | | | | | | | | |
| | b | 4787 | 2,14 | 2,32 | | | | | | | | |
| | b | 4144 | 1,60 | | | | | 0,00 | | | | |
| | b | **6242** | 3,46 | 3,59 | | | | | | | | |
| | c | 3672 | 3,04 | 3,10 | | | | | | | | |
| | c | 3673 | 3,76 | 3,90 | | | | | | | | |
| | c | 3674 | 4,38 | 4,46 | | | | | | | | |
| | c | 3675 | 4,36 | 4,39 | | | | | | | | |
| | c | 4145 | 3,94 | 3,94 | | | | | | | | |
| Average category 6 | | | | | | **0,04** | | | | | | |
| Standard deviation of differences category 6 | | | | | | **0,09** | | | | | | |
| 7 | a | 3836 | 2,41 | 2,51 | 2,46 | 0,10 | | | #N/A | | #N/A | |
| | a | 3837 | 2,41 | 2,60 | 2,50 | 0,19 | | | #N/A | | #N/A | |
| | a | 3838 | 1,91 | 1,92 | 1,92 | 0,01 | | | #N/A | | #N/A | |
| | a | 3840 | 3,32 | 3,31 | 3,32 | -0,01 | | | #N/A | | #N/A | |
| | a | 4011 | 0,00 | | #N/A | | | 0,15 | #N/A | | 0,08 | 0,15 |
| | a | 4012 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4013 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4014 | 6,48 | | #N/A | | | 6,48 | #N/A | | 6,48 | 0,00 |
| | a | 4015 | 4,80 | 4,35 | 4,58 | -0,45 | | | #N/A | | #N/A | |
| | b | 3839 | 3,74 | 4,39 | 4,06 | 0,65 | | | #N/A | | #N/A | |
| | b | 4006 | 4,80 | 4,83 | 4,81 | 0,04 | | | #N/A | | #N/A | |
| | b | 4007 | 0,00 | | | | | 0,00 | | | | |
| | b | 4008 | 5,27 | | | | | 6,48 | | | | |
| | b | 4009 | 6,48 | | | | | 6,48 | | | | |
| | b | 4010 | 4,64 | 4,86 | | | | | | | | |
| | b | 4146 | 0,00 | | | | | 0,00 | | | | |
| | b | 4147 | 2,51 | 2,36 | | | | | | | | |
| | b | **6243** | 2,41 | 2,56 | | | | | | | | |
| | b | 6815 | 4,34 | 3,95 | | | | | | | | |
| | b | 6816 | 0,00 | | #N/A | | | 0,00 | #N/A | | 0,00 | 0,00 |
| | c | 3676 | 0,15 | | #N/A | | | 0,00 | #N/A | | 0,08 | -0,15 |
| | c | 3677 | 5,11 | 5,30 | 5,21 | 0,19 | | | #N/A | | #N/A | |
| | c | 3678 | 7,18 | 6,69 | 6,93 | -0,49 | | | #N/A | | #N/A | |
| | c | 3679 | 5,63 | 5,81 | 5,72 | 0,18 | | | #N/A | | #N/A | |
| | c | 4148 | 5,71 | 5,75 | 5,73 | 0,04 | | | #N/A | | #N/A | |
| | c | 4149 | 5,89 | 5,72 | 5,80 | -0,17 | | | #N/A | | #N/A | |
| Average category 7 | | | | | | **0,02** | | | | | | |
| Standard deviation of differences category 7 | | | | | | **0,30** | | | | | | |
| Average all categories | | | | Dall | | **-0,01** | | | | | | |
| Standard deviation of differences all categories | | | | SDAll | | **0,47** | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | n all | 285 | | | |
| β=95% | T(0,05;70)= | 1,968352158 | | | |
| | | 0,918169602 | Upper limit | Lower limit | Linear |
| | Average (minimal value) | **0,00** | 0,91 | -0,92 | -0,01 |
| | Average (maximale value) | **12,00** | 0,91 | -0,92 | -0,01 |

| Category | n | T(0,05;70)= | SD | ISO formula | Bias | Lower limit (95%) | Upper limit (95%) |
|---|---|---|---|---|---|---|---|
| 1 | 79 | 1,99 | 0,38 | 0,76 | -0,04 | -0,80 | 0,72 |
| 2 | 39 | 2,02 | 0,38 | 0,78 | -0,04 | -0,82 | 0,74 |
| 3 | 22 | 2,08 | 0,78 | 1,66 | 0,40 | -1,27 | 2,06 |
| 4 | 89 | 1,99 | 0,39 | 0,77 | -0,02 | -0,79 | 0,75 |
| 5 | 19 | 2,10 | 0,72 | 1,56 | -0,17 | -1,73 | 1,38 |
| 6 | 15 | 2,14 | 0,09 | 0,20 | 0,04 | -0,17 | 0,24 |
| 7 | 16 | 2,13 | 0,30 | 0,66 | 0,02 | -0,64 | 0,68 |
| **All categories** | **152** | **1,98** | **0,47** | **0,92** | **-0,01** | **-0,93** | **0,92** |

# Appendix 6 - Accuracy profile study: raw data

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 48h ± 3h at 30°C ± 1°C | | | | 72h ± 3h at 30°C ± 1°C | | | |
| | | | | Dilution | cfu/ plate | cfu/g | log cfu/g | Dilution | cfu/ Petrifilm test | cfu/g | log cfu/g | Dilution | cfu/ Petrifilm test | cfu/g | log cfu/g |
| **Pork pâté** Batch 1 Aerobic mesophilic flora: 20 CFU/g | *Enterobacter agglomerans* 135 | 1 | 6862 | 10 | 34 | 350 | 2,54 | 10 | 31 | 330 | 2,52 | 10 | 33 | 350 | 2,54 |
| | | | | 100 | 4 | | | 100 | 5 | | | 100 | 5 | | |
| | | | 6863 | 10 | 46 | 430 | 2,63 | 10 | 36 | 380 | 2,58 | 10 | 36 | 380 | 2,58 |
| | | | | 100 | 1 | | | 100 | 6 | | | 100 | 6 | | |
| | | | 6864 | 10 | 27 | 260 | 2,41 | 10 | 42 | 430 | 2,63 | 10 | 42 | 430 | 2,63 |
| | | | | 100 | 1 | | | 100 | 5 | | | 100 | 5 | | |
| | | | 6865 | 10 | 27 | 260 | 2,41 | 10 | 35 | 350 | 2,54 | 10 | 37 | 360 | 2,56 |
| | | | | 100 | 2 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6866 | 10 | 29 | 320 | 2,51 | 10 | 44 | 430 | 2,63 | 10 | 44 | 430 | 2,63 |
| | | | | 100 | 6 | | | 100 | 3 | | | 100 | 3 | | |
| | | 2 | 4823 | 100 | 38 | 3800 | 3,58 | 100 | 32 | 3400 | 3,53 | 100 | 32 | 3400 | 3,53 |
| | | | | 1000 | 4 | | | 1000 | 5 | | | 1000 | 5 | | |
| | | | 4824 | 100 | 45 | 4300 | 3,63 | 100 | 44 | 4300 | 3,63 | 100 | 44 | 4300 | 3,63 |
| | | | | 1000 | 2 | | | 1000 | 3 | | | 1000 | 3 | | |
| | | | 4825 | 100 | 46 | 4800 | 3,68 | 100 | 46 | 4700 | 3,67 | 100 | 46 | 4700 | 3,67 |
| | | | | 1000 | 7 | | | 1000 | 6 | | | 1000 | 6 | | |
| | | | 4826 | 100 | 28 | 2700 | 3,43 | 100 | 41 | 4400 | 3,64 | 100 | 41 | 4400 | 3,64 |
| | | | | 1000 | 2 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | | 4827 | 100 | 50 | 4700 | 3,67 | 100 | 44 | 4400 | 3,64 | 100 | 44 | 4400 | 3,64 |
| | | | | 1000 | 2 | | | 1000 | 4 | | | 1000 | 4 | | |
| | | 3 | 4833 | 10000 | 40 | 390000 | 5,59 | 10000 | 23 | 250000 | 5,40 | 10000 | 23 | 250000 | 5,40 |
| | | | | 100000 | 3 | | | 100000 | 5 | | | 100000 | 5 | | |
| | | | 4834 | 10000 | 33 | 320000 | 5,51 | 10000 | 42 | 410000 | 5,61 | 10000 | 42 | 410000 | 5,61 |
| | | | | 100000 | 2 | | | 100000 | 3 | | | 100000 | 3 | | |
| | | | 4835 | 10000 | 24 | 250000 | 5,40 | 10000 | 30 | 270000 | 5,43 | 10000 | 30 | 270000 | 5,43 |
| | | | | 100000 | 3 | | | 100000 | 0 | | | 100000 | 0 | | |
| | | | 4836 | 10000 | 27 | 320000 | 5,51 | 10000 | 52 | 470000 | 5,67 | 10000 | 52 | 470000 | 5,67 |
| | | | | 100000 | 8 | | | 100000 | 0 | | | 100000 | 0 | | |
| | | | 4837 | 10000 | 27 | 260000 | 5,41 | 10000 | 36 | 340000 | 5,53 | 10000 | 36 | 340000 | 5,53 |
| | | | | 100000 | 2 | | | 100000 | 1 | | | 100000 | 1 | | |
| **Pork pâté** Batch 2 Aerobic mesophilic flora: 0 CFU/g | | 1 | 6867 | 10 | 45 | 460 | 2,66 | 10 | 37 | 410 | 2,61 | 10 | 37 | 410 | 2,61 |
| | | | | 100 | 5 | | | 100 | 8 | | | 100 | 8 | | |
| | | | 6868 | 10 | 32 | 320 | 2,51 | 10 | 39 | 400 | 2,60 | 10 | 39 | 400 | 2,60 |
| | | | | 100 | 3 | | | 100 | 5 | | | 100 | 5 | | |
| | | | 6869 | 10 | 24 | 260 | 2,41 | 10 | 40 | 450 | 2,65 | 10 | 40 | 460 | 2,66 |
| | | | | 100 | 4 | | | 100 | 10 | | | 100 | 10 | | |
| | | | 6870 | 10 | 39 | 410 | 2,61 | 10 | 40 | 420 | 2,62 | 10 | 40 | 420 | 2,62 |
| | | | | 100 | 6 | | | 100 | 6 | | | 100 | 6 | | |
| | | | 6871 | 10 | 34 | 360 | 2,56 | 10 | 36 | 360 | 2,56 | 10 | 36 | 360 | 2,56 |
| | | | | 100 | 5 | | | 100 | 3 | | | 100 | 3 | | |
| | | 2 | 4848 | 100 | 33 | 3100 | 3,49 | 100 | 35 | 3300 | 3,52 | 100 | 35 | 3300 | 3,52 |
| | | | | 1000 | 1 | | | 1000 | 1 | | | 1000 | 1 | | |
| | | | 4849 | 100 | 36 | 3300 | 3,52 | 100 | 38 | 3900 | 3,59 | 100 | 38 | 3900 | 3,59 |
| | | | | 1000 | 0 | | | 1000 | 5 | | | 1000 | 5 | | |
| | | | 4850 | 100 | 36 | 3700 | 3,57 | 100 | 47 | 4500 | 3,65 | 100 | 47 | 4500 | 3,65 |
| | | | | 1000 | 5 | | | 1000 | 2 | | | 1000 | 2 | | |
| | | | 4851 | 100 | 27 | 3000 | 3,48 | 100 | 35 | 3300 | 3,52 | 100 | 35 | 3300 | 3,52 |
| | | | | 1000 | 6 | | | 1000 | 1 | | | 1000 | 1 | | |
| | | | 4852 | 100 | 31 | 2900 | 3,46 | 100 | 37 | 3500 | 3,54 | 100 | 37 | 3500 | 3,54 |
| | | | | 1000 | 1 | | | 1000 | 2 | | | 1000 | 2 | | |
| | | 3 | 4858 | 10000 | 34 | 330000 | 5,52 | 10000 | 31 | 320000 | 5,51 | 10000 | 31 | 320000 | 5,51 |
| | | | | 100000 | 2 | | | 100000 | 4 | | | 100000 | 4 | | |
| | | | 4859 | 10000 | 33 | 330000 | 5,52 | 10000 | 36 | 340000 | 5,53 | 10000 | 36 | 340000 | 5,53 |
| | | | | 100000 | 3 | | | 100000 | 1 | | | 100000 | 1 | | |
| | | | 4860 | 10000 | 26 | 250000 | 5,40 | 10000 | 34 | 350000 | 5,54 | 10000 | 34 | 350000 | 5,54 |
| | | | | 100000 | 1 | | | 100000 | 4 | | | 100000 | 4 | | |
| | | | 4861 | 10000 | 27 | 250000 | 5,40 | 10000 | 43 | 430000 | 5,63 | 10000 | 43 | 430000 | 5,63 |
| | | | | 100000 | 0 | | | 100000 | 4 | | | 100000 | 4 | | |
| | | | 4862 | 10000 | 20 | 220000 | 5,34 | 10000 | 29 | 260000 | 5,41 | 10000 | 29 | 260000 | 5,41 |
| | | | | 100000 | 4 | | | 100000 | 0 | | | 100000 | 0 | | |

♦ Analyses performed according to the COFRAC accreditation

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate 72h ± 3h at 30°C +-1 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Dilution | cfu/plate | cfu/g | log cfu/g | Dilution | cfu/ Petrifilm test | cfu/g | log cfu/g |
| **Pasteurized milk** Batch 1 Aerobic mesophilic flora: 0 CFU/g | *Staphylococcus aureus* 501 | 1 | 4975 | 10 | 8 | 80 | 1,90 | 10 | 37 | 360 | 2,56 |
| | | | | 100 | 4 | Ne | Ne | 100 | 2 | | |
| | | | 4976 | 10 | 24 | 260 | 2,41 | 10 | 57 | 550 | 2,74 |
| | | | | 100 | 4 | | | 100 | 3 | | |
| | | | 4977 | 10 | 8 | 80 | 1,90 | 10 | 39 | 380 | 2,58 |
| | | | | 100 | 0 | Ne | Ne | 100 | 3 | | |
| | | | 4978 | 10 | 11 | 120 | 2,08 | 10 | 41 | 400 | 2,60 |
| | | | | 100 | 2 | | | 100 | 3 | | |
| | | | 4979 | 10 | 14 | 190 | 2,28 | 10 | 35 | 410 | 2,61 |
| | | | | 100 | 7 | | | 100 | 10 | | |
| | | 2 | 4980 | 100 | 69 | 6500 | 3,81 | 100 | 106 | 11000 | 4,04 |
| | | | | 1000 | 2 | | | 1000 | 16 | | |
| | | | 4981 | 100 | 60 | 6000 | 3,78 | 100 | 122 | 13000 | 4,11 |
| | | | | 1000 | 6 | | | 1000 | 16 | | |
| | | | 4982 | 100 | 50 | 5300 | 3,72 | 100 | 127 | 13000 | 4,11 |
| | | | | 1000 | 8 | | | 1000 | 12 | | |
| | | | 4983 | 100 | 69 | 7300 | 3,86 | 100 | 143 | 15000 | 4,18 |
| | | | | 1000 | 11 | | | 1000 | 25 | | |
| | | | 4984 | 100 | 50 | 5500 | 3,74 | 100 | 132 | 13000 | 4,11 |
| | | | | 1000 | 11 | | | 1000 | 15 | | |
| | | 3 | 4985 | 10000 | 54 | 540000 | 5,73 | 10000 | 117 | 1100000 | 6,04 |
| | | | | 100000 | 5 | | | 100000 | 8 | | |
| | | | 4986 | 10000 | 57 | 550000 | 5,74 | 10000 | 115 | 1200000 | 6,08 |
| | | | | 100000 | 4 | | | 100000 | 12 | | |
| | | | 4987 | 10000 | 34 | 360000 | 5,56 | 10000 | 124 | 1200000 | 6,08 |
| | | | | 100000 | 6 | | | 100000 | 10 | | |
| | | | 4988 | 10000 | 71 | 670000 | 5,83 | 10000 | 149 | 1500000 | 6,18 |
| | | | | 100000 | 3 | | | 100000 | 12 | | |
| | | | 4989 | 10000 | 62 | 610000 | 5,79 | 10000 | 127 | 1300000 | 6,11 |
| | | | | 100000 | 5 | | | 100000 | 13 | | |
| **Pasteurized milk** Batch 2 Aerobic mesophilic flora: 10 CFU/g | | 1 | 4990 | 10 | 14 | 160 | 2,20 | 10 | 48 | 480 | 2,68 |
| | | | | 100 | 3 | | | 100 | 5 | | |
| | | | 4991 | 10 | 20 | 210 | 2,32 | 10 | 44 | 420 | 2,62 |
| | | | | 100 | 3 | | | 100 | 2 | | |
| | | | 4992 | 10 | 19 | 180 | 2,26 | 10 | 41 | 410 | 2,61 |
| | | | | 100 | 1 | | | 100 | 4 | | |
| | | | 4993 | 10 | 19 | 200 | 2,30 | 10 | 43 | 420 | 2,62 |
| | | | | 100 | 3 | | | 100 | 3 | | |
| | | | 4994 | 10 | 19 | 180 | 2,26 | 10 | 30 | 300 | 2,48 |
| | | | | 100 | 1 | | | 100 | 3 | | |
| | | 2 | 4995 | 100 | 68 | 3100 | 3,49 | 100 | 119 | 12000 | 4,08 |
| | | | | 1000 | 4 | | | 1000 | 11 | | |
| | | | 4996 | 100 | 48 | 5200 | 3,72 | 100 | 140 | 15000 | 4,18 |
| | | | | 1000 | 9 | | | 1000 | 23 | | |
| | | | 4997 | 100 | 61 | 6000 | 3,78 | 100 | 123 | 12000 | 4,08 |
| | | | | 1000 | 5 | | | 1000 | 10 | | |
| | | | 4998 | 100 | 74 | 6900 | 3,84 | 100 | 125 | 13000 | 4,11 |
| | | | | 1000 | 2 | | | 1000 | 19 | | |
| | | | 4999 | 100 | 95 | 9100 | 3,96 | 100 | 114 | 12000 | 4,08 |
| | | | | 1000 | 5 | | | 1000 | 15 | | |
| | | 3 | 5000 | 10000 | 93 | 910000 | 5,96 | 10000 | 137 | 1400000 | 6,15 |
| | | | | 100000 | 7 | | | 100000 | 15 | | |
| | | | 5001 | 10000 | 53 | 550000 | 5,74 | 10000 | 138 | 1300000 | 6,11 |
| | | | | 100000 | 8 | | | 100000 | 10 | | |
| | | | 5002 | 10000 | 68 | 660000 | 5,82 | 10000 | 116 | 1200000 | 6,08 |
| | | | | 100000 | 5 | | | 100000 | 17 | | |
| | | | 5003 | 10000 | 56 | 550000 | 5,74 | 10000 | 130 | 1300000 | 6,11 |
| | | | | 100000 | 4 | | | 100000 | 9 | | |
| | | | 5004 | 10000 | 96 | 960000 | 5,98 | 10000 | 134 | 1400000 | 6,15 |
| | | | | 100000 | 10 | | | 100000 | 16 | | |

♦ Analyses performed according to the COFRAC accreditation

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 48h ± 3h at 30°C ± 1°C | | | | 72h ± 3h at 30°C ± 1°C | | | |
| | | | | Dilution | cfu/plate | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g |
| **Ready to eat mackerel** Batch 1 Aerobic mesophilic flora: <10 CFU/g | *Listeria monocytogenes* Ad2599 | 1 | 5168 | 10 | 18 | 180 | 2,26 | 10 | 20 | 220 | 2,34 | 10 | 21 | 230 | 2,36 |
| | | | | 100 | 2 | | | 100 | 4 | | | 100 | 4 | | |
| | | | 5169 | 10 | 23 | 210 | 2,32 | 10 | 27 | 260 | 2,41 | 10 | 27 | 260 | 2,41 |
| | | | | 100 | 0 | | | 100 | 1 | | | 100 | 2 | | |
| | | | 5170 | 10 | 18 | 170 | 2,23 | 10 | 18 | 170 | 2,23 | 10 | 18 | 170 | 2,23 |
| | | | | 100 | 1 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 5171 | 10 | 16 | 150 | 2,18 | 10 | 23 | 220 | 2,34 | 10 | 23 | 220 | 2,34 |
| | | | | 100 | 1 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 5172 | 10 | 21 | 220 | 2,34 | 10 | 20 | 190 | 2,28 | 10 | 20 | 190 | 2,28 |
| | | | | 100 | 3 | | | 100 | 1 | | | 100 | 1 | | |
| | | 2 | 5173 | 100 | 68 | 7200 | 3,86 | 100 | 90 | 8600 | 3,93 | 100 | 90 | 8600 | 3,93 |
| | | | | 1000 | 11 | | | 1000 | 5 | | | 1000 | 5 | | |
| | | | 5174 | 100 | 70 | 6800 | 3,83 | 100 | 72 | 6900 | 3,84 | 100 | 72 | 6900 | 3,84 |
| | | | | 1000 | 5 | | | 1000 | 4 | | | 1000 | 4 | | |
| | | | 5175 | 100 | 81 | 7900 | 3,90 | 100 | 85 | 8700 | 3,94 | 100 | 85 | 8700 | 3,94 |
| | | | | 1000 | 6 | | | 1000 | 11 | | | 1000 | 11 | | |
| | | | 5176 | 100 | 78 | 7700 | 3,89 | 100 | 86 | 8500 | 3,93 | 100 | 86 | 8500 | 3,93 |
| | | | | 1000 | 7 | | | 1000 | 8 | | | 1000 | 8 | | |
| | | | 5177 | 100 | 57 | 5700 | 3,76 | 100 | 72 | 6900 | 3,84 | 100 | 72 | 6900 | |
| | | | | 1000 | 6 | | | 1000 | 4 | | | 1000 | 4 | | N' |
| | | 3 | 5178 | 10000 | 58 | 600000 | 5,78 | 10000 | 80 | 780000 | 5,89 | 10000 | 81 | 790000 | 5,90 |
| | | | | 100000 | 8 | | | 100000 | 6 | | | 100000 | 6 | | |
| | | | 5179 | 10000 | 68 | 720000 | 5,86 | 10000 | 84 | 830000 | 5,92 | 10000 | 84 | 830000 | 5,92 |
| | | | | 100000 | 11 | | | 100000 | 7 | | | 100000 | 7 | | |
| | | | 5180 | 10000 | 62 | 600000 | 5,78 | 10000 | 84 | 830000 | 5,92 | 10000 | 84 | 870000 | 5,94 |
| | | | | 100000 | 4 | | | 100000 | 12 | | | 100000 | 12 | | |
| | | | 5181 | 10000 | 59 | 550000 | 5,74 | 10000 | 72 | 730000 | 5,86 | 10000 | 72 | 730000 | 5,86 |
| | | | | 100000 | 2 | | | 100000 | 8 | | | 100000 | 8 | | |
| | | | 5182 | 10000 | 55 | 550000 | 5,74 | 10000 | 76 | 760000 | 5,88 | 10000 | 76 | 760000 | 5,88 |
| | | | | 100000 | 6 | | | 100000 | 8 | | | 100000 | 8 | | |
| **Ready to eat mackerel** Batch 2 Aerobic mesophilic flora: <10 CFU/g | | 1 | 4227 | 10 | 20 | 220 | 2,34 | 10 | 16 | 160 | 2,20 | 10 | 17 | 160 | 2,20 |
| | | | | 100 | 4 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 4228 | 10 | 15 | 150 | 2,18 | 10 | 12 | 130 | 2,11 | 10 | 12 | 130 | 2,11 |
| | | | | 100 | 1 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 4229 | 10 | 19 | 170 | 2,23 | 10 | 6 | 60 | 1,78 Ne | 10 | 6 | 60 | 1,78 Ne |
| | | | | 100 | 0 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 4230 | 10 | 15 | 160 | 2,20 | 10 | 11 | 130 | 2,11 | 10 | 11 | 130 | 2,11 |
| | | | | 100 | 2 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 4231 | 10 | 12 | 140 | 2,15 | 10 | 16 | 160 | 2,20 | 10 | 17 | 170 | 2,23 |
| | | | | 100 | 3 | | | 100 | 2 | | | 100 | 2 | | |
| | | 2 | 4232 | 100 | 122 | 3100 | 3,49 | 100 | 122 | 12000 | 4,08 | 100 | 122 | 12000 | 4,08 |
| | | | | 1000 | 5 | | | 1000 | 15 | | | 1000 | 15 | | |
| | | | 4233 | 100 | 123 | 12000 | 4,08 | 100 | 149 | 14000 | 4,15 | 100 | 149 | 14000 | 4,15 |
| | | | | 1000 | 9 | | | 1000 | 9 | | | 1000 | 9 | | |
| | | | 4234 | 100 | 121 | 12000 | 4,08 | 100 | 145 | 15000 | 4,18 | 100 | 145 | 15000 | 4,18 |
| | | | | 1000 | 12 | | | 1000 | 17 | | | 1000 | 17 | | |
| | | | 4235 | 100 | 102 | 10000 | 4,00 | 100 | 112 | 11000 | 4,04 | 100 | 112 | 11000 | 4,04 |
| | | | | 1000 | 11 | | | 1000 | 10 | | | 1000 | 10 | | |
| | | | 4236 | 100 | 107 | 10000 | 4,00 | 100 | 140 | 14000 | 4,15 | 100 | 140 | 14000 | 4,15 |
| | | | | 1000 | 7 | | | 1000 | 14 | | | 1000 | 14 | | |
| | | 3 | 4237 | 10000 | 94 | 970000 | 5,99 | 10000 | 105 | 1000000 | 6,00 | 10000 | 105 | 1000000 | 6,00 |
| | | | | 100000 | 13 | | | 100000 | 7 | | | 100000 | 7 | | |
| | | | 4238 | 10000 | 74 | 690000 | 5,84 | 10000 | 102 | 1000000 | 6,00 | 10000 | 103 | 1000000 | 6,00 |
| | | | | 100000 | 2 | | | 100000 | 10 | | | 100000 | 10 | | |
| | | | 4239 | 10000 | 84 | 870000 | 5,94 | 10000 | 98 | 970000 | 5,99 | 10000 | 98 | 970000 | 5,99 |
| | | | | 100000 | 12 | | | 100000 | 9 | | | 100000 | 9 | | |
| | | | 4240 | 10000 | 117 | 1200000 | 6,08 | 10000 | 116 | 1100000 | 6,04 | 10000 | 116 | 1100000 | 6,04 |
| | | | | 100000 | 16 | | | 100000 | 10 | | | 100000 | 10 | | |
| | | | 4241 | 10000 | 82 | 830000 | 5,92 | 10000 | 92 | 940000 | 5,97 | 10000 | 92 | 940000 | 5,97 |
| | | | | 100000 | 9 | | | 100000 | 11 | | | 100000 | 11 | | |

♦ Analyses performed according to the COFRAC accreditation

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 48h ± 3h at 30°C ± 1°C | | | | 72h ± 3h at 30° ± 1°C | | | |
| | | | | Dilution | cfu/plate | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g |
| **Guacamole** Batch 1 Aerobic mesophilic flora: 30 CFU/g | *Enterococcus gallinarum* Ad1145 | 1 | 6872 | 10 | 25 | 250 | 2,40 | 10 | 14 | 160 | 2,20 | 10 | 22 | 230 | 2,36 |
| | | | | 100 | 2 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6873 | 10 | 29 | 300 | 2,48 | 10 | 11 | 140 | 2,15 | 10 | 13 | 160 | 2,20 |
| | | | | 100 | 4 | | | 100 | 4 | | | 100 | 4 | | |
| | | | 6874 | 10 | 20 | 190 | 2,28 | 10 | 22 | 210 | 2,32 | 10 | 26 | 250 | 2,40 |
| | | | | 100 | 1 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 6875 | 10 | 16 | 150 | 2,18 | 10 | 23 | 220 | 2,34 | 10 | 27 | 260 | 2,41 |
| | | | | 100 | 0 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 6876 | 10 | 23 | 230 | 2,36 | 10 | 21 | 210 | 2,32 | 10 | 24 | 250 | 2,40 |
| | | | | 100 | 2 | | | 100 | 2 | | | 100 | 3 | | |
| | | 2 | 4387 | 1000 | 18 | 17000 | 4,23 | 1000 | 41 | 39000 | 4,59 | 1000 | 41 | 39000 | 4,59 |
| | | | | 10000 | 1 | | | 10000 | 2 | | | 10000 | 2 | | |
| | | | 4388 | 1000 | 37 | 35000 | 4,54 | 1000 | 47 | 46000 | 4,66 | 1000 | 47 | 46000 | 4,66 |
| | | | | 10000 | 2 | | | 10000 | 4 | | | 10000 | 4 | | |
| | | | 4389 | 1000 | 39 | 39000 | 4,59 | 1000 | 50 | 50000 | 4,70 | 1000 | 50 | 50000 | 4,70 |
| | | | | 10000 | 4 | | | 10000 | 5 | | | 10000 | 5 | | |
| | | | 4390 | 1000 | 38 | 37000 | 4,57 | 1000 | 40 | 38000 | 4,58 | 1000 | 40 | 38000 | 4,58 |
| | | | | 10000 | 3 | | | 10000 | 2 | | | 10000 | 2 | | |
| | | | 4391 | 1000 | 34 | 35000 | 4,54 | 1000 | 39 | 37000 | 4,57 | 1000 | 39 | 37000 | 4,57 |
| | | | | 10000 | 5 | | | 10000 | 2 | | | 10000 | 2 | | |
| | | 3 | 4392 | 100000 | 45 | 4500000 | 6,65 | 100000 | 35 | 3500000 | 6,54 | 100000 | 35 | 3500000 | 6,54 |
| | | | | 1000000 | 5 | | | 1000000 | 3 | | | 1000000 | 3 | | |
| | | | 4393 | 100000 | 40 | 4000000 | 6,60 | 100000 | 36 | 3500000 | 6,54 | 100000 | 37 | 3500000 | 6,54 |
| | | | | 1000000 | 4 | | | 1000000 | 2 | | | 1000000 | 2 | | |
| | | | 4394 | 100000 | 36 | 3500000 | 6,54 | 100000 | 41 | 4000000 | 6,60 | 100000 | 41 | 4000000 | 6,60 |
| | | | | 1000000 | 2 | | | 1000000 | 3 | | | 1000000 | 3 | | |
| | | | 4395 | 100000 | 30 | 3000000 | 6,48 | 100000 | 34 | 3400000 | 6,53 | 100000 | 34 | 3400000 | 6,53 |
| | | | | 1000000 | 3 | | | 1000000 | 3 | | | 1000000 | 3 | | |
| | | | 4396 | 100000 | 40 | 3800000 | 6,58 | 100000 | 58 | 5700000 | 6,76 | 100000 | 58 | 5700000 | 6,76 |
| | | | | 1000000 | 2 | | | 1000000 | 5 | | | 1000000 | 5 | | |
| **Guacamole** Batch 2 Aerobic mesophilic flora: 100 CFU/g | | 1 | 6877 | 10 | 20 | 230 | 2,36 | 10 | 38 | 400 | 2,60 | 10 | 40 | 420 | 2,62 |
| | | | | 100 | 5 | | | 100 | 6 | | | 100 | 6 | | |
| | | | 6878 | 10 | 19 | 200 | 2,30 | 10 | 35 | 340 | 2,53 | 10 | 35 | 340 | 2,53 |
| | | | | 100 | 3 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 6879 | 10 | 24 | 240 | 2,38 | 10 | 17 | 170 | 2,23 | 10 | 19 | 190 | 2,28 |
| | | | | 100 | 2 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 6880 | 10 | 20 | 230 | 2,36 | 10 | 23 | 210 | 2,32 | 10 | 26 | 240 | 2,38 |
| | | | | 100 | 5 | | | 100 | 0 | | | 100 | 0 | | |
| | | | 6881 | 10 | 21 | 210 | 2,32 | 10 | 34 | 340 | 2,53 | 10 | 36 | 360 | 2,56 |
| | | | | 100 | 2 | | | 100 | 3 | | | 100 | 3 | | |
| | | 2 | 4402 | 1000 | 39 | 3100 | 3,49 | 1000 | 37 | 35000 | 4,54 | 1000 | 37 | 35000 | 4,54 |
| | | | | 10000 | 4 | | | 10000 | 2 | | | 10000 | 2 | | |
| | | | 4403 | 1000 | 28 | 30000 | 4,48 | 1000 | 39 | 40000 | 4,60 | 1000 | 39 | 40000 | 4,60 |
| | | | | 10000 | 5 | | | 10000 | 5 | | | 10000 | 5 | | |
| | | | 4404 | 1000 | 37 | 37000 | 4,57 | 1000 | 49 | 48000 | 4,68 | 1000 | 49 | 48000 | 4,68 |
| | | | | 10000 | 4 | | | 10000 | 4 | | | 10000 | 4 | | |
| | | | 4405 | 1000 | 39 | 37000 | 4,57 | 1000 | 46 | 46000 | 4,66 | 1000 | 46 | 46000 | 4,66 |
| | | | | 10000 | 2 | | | 10000 | 5 | | | 10000 | 5 | | |
| | | | 4406 | 1000 | 27 | 29000 | 4,46 | 1000 | 29 | 29000 | 4,46 | 1000 | 29 | 29000 | 4,46 |
| | | | | 10000 | 5 | | | 10000 | 3 | | | 10000 | 3 | | |
| | | 3 | 4407 | 100000 | 26 | 2500000 | 6,40 | 100000 | 43 | 4400000 | 6,64 | 100000 | 43 | 4400000 | 6,64 |
| | | | | 1000000 | 1 | | | 1000000 | 5 | | | 1000000 | 5 | | |
| | | | 4408 | 100000 | 31 | 3200000 | 6,51 | 100000 | 52 | 5300000 | 6,72 | 100000 | 52 | 5300000 | 6,72 |
| | | | | 1000000 | 4 | | | 1000000 | 6 | | | 1000000 | 6 | | |
| | | | 4409 | 100000 | 34 | 3200000 | 6,51 | 100000 | 45 | 4500000 | 6,65 | 100000 | 45 | 4500000 | 6,65 |
| | | | | 1000000 | 1 | | | 1000000 | 5 | | | 1000000 | 5 | | |
| | | | 4410 | 100000 | 43 | 4100000 | 6,61 | 100000 | 38 | 3800000 | 6,58 | 100000 | 38 | 3800000 | 6,58 |
| | | | | 1000000 | 2 | | | 1000000 | 4 | | | 1000000 | 4 | | |
| | | | 4411 | 100000 | 35 | 3600000 | 6,56 | 100000 | 48 | 4800000 | 6,68 | 100000 | 48 | 4800000 | 6,68 |
| | | | | 1000000 | 5 | | | 1000000 | 5 | | | 1000000 | 5 | | |

♦ Analyses performed according to the COFRAC accreditation

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 48h ± 3h at 30°C ± 1°C | | | | 72h ± 3h at 30°C ± 1°C | | | |
| | | | | Dilution | cfu/plate | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g |
| **Whole pasteurized liquid egg** Batch 1 Aerobic mesophilic flora: 0 CFU/g | *Serratia liquefaciens* 26 | 1 | 6428 | 10 | 15 | 160 | 2,20 | 10 | 25 | 250 | 2,40 | 10 | 25 | 250 | 2,40 |
| | | | | 100 | 3 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 6429 | 10 | 19 | 180 | 2,26 | 10 | 26 | 260 | 2,41 | 10 | 26 | 260 | 2,41 |
| | | | | 100 | 1 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6430 | 10 | 21 | 230 | 2,36 | 10 | 26 | 250 | 2,40 | 10 | 26 | 250 | 2,40 |
| | | | | 100 | 4 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 6431 | 10 | 19 | 170 | 2,23 | 10 | 21 | 220 | 2,34 | 10 | 23 | 240 | 2,38 |
| | | | | 100 | 0 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6432 | 10 | 27 | 250 | 2,40 | 10 | 20 | 200 | 2,30 | 10 | 20 | 200 | 2,30 |
| | | | | 100 | 0 | | | 100 | 2 | | | 100 | 2 | | |
| | | 2 | 5098 | 100 | 78 | 8000 | 3,90 | 100 | 94 | 9400 | 3,97 | 100 | 95 | 9500 | 3,98 |
| | | | | 1000 | 10 | | | 1000 | 9 | | | 1000 | 9 | | |
| | | | 5099 | 100 | 77 | 7600 | 3,88 | 100 | 108 | 10000 | 4,00 | 100 | 110 | 11000 | 4,04 |
| | | | | 1000 | 7 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | | 5100 | 100 | 88 | 8800 | 3,94 | 100 | 91 | 8800 | 3,94 | 100 | 91 | 8900 | 3,95 |
| | | | | 1000 | 9 | | | 1000 | 6 | | | 1000 | 7 | | |
| | | | 5101 | 100 | 75 | 7700 | 3,89 | 100 | 88 | 8400 | 3,92 | 100 | 89 | 8500 | 3,93 |
| | | | | 1000 | 10 | | | 1000 | 4 | | | 1000 | 4 | | |
| | | | 5102 | 100 | 79 | 8000 | 3,90 | 100 | 95 | 9500 | 3,98 | 100 | 95 | 9500 | 3,98 |
| | | | | 1000 | 9 | | | 1000 | 9 | | | 1000 | 9 | | |
| | | 3 | 5108 | 10000 | 78 | 750000 | 5,88 | 10000 | 73 | 750000 | 5,88 | 10000 | 73 | 750000 | 5,88 |
| | | | | 100000 | 5 | | | 100000 | 9 | | | 100000 | 9 | | |
| | | | 5109 | 10000 | 58 | 560000 | 5,75 | 10000 | 78 | 780000 | 5,89 | 10000 | 80 | 800000 | 5,90 |
| | | | | 100000 | 4 | | | 100000 | 8 | | | 100000 | 8 | | |
| | | | 5110 | 10000 | 50 | 510000 | 5,71 | 10000 | 60 | 630000 | 5,80 | 10000 | 60 | 630000 | 5,80 |
| | | | | 100000 | 6 | | | 100000 | 9 | | | 100000 | 9 | | |
| | | | 5111 | 10000 | 64 | 600000 | 5,78 | 10000 | 82 | 820000 | 5,91 | 10000 | 82 | 820000 | 5,91 |
| | | | | 100000 | 2 | | | 100000 | 8 | | | 100000 | 8 | | |
| | | | 5112 | 10000 | 68 | 670000 | 5,83 | 10000 | 52 | 540000 | 5,73 | 10000 | 57 | 590000 | 5,77 |
| | | | | 100000 | 6 | | | 100000 | 7 | | | 100000 | 8 | | |
| **Whole pasteurized liquid egg** Batch 2 Aerobic mesophilic flora: 0 CFU/g | | 1 | 6857 | 10 | 16 | 160 | 2,20 | 10 | 25 | 250 | 2,40 | 10 | 26 | 260 | 2,41 |
| | | | | 100 | 2 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 6858 | 10 | 23 | 230 | 2,36 | 10 | 25 | 260 | 2,41 | 10 | 25 | 260 | 2,41 |
| | | | | 100 | 2 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6859 | 10 | 21 | 220 | 2,34 | 10 | 30 | 310 | 2,49 | 10 | 30 | 310 | 2,49 |
| | | | | 100 | 3 | | | 100 | 4 | | | 100 | 4 | | |
| | | | 6860 | 10 | 17 | 160 | 2,20 | 10 | 18 | 190 | 2,28 | 10 | 21 | 220 | 2,34 |
| | | | | 100 | 1 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 6861 | 10 | 28 | 280 | 2,45 | 10 | 25 | 250 | 2,40 | 10 | 25 | 250 | 2,40 |
| | | | | 100 | 3 | | | 100 | 2 | | | 100 | 2 | | |
| | | 2 | 5123 | 100 | 82 | 3100 | 3,49 | 100 | 95 | 9700 | 3,99 | 100 | 96 | 9800 | 3,99 |
| | | | | 1000 | 10 | | | 1000 | 12 | | | 1000 | 12 | | |
| | | | 5124 | 100 | 51 | 5300 | 3,72 | 100 | 90 | 8900 | 3,95 | 100 | 90 | 8900 | 3,95 |
| | | | | 1000 | 7 | | | 1000 | 8 | | | 1000 | 8 | | |
| | | | 5125 | 100 | 62 | 6700 | 3,83 | 100 | 70 | 7300 | 3,86 | 100 | 70 | 7300 | 3,86 |
| | | | | 1000 | 12 | | | 1000 | 10 | | | 1000 | 10 | | |
| | | | 5126 | 100 | 52 | 5000 | 3,70 | 100 | 79 | 7600 | 3,88 | 100 | 79 | 7600 | 3,88 |
| | | | | 1000 | 3 | | | 1000 | 5 | | | 1000 | 5 | | |
| | | | 5127 | 100 | 80 | 7900 | 3,90 | 100 | 103 | 10000 | 4,00 | 100 | 104 | 10000 | 4,00 |
| | | | | 1000 | 7 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | 3 | 5133 | 10000 | 56 | 550000 | 5,74 | 10000 | 56 | 550000 | 5,74 | 10000 | 56 | 550000 | 5,74 |
| | | | | 100000 | 5 | | | 100000 | 4 | | | 100000 | 5 | | |
| | | | 5134 | 10000 | 59 | 550000 | 5,74 | 10000 | 58 | 630000 | 5,80 | 10000 | 58 | 630000 | 5,80 |
| | | | | 100000 | 2 | | | 100000 | 11 | | | 100000 | 11 | | |
| | | | 5135 | 10000 | 67 | 650000 | 5,81 | 10000 | 72 | 730000 | 5,86 | 10000 | 72 | 730000 | 5,86 |
| | | | | 100000 | 5 | | | 100000 | 8 | | | 100000 | 8 | | |
| | | | 5136 | 10000 | 71 | 660000 | 5,82 | 10000 | 70 | 690000 | 5,84 | 10000 | 71 | 700000 | 5,85 |
| | | | | 100000 | 2 | | | 100000 | 6 | | | 100000 | 6 | | |
| | | | 5137 | 10000 | 48 | 500000 | 5,70 | 10000 | 72 | 700000 | 5,85 | 10000 | 72 | 700000 | 5,85 |
| | | | | 100000 | 7 | | | 100000 | 5 | | | 100000 | 5 | | |

♦ Analyses performed according to the COFRAC accreditation

| Matrix | Strain | Level | N° sample | Reference method: ISO 4833-1♦ | | | | Alternative method: 3M Petrifilm Aerobic Count Plate | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 48h ± 3h at 30°C ± 1°C | | | | 72h ± 3h at 30°C ± 1°C | | | |
| | | | | Dilution | cfu/plate | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g | Dilution | cfu/Petrifilm test | cfu/g | log cfu/g |
| **Process water liquid egg** Batch 1 Aerobic mesophilic flora: 0 CFU/g | *Escherichia coli* 93 | 1 | 5183 | 10 | 36 | 340 | 2,53 | 10 | 31 | 310 | 2,49 | 10 | 31 | 310 | 2,49 |
| | | | | 100 | 1 | | | 100 | 3 | | | 100 | 3 | | |
| | | | 5184 | 10 | 33 | 320 | 2,51 | 10 | 31 | 330 | 2,52 | 10 | 32 | 340 | 2,53 |
| | | | | 100 | 2 | | | 100 | 5 | | | 100 | 5 | | |
| | | | 5185 | 10 | 33 | 320 | 2,51 | 10 | 23 | 250 | 2,40 | 10 | 23 | 250 | 2,40 |
| | | | | 100 | 2 | | | 100 | 4 | | | 100 | 4 | | |
| | | | 5186 | 10 | 31 | 320 | 2,51 | 10 | 41 | 380 | 2,58 | 10 | 41 | 380 | 2,58 |
| | | | | 100 | 4 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 5187 | 10 | 41 | 370 | 2,57 | 10 | 25 | 270 | 2,43 | 10 | 25 | 270 | 2,43 |
| | | | | 100 | 0 | | | 100 | 5 | | | 100 | 5 | | |
| | | 2 | 5193 | 100 | 108 | 10000 | 4,00 | 100 | 111 | 11000 | 4,04 | 100 | 111 | 11000 | 4,04 |
| | | | | 1000 | 7 | | | 1000 | 14 | | | 1000 | 15 | | |
| | | | 5194 | 100 | 113 | 11000 | 4,04 | 100 | 114 | 11000 | 4,04 | 100 | 114 | 11000 | 4,04 |
| | | | | 1000 | 8 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | | 5195 | 100 | 107 | 11000 | 4,04 | 100 | 99 | 9600 | 3,98 | 100 | 100 | 9700 | 3,99 |
| | | | | 1000 | 10 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | | 5196 | 100 | 114 | 12000 | 4,08 | 100 | 95 | 9300 | 3,97 | 100 | 95 | 9300 | 3,97 |
| | | | | 1000 | 14 | | | 1000 | 7 | | | 1000 | 7 | | |
| | | | 5197 | 100 | 92 | 9200 | 3,96 | 100 | 102 | 11000 | 4,04 | 100 | 102 | 11000 | 4,04 |
| | | | | 1000 | 9 | | | 1000 | 19 | | | 1000 | 19 | | |
| | | 3 | 5203 | 10000 | 98 | 950000 | 5,98 | 10000 | 104 | 1000000 | 6,00 | 10000 | 105 | 1000000 | 6,00 |
| | | | | 100000 | 6 | | | 100000 | 6 | | | 100000 | 6 | | |
| | | | 5204 | 10000 | 72 | 700000 | 5,85 | 10000 | 84 | 830000 | 5,92 | 10000 | 84 | 830000 | 5,92 |
| | | | | 100000 | 5 | | | 100000 | 7 | | | 100000 | 7 | | |
| | | | 5205 | 10000 | 179 | 1700000 | 6,23 | 10000 | 79 | 770000 | 5,89 | 10000 | 79 | 770000 | 5,89 |
| | | | | 100000 | 13 | | | 100000 | 6 | | | 100000 | 6 | | |
| | | | 5206 | 10000 | 77 | 770000 | 5,89 | 10000 | 93 | 920000 | 5,96 | 10000 | 93 | 920000 | 5,96 |
| | | | | 100000 | 8 | | | 100000 | 8 | | | 100000 | 8 | | |
| | | | 5207 | 10000 | 80 | 830000 | 5,92 | 10000 | 82 | 850000 | 5,93 | 10000 | 83 | 850000 | 5,93 |
| | | | | 100000 | 11 | | | 100000 | 11 | | | 100000 | 11 | | |
| **Process water liquid egg** Batch 2 Aerobic mesophilic flora: 0 CFU/g | | 1 | 5208 | 10 | 39 | 380 | 2,58 | 10 | 33 | 320 | 2,51 | 10 | 34 | 330 | 2,52 |
| | | | | 100 | 3 | | | 100 | 2 | | | 100 | 2 | | |
| | | | 5209, | 10 | 26 | 290 | 2,46 | 10 | 28 | 260 | 2,41 | 10 | 28 | 260 | 2,41 |
| | | | | 100 | 6 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 5210 | 10 | 31 | 320 | 2,51 | 10 | 30 | 280 | 2,45 | 10 | 30 | 280 | 2,45 |
| | | | | 100 | 4 | | | 100 | 1 | | | 100 | 1 | | |
| | | | 5211, | 10 | 37 | 340 | 2,53 | 10 | 32 | 290 | 2,46 | 10 | 32 | 290 | 2,46 |
| | | | | 100 | 0 | | | 100 | 0 | | | 100 | 0 | | |
| | | | 5212 | 10 | 29 | 320 | 2,51 | 10 | 33 | 360 | 2,56 | 10 | 33 | 360 | 2,56 |
| | | | | 100 | 6 | | | 100 | 6 | | | 100 | 6 | | |
| | | 2 | 5218 | 100 | 96 | 3100 | 3,49 | 100 | 125 | 12000 | 4,08 | 100 | 126 | 13000 | 4,11 |
| | | | | 1000 | 8 | | | 1000 | 12 | | | 1000 | 13 | | |
| | | | 5219 | 100 | 104 | 9800 | 3,99 | 100 | 116 | 11000 | 4,04 | 100 | 116 | 11000 | 4,04 |
| | | | | 1000 | 4 | | | 1000 | 10 | | | 1000 | 10 | | |
| | | | 5220 | 100 | 135 | 13000 | 4,11 | 100 | 116 | 12000 | 4,08 | 100 | 116 | 12000 | 4,08 |
| | | | | 1000 | 7 | | | 1000 | 13 | | | 1000 | 13 | | |
| | | | 5221 | 100 | 89 | 9300 | 3,97 | 100 | 114 | 11000 | 4,04 | 100 | 114 | 11000 | 4,04 |
| | | | | 1000 | 13 | | | 1000 | 12 | | | 1000 | 12 | | |
| | | | 5222 | 100 | 84 | 8300 | 3,92 | 100 | 88 | 8800 | 3,94 | 100 | 88 | 8800 | 3,94 |
| | | | | 1000 | 7 | | | 1000 | 9 | | | 1000 | 9 | | |
| | | 3 | 5228 | 10000 | 87 | 830000 | 5,92 | 10000 | 86 | 870000 | 5,94 | 10000 | 86 | 870000 | 5,94 |
| | | | | 100000 | 4 | | | 100000 | 10 | | | 100000 | 10 | | |
| | | | 5229 | 10000 | 85 | 840000 | 5,92 | 10000 | 87 | 910000 | 5,96 | 10000 | 87 | 910000 | 5,96 |
| | | | | 100000 | 7 | | | 100000 | 13 | | | 100000 | 13 | | |
| | | | 5230 | 10000 | 76 | 750000 | 5,88 | 10000 | 94 | 950000 | 5,98 | 10000 | 94 | 950000 | 5,98 |
| | | | | 100000 | 6 | | | 100000 | 10 | | | 100000 | 10 | | |
| | | | 5231 | 10000 | 72 | 690000 | 5,84 | 10000 | 94 | 940000 | 5,97 | 10000 | 94 | 940000 | 5,97 |
| | | | | 100000 | 4 | | | 100000 | 9 | | | 100000 | 9 | | |
| | | | 5232 | 10000 | 62 | 620000 | 5,79 | 10000 | 103 | 1000000 | 6,00 | 10000 | 103 | 1000000 | 6,00 |
| | | | | 100000 | 6 | | | 100000 | 9 | | | 100000 | 9 | | |

♦ Analyses performed according to the COFRAC accreditation

# Appendix 7 - Accuracy profile study: summarized results

## 48 h incubation time

| (Food) Category 1 | Meat products |
|---|---|
| (Food) Type 1 | Delicatessen |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6862-6866 | Pork pâté | 1 | 350 | 430 | 260 | 260 | 320 | 330 | 380 | 430 | 350 | 430 |
| 6867-6871 | Pork pâté | 1 | 460 | 320 | 260 | 410 | 360 | 410 | 400 | 450 | 420 | 360 |
| 4823-4827 | Pork pâté | 2 | 3800 | 4300 | 4800 | 2700 | 4700 | 3400 | 4300 | 4700 | 4400 | 4400 |
| 4848-4852 | Pork pâté | 2 | 3100 | 3300 | 3700 | 3000 | 2900 | 3300 | 3900 | 4500 | 3300 | 3500 |
| 4833-4837 | Pork pâté | 3 | 390000 | 320000 | 250000 | 320000 | 260000 | 250000 | 410000 | 270000 | 470000 | 340000 |
| 4858-4862 | Pork pâté | 3 | 330000 | 330000 | 250000 | 250000 | 220000 | 320000 | 340000 | 350000 | 430000 | 260000 |

| (Food) Category 3 | Seafood products |
|---|---|
| (Food) Type 3 | Ready to eat and ready to reheat (Mackerel) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 4212-4216 | Mackerel | 1 | 180 | 210 | 170 | 150 | 220 | 220 | 260 | 170 | 220 | 190 |
| 4227-4231 | Mackerel | 1 | 220 | 150 | 170 | 160 | 140 | 160 | 130 | 60 | 130 | 160 |
| 4217-4221 | Mackerel | 2 | 7200 | 6800 | 7900 | 7700 | 5700 | 8600 | 6900 | 8700 | 8500 | 6900 |
| 4232-4236 | Mackerel | 2 | 12000 | 12000 | 12000 | 10000 | 10000 | 12000 | 14000 | 15000 | 11000 | 14000 |
| 4222-4226 | Mackerel | 3 | 600000 | 720000 | 600000 | 550000 | 550000 | 780000 | 830000 | 830000 | 730000 | 760000 |
| 4237-4241 | Mackerel | 3 | 970000 | 690000 | 870000 | 1200000 | 830000 | 1000000 | 1000000 | 970000 | 1100000 | 940000 |

| (Food) Category 5 | Egg based products |
|---|---|
| (Food) Type 5 | Pasteurized egg |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6428-6432 | Whole liquid egg | 1 | 160 | 180 | 230 | 170 | 250 | 250 | 260 | 250 | 220 | 200 |
| 6857-6861 | Whole liquid egg | 1 | 160 | 230 | 220 | 160 | 280 | 250 | 260 | 310 | 190 | 250 |
| 5098-5102 | Whole liquid egg | 2 | 8000 | 7600 | 8800 | 7700 | 8000 | 9400 | 10000 | 8800 | 8400 | 9500 |
| 5123-5127 | Whole liquid egg | 2 | 8400 | 5300 | 6700 | 5000 | 7900 | 9700 | 8900 | 7300 | 7600 | 10000 |
| 5108-5112 | Whole liquid egg | 3 | 750000 | 560000 | 510000 | 600000 | 670000 | 750000 | 780000 | 630000 | 820000 | 540000 |
| 5133-5137 | Whole liquid egg | 3 | 550000 | 550000 | 650000 | 660000 | 500000 | 550000 | 630000 | 730000 | 700000 | 700000 |

| (Food) Category 7 | Environmental samples |
|---|---|
| (Food) Type 7 | Process water |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 5183-5187 | Rinsed water | 1 | 340 | 320 | 320 | 320 | 370 | 310 | 340 | 250 | 380 | 270 |
| 5208-5212 | Rinsed water | 1 | 380 | 290 | 320 | 340 | 320 | 320 | 260 | 280 | 290 | 360 |
| 5193-5197 | Rinsed water | 2 | 10000 | 11000 | 11000 | 12000 | 9200 | 11000 | 11000 | 9600 | 9300 | 11000 |
| 5218-5222 | Rinsed water | 2 | 9500 | 9800 | 13000 | 9300 | 8300 | 12000 | 11000 | 12000 | 11000 | 8800 |
| 5203-5207 | Rinsed water | 3 | 950000 | 700000 | 170000 | 770000 | 830000 | 1000000 | 830000 | 770000 | 920000 | 850000 |
| 5228-5232 | Rinsed water | 3 | 830000 | 840000 | 750000 | 690000 | 620000 | 870000 | 910000 | 950000 | 940000 | 1000000 |

| (Food) Category 4 | Vegetables |
|---|---|
| (Food) Type 4 | Ready to eat, ready to reheat (Guacamole) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6872-6876 | Guacamole | 1 | 250 | 300 | 190 | 150 | 230 | 160 | 140 | 210 | 220 | 210 |
| 6877-6881 | Guacamole | 1 | 230 | 200 | 240 | 230 | 210 | 400 | 340 | 170 | 210 | 340 |
| 4387-4391 | Guacamole | 2 | 17000 | 35000 | 39000 | 37000 | 35000 | 39000 | 46000 | 50000 | 38000 | 37000 |
| 4402-4406 | Guacamole | 2 | 39000 | 30000 | 37000 | 37000 | 29000 | 35000 | 40000 | 48000 | 46000 | 29000 |
| 4392-4396 | Guacamole | 3 | 4500000 | 4000000 | 3500000 | 3000000 | 3800000 | 3500000 | 3500000 | 4000000 | 3400000 | 5700000 |
| 4407-4411 | Guacamole | 3 | 2500000 | 3200000 | 3200000 | 4100000 | 3600000 | 4400000 | 5300000 | 4500000 | 3800000 | 4800000 |

| (Food) Category 6 | Pet food |
|---|---|
| (Food) Type 6 | Cooked or dehydrated products (Pâté for cat) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 4758-4762 | Pâté for cat | 1 | 360 | 270 | 390 | 210 | 240 | 290 | 470 | 360 | 440 | 440 |
| 4783-4787 | Pâté for cat | 1 | 240 | 360 | 380 | 260 | 370 | 460 | 440 | 450 | 390 | 460 |
| 4768-4772 | Pâté for cat | 2 | 11000 | 10000 | 11000 | 12000 | 9700 | 14000 | 13000 | 14000 | 16000 | 12000 |
| 4793-4797 | Pâté for cat | 2 | 9200 | 11000 | 8500 | 11000 | 10000 | 11000 | 13000 | 12000 | 11000 | 12000 |
| 4778-4782 | Pâté for cat | 3 | 1100000 | 1200000 | 1100000 | 1100000 | 970000 | 790000 | 1200000 | 1400000 | 1300000 | 1800000 |
| 4803-4807 | Pâté for cat | 3 | 970000 | 1200000 | 890000 | 1100000 | 1100000 | 1100000 | 770000 | 1000000 | 1100000 | 1300000 |

## 72 h incubation time

| (Food) Category 1 | Meat products |
|---|---|
| (Food) Type 1 | Delicatessen |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6862-6866 | Pork pâté | 1 | 350 | 430 | 260 | 260 | 320 | 350 | 380 | 430 | 360 | 430 |
| 6867-6871 | Pork pâté | 1 | 460 | 320 | 260 | 410 | 360 | 410 | 400 | 460 | 420 | 360 |
| 4823-4827 | Pork pâté | 2 | 3800 | 4300 | 4800 | 2700 | 4700 | 3400 | 4300 | 4700 | 4400 | 4400 |
| 4848-4852 | Pork pâté | 2 | 3100 | 3300 | 3700 | 3000 | 2900 | 3300 | 3900 | 4500 | 3300 | 3500 |
| 4833-4837 | Pork pâté | 3 | 390000 | 320000 | 250000 | 320000 | 260000 | 250000 | 410000 | 270000 | 470000 | 340000 |
| 4858-4862 | Pork pâté | 3 | 330000 | 330000 | 250000 | 250000 | 220000 | 320000 | 340000 | 350000 | 430000 | 260000 |

| (Food) Category 2 | Dairy products |
|---|---|
| (Food) Type 2 | Pasteurized milks |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 4975-4979 | Pasteurized milk | 1 | 80 | 260 | 80 | 120 | 190 | 390 | 550 | 380 | 400 | 410 |
| 4990-4994 | Pasteurized milk | 1 | 160 | 210 | 180 | 200 | 180 | 480 | 420 | 410 | 420 | 300 |
| 4980-4984 | Pasteurized milk | 2 | 6500 | 6000 | 5300 | 7300 | 5500 | 11000 | 13000 | 13000 | 15000 | 13000 |
| 4995-4999 | Pasteurized milk | 2 | 6500 | 5200 | 6000 | 6900 | 9100 | 12000 | 15000 | 12000 | 13000 | 12000 |
| 4985-4989 | Pasteurized milk | 3 | 540000 | 550000 | 360000 | 670000 | 610000 | 1100000 | 1200000 | 1200000 | 1500000 | 1300000 |
| 5000-5004 | Pasteurized milk | 3 | 910000 | 550000 | 660000 | 550000 | 960000 | 1400000 | 1300000 | 1200000 | 1300000 | 1400000 |

| (Food) Category 3 | Seafood products |
|---|---|
| (Food) Type 3 | Ready to eat and ready to reheat (Mackerel) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 4212-4216 | Mackerel | 1 | 180 | 210 | 170 | 150 | 220 | 230 | 260 | 170 | 220 | 190 |
| 4227-4231 | Mackerel | 1 | 220 | 150 | 170 | 160 | 140 | 160 | 130 | 60 | 130 | 170 |
| 4217-4221 | Mackerel | 2 | 7200 | 6800 | 7900 | 7700 | 5700 | 8600 | 6900 | 8700 | 8500 | 6900 |
| 4232-4236 | Mackerel | 2 | 12000 | 12000 | 12000 | 10000 | 10000 | 12000 | 14000 | 15000 | 11000 | 14000 |
| 4222-4226 | Mackerel | 3 | 600000 | 720000 | 600000 | 550000 | 550000 | 790000 | 830000 | 870000 | 730000 | 760000 |
| 4237-4241 | Mackerel | 3 | 970000 | 690000 | 870000 | 1200000 | 830000 | 1000000 | 1000000 | 970000 | 1100000 | 940000 |

| (Food) Category 4 | Vegetables |
|---|---|
| (Food) Type 4 | Ready to eat , ready to reheat (Guacamole) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6872-6876 | Guacamole | 1 | 250 | 300 | 190 | 150 | 230 | 230 | 160 | 250 | 260 | 250 |
| 6877-6881 | Guacamole | 1 | 230 | 200 | 240 | 230 | 210 | 420 | 340 | 190 | 240 | 360 |
| 4387-4391 | Guacamole | 2 | 17000 | 35000 | 39000 | 37000 | 35000 | 39000 | 46000 | 50000 | 38000 | 37000 |
| 4402-4406 | Guacamole | 2 | 39000 | 30000 | 37000 | 37000 | 29000 | 35000 | 40000 | 48000 | 46000 | 29000 |
| 4392-4396 | Guacamole | 3 | 4500000 | 4000000 | 3500000 | 3000000 | 3800000 | 3500000 | 3500000 | 4000000 | 3400000 | 5700000 |
| 4407-4411 | Guacamole | 3 | 2500000 | 3200000 | 3200000 | 4100000 | 3600000 | 4400000 | 5300000 | 4500000 | 3800000 | 4800000 |

| (Food) Category 5 | Egg based products |
|---|---|
| (Food) Type 5 | Pasteurized egg |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 6428-6432 | Whole liquid egg | 1 | 160 | 180 | 230 | 170 | 250 | 250 | 260 | 250 | 240 | 200 |
| 6857-6861 | Whole liquid egg | 1 | 160 | 230 | 220 | 160 | 280 | 260 | 260 | 310 | 220 | 250 |
| 5098-5102 | Whole liquid egg | 2 | 8000 | 7600 | 8800 | 7700 | 8000 | 9500 | 11000 | 8900 | 8500 | 9500 |
| 5123-5127 | Whole liquid egg | 2 | 8400 | 5300 | 6700 | 5000 | 7900 | 9800 | 8900 | 7300 | 7600 | 10000 |
| 5108-5112 | Whole liquid egg | 3 | 750000 | 560000 | 510000 | 600000 | 670000 | 750000 | 800000 | 630000 | 820000 | 590000 |
| 5133-5137 | Whole liquid egg | 3 | 550000 | 550000 | 650000 | 660000 | 500000 | 550000 | 630000 | 730000 | 700000 | 700000 |

| (Food) Category 6 | Pet food |
|---|---|
| (Food) Type 6 | Cooked or dehydrated products (Pâté for cat) |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 4758-4762 | Pâté for cat | 1 | 360 | 270 | 390 | 210 | 240 | 290 | 470 | 360 | 440 | 440 |
| 4783-4787 | Pâté for cat | 1 | 240 | 360 | 380 | 260 | 370 | 460 | 440 | 460 | 390 | 460 |
| 4768-4772 | Pâté for cat | 2 | 11000 | 10000 | 11000 | 12000 | 9700 | 14000 | 12000 | 14000 | 16000 | 12000 |
| 4793-4797 | Pâté for cat | 2 | 9200 | 11000 | 8500 | 11000 | 10000 | 11000 | 13000 | 12000 | 11000 | 12000 |
| 4778-4782 | Pâté for cat | 3 | 1100000 | 1200000 | 1100000 | 1100000 | 970000 | 810000 | 1200000 | 1400000 | 1300000 | 1800000 |
| 4803-4807 | Pâté for cat | 3 | 970000 | 1200000 | 890000 | 1100000 | 1100000 | 1200000 | 530000 | 1000000 | 1100000 | 1300000 |

| (Food) Category 7 | Environmental samples |
|---|---|
| (Food) Type 7 | Process water |

| | | | Reference method result | | | | | Alternative method result | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Name | (Food) item | Level | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 | rep 1 | rep 2 | rep 3 | rep 4 | rep 5 |
| 5183-5187 | Rinsed water | 1 | 340 | 320 | 320 | 320 | 370 | 310 | 340 | 250 | 380 | 270 |
| 5208-5212 | Rinsed water | 1 | 380 | 290 | 320 | 340 | 320 | 330 | 260 | 280 | 290 | 360 |
| 5193-5197 | Rinsed water | 2 | 10000 | 11000 | 11000 | 12000 | 9200 | 11000 | 11000 | 9700 | 9300 | 11000 |
| 5218-5222 | Rinsed water | 2 | 9500 | 9800 | 13000 | 9300 | 8300 | 13000 | 11000 | 12000 | 11000 | 8800 |
| 5203-5207 | Rinsed water | 3 | 950000 | 700000 | 170000 | 770000 | 830000 | 1000000 | 830000 | 770000 | 920000 | 850000 |
| 5228-5232 | Rinsed water | 3 | 830000 | 840000 | 750000 | 690000 | 620000 | 870000 | 910000 | 950000 | 940000 | 1000000 |

# Appendix 8 - Inter-laboratory study (2001): results obtained by the collaborators and the expert laboratory

| | | 3M Aerobic Count Plate | | | | PCA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g | N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| A | A3 | 10 | 148 | 1600 | 3,20 | A3 | 10 | 62 | 60 | 660 | 2,82 |
| | | 100 | 25 | | | | 100 | 6 | 16 | | |
| | A4 | 10 | 127 | 1400 | 3,15 | A4 | 10 | 54 | 48 | 590 | 2,77 |
| | | 100 | 32 | | | | 100 | 15 | 13 | | |
| | A7 | 100 | 214 | 23000 | 4,36 | A7 | 100 | 35 | 40 | 3900 | 3,59 |
| | | 1000 | 40 | | | | 1000 | 9 | 2 | | |
| | A8 | 100 | 155 | 16000 | 4,20 | A8 | 10 | 256 | 285 | 2800 | 3,45 |
| | | 1000 | 21 | | | | 100 | 32 | 34 | | |
| | A1 | 1000 | 158 | 170000 | 5,23 | A1 | 100 | 167 | 150 | 17000 | 4,23 |
| | | 10000 | 26 | | | | 1000 | 30 | 31 | | |
| | A5 | 1000 | 225 | 230000 | 5,36 | A5 | 100 | 262 | 254 | 26000 | 4,41 |
| | | 10000 | 24 | | | | 1000 | 36 | 25 | | |
| | A6 | 10000 | 220 | 2200000 | 6,34 | A6 | 10000 | 56 | 50 | 530000 | 5,72 |
| | | 100000 | 22 | | | | 100000 | 8 | 3 | | |
| | A2 | 10000 | 158 | 1900000 | 6,28 | A2 | 10000 | 65 | 80 | 820000 | 5,91 |
| | | 100000 | 50 | | | | 100000 | 23 | 13 | | |
| B | B20 | 10 | 200 | 2200 | 3,34 | B20 | 10 | 165 | 163 | 1700 | 3,23 |
| | | 100 | 43 | | | | 100 | 27 | 16 | | |
| | B22 | 10 | 200 | 2000 | 3,30 | B22 | 10 | 73 | 79 | 790 | 2,90 |
| | | 100 | 25 | | | | 100 | 14 | 8 | | |
| | B19 | 100 | 240 | 24000 | 4,38 | B19 | 100 | 99 | 67 | 8000 | 3,90 |
| | | 1000 | 24 | | | | 1000 | 4 | 8 | | |
| | B18 | 1000 | 40 | 39000 | 4,59 | B18 | 100 | 83 | 64 | 7400 | 3,87 |
| | | 10000 | 3 | | | | 1000 | 8 | 8 | | |
| | B21 | 1000 | 250 | 250000 | 5,40 | B21 | 1000 | 90 | 100 | 93000 | 4,97 |
| | | 10000 | 25 | | | | 10000 | 10 | 4 | | |
| | B23 | 1000 | 200 | 200000 | 5,30 | B23 | 1000 | 96 | 82 | 91000 | 4,96 |
| | | 10000 | 21 | | | | 10000 | 12 | 10 | | |
| | B24 | 10000 | >250 | 3000000 | 6,48 | B24 | 10000 | 139 | 180 | 1700000 | 6,23 |
| | | 100000 | 30 | | | | 100000 | 14 | 35 | | |
| | B17 | 10000 | >250 | 2700000 | 6,43 | B17 | 10000 | 114 | 135 | 1300000 | 6,11 |
| | | 100000 | 27 | | | | 100000 | 10 | 15 | | |

| | | 3M Aerobic Count Plate | | | |
|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g |
| C | C36 | 10 | 114 | 1300 | 3,11 |
| | | 100 | 30 | | |
| | C35 | 10 | 161 | 1700 | 3,23 |
| | | 100 | 26 | | |
| | C39 | 100 | 235 | 24000 | 4,38 |
| | | 1000 | 34 | | |
| | C40 | 100 | 248 | 25000 | 4,40 |
| | | 1000 | 30 | | |
| | C38 | 1000 | 217 | 230000 | 5,36 |
| | | 10000 | 32 | | |
| | C34 | 1000 | 223 | 220000 | 5,34 |
| | | 10000 | 21 | | |
| | C33 | 10000 | 275 | 2900000 | 6,46 |
| | | 100000 | 29 | | |
| | C37 | 10000 | >250 | 4000000 | 6,60 |
| | | 100000 | 40 | | |
| D | D51 | 10 | 97 | 1000 | 3,00 |
| | | 100 | 17 | | |
| | D55 | 10 | 89 | 980 | 2,99 |
| | | 100 | 19 | | |
| | D50 | 100 | 174 | 17000 | 4,23 |
| | | 1000 | 14 | | |
| | D54 | 100 | 58 | 6800 | 3,83 |
| | | 1000 | 17 | | |
| | D52 | 1000 | 165 | 170000 | 5,23 |
| | | 10000 | 24 | | |
| | D56 | 1000 | 182 | 180000 | 5,26 |
| | | 10000 | 20 | | |
| | D49 | 10000 | >250 | 3200000 | 6,51 |
| | | 100000 | 32 | | |
| | D53 | 10000 | 210 | 2100000 | 6,32 |
| | | 100000 | 23 | | |

| | PCA | | | | |
|---|---|---|---|---|---|
| N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| C36 | 10 | 145 | 132 | 1400 | 3,15 |
| | 100 | 17 | 10 | | |
| C35 | 10 | 133 | 158 | 1500 | 3,18 |
| | 100 | 14 | 23 | | |
| C39 | 100 | 78 | 87 | 8300 | 3,92 |
| | 1000 | 10 | 7 | | |
| C40 | 100 | 87 | 88 | 8900 | 3,95 |
| | 1000 | 12 | 8 | | |
| C38 | 1000 | 76 | 67 | 77000 | 4,89 |
| | 10000 | 11 | 15 | | |
| C34 | 1000 | 56 | 62 | 58000 | 4,76 |
| | 10000 | 5 | 5 | | |
| C33 | 10000 | 140 | 135 | 1400000 | 6,15 |
| | 100000 | 12 | 12 | | |
| C37 | 10000 | 183 | 204 | 1950000 | 6,29 |
| | 100000 | 24 | 17 | | |
| D51 | 10 | 96 | 72 | 900 | 2,95 |
| | 100 | 12 | 17 | | |
| D55 | 10 | 78 | 75 | 800 | 2,90 |
| | 100 | 13 | 11 | | |
| D50 | 100 | 50 | 65 | 5200 | 3,72 |
| | 1000 | 0 | 0 | | |
| D54 | 100 | 46 | 56 | 5800 | 3,76 |
| | 1000 | 12 | 13 | | |
| D52 | 1000 | 48 | 62 | 60000 | 4,78 |
| | 10000 | 11 | 11 | | |
| D56 | 1000 | 59 | 69 | 65000 | 4,81 |
| | 10000 | 7 | 8 | | |
| D49 | 10000 | 247 | 274 | 2600000 | 6,41 |
| | 100000 | 22 | 36 | | |
| D53 | 10000 | 162 | 152 | 1600000 | 6,20 |
| | 100000 | 15 | 21 | | |

| | | 3M Aerobic Count Plate | | | | PCA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g | N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| E | E65 | 100<br>1000 | 21<br>0 | 1900 | 3,28 | E65 | 10<br>100 | 146<br>19 | 131<br>21 | 1400 | 3,15 |
| | E69 | 100<br>1000 | 26<br>2 | 2500 | 3,40 | E69 | 10<br>100 | 138<br>17 | 126<br>12 | 1300 | 3,11 |
| | E71 | 100<br>1000 | 148<br>19 | 15000 | 4,18 | E71 | 100<br>1000 | 136<br>8 | 119<br>7 | 12000 | 4,08 |
| | E70 | 100<br>1000 | 149<br>11 | 14000 | 4,15 | E70 | 100<br>1000 | 109<br>9 | 121<br>7 | 11000 | 4,04 |
| | E68 | 10000<br>100000 | 23<br>2 | 230000 | 5,36 | E68 | 1000<br>10000 | 129<br>12 | 114<br>9 | 120000 | 5,08 |
| | E66 | 10000<br>100000 | 21<br>2 | 210000 | 5,32 | E66 | 1000<br>10000 | 118<br>12 | 111<br>11 | 110000 | 5,04 |
| | E72 | 10000<br>100000 | >150<br>23 | 2300000 | 6,36 | E72 | 10000<br>100000 | 131<br>17 | 160<br>14 | 1500000 | 6,18 |
| | E67 | 10000<br>100000 | >150<br>17 | 1700000 | 6,23 | E67 | 10000<br>100000 | 143<br>19 | 129<br>9 | 1400000 | 6,15 |
| F | F87 | 100<br>1000 | 39<br>7 | 4200 | 3,62 | F87 | 10<br>100 | 78<br>8 | 84<br>7 | 810 | 2,91 |
| | F83 | 100<br>1000 | 42<br>3 | 4100 | 3,61 | F83 | 10<br>100 | 82<br>9 | 81<br>8 | 820 | 2,91 |
| | F84 | 1000<br>10000 | 43<br>2 | 41000 | 4,61 | F84 | 100<br>1000 | 77<br>7 | 79<br>8 | 7800 | 3,89 |
| | F88 | 1000<br>10000 | 46<br>5 | 46000 | 4,66 | F88 | 100<br>1000 | 55<br>8 | 61<br>6 | 5900 | 3,77 |
| | F86 | 10000<br>100000 | 25<br>6 | 280000 | 5,45 | F86 | 1000<br>10000 | 61<br>5 | 80<br>6 | 69000 | 4,84 |
| | F82 | 10000<br>100000 | 32<br>3 | 320000 | 5,51 | F82 | 1000<br>10000 | 63<br>5 | 63<br>6 | 62000 | 4,79 |
| | F81 | 10000<br>100000 | >250<br>41 | 4100000 | 6,61 | F81 | 10000<br>100000 | 90<br>9 | 90<br>9 | 900000 | 5,95 |
| | F85 | 10000<br>100000 | >250<br>36 | 3600000 | 6,56 | F85 | 10000<br>100000 | 123<br>15 | 113<br>13 | 1200000 | 6,08 |

| | | 3M Aerobic Count Plate | | | | PCA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g | N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| G | G97 | 100<br>1000 | 34<br>2 | 3300 | 3,52 | G97 | 10<br>100 | 165<br>23 | 183<br>20 | 1800 | 3,26 |
| | G104 | 10<br>100 | 158<br>21 | 1600 | 3,20 | G104 | 10<br>100 | 204<br>17 | 211<br>15 | 2000 | 3,30 |
| | G103 | 1000<br>10000 | 43<br>5 | 44000 | 4,64 | G103 | 100<br>1000 | 201<br>20 | 190<br>32 | 20000 | 4,30 |
| | G98 | 1000<br>10000 | 36<br>5 | 37000 | 4,57 | G98 | 100<br>1000 | 138<br>15 | 128<br>18 | 14000 | 4,15 |
| | G100 | 10000<br>100000 | 41<br>5 | 420000 | 5,62 | G100 | 1000<br>10000 | 160<br>16 | 153<br>19 | 160000 | 5,20 |
| | G102 | 10000<br>100000 | 46<br>4 | 450000 | 5,65 | G102 | 1000<br>10000 | 272<br>21 | 262<br>25 | 260000 | 5,41 |
| | G101 | 10000<br>100000 | >250<br>34 | 3400000 | 6,53 | G101 | 10000<br>100000 | >300<br>27 | >300<br>28 | 2800000 | 6,45 |
| | G99 | 10000<br>100000 | >250<br>28 | 2800000 | 6,45 | G99 | 10000<br>100000 | 274<br>13 | 242<br>19 | 2500000 | 6,40 |
| I | I133 | 100<br>1000 | 115<br>19 | 12000 | 4,08 | I133 | 100<br>1000 | 101<br>9 | 55<br>4 | 7700 | 3,89 |
| | I130 | 100<br>1000 | 48<br>2 | 4500 | 3,65 | I130 | 10<br>100 | 165<br>30 | 144<br>33 | 1700 | 3,23 |
| | I134 | 100<br>1000 | 247<br>26 | 25000 | 4,40 | I134 | 100<br>1000 | 123<br>9 | 121<br>13 | 12000 | 4,08 |
| | I132 | 100<br>1000 | 174<br>21 | 18000 | 4,26 | I132 | 100<br>1000 | 68<br>9 | 69<br>10 | 7100 | 3,85 |
| | I135 | 1000<br>10000 | 253<br>25 | 250000 | 5,40 | I135 | 1000<br>10000 | 93<br>10 | 105<br>12 | 100000 | 5,00 |
| | I129 | 1000<br>10000 | 166<br>21 | 170000 | 5,23 | I129 | 1000<br>10000 | 67<br>3 | 61<br>6 | 62000 | 4,79 |
| | I136 | 10000<br>100000 | 264<br>38 | 3800000 | 6,58 | I136 | 10000<br>100000 | 188<br>13 | 169<br>17 | 1800000 | 6,26 |
| | I131 | 10000<br>100000 | 214<br>20 | 2100000 | 6,32 | I131 | 10000<br>100000 | 170<br>13 | 165<br>23 | 1700000 | 6,23 |

| | | 3M Aerobic Count Plate | | | | PCA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g | N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| J | J150 | 10<br>100 | 141<br>32 | 1600 | 3,20 | J150 | 10<br>100 | 93<br>22 | 94<br>32 | 1100 | 3,04 |
| | J147 | 10<br>100 | 130<br>35 | 1500 | 3,18 | J147 | 10<br>100 | 86<br>22 | 90<br>31 | 1000 | 3,00 |
| | J148 | 1000<br>10000 | 56<br>6 | 56000 | 4,75 | J148 | 100<br>1000 | 108<br>11 | 116<br>13 | 11000 | 4,04 |
| | J149 | 1000<br>10000 | 48<br>6 | 49000 | 4,69 | J149 | 100<br>1000 | 174<br>25 | 176<br>32 | 19000 | 4,28 |
| | J152 | 10000<br>100000 | 56<br>9 | 590000 | 5,77 | J152 | 1000<br>10000 | 96<br>13 | 108<br>16 | 110000 | 5,04 |
| | J151 | 10000<br>100000 | 42<br>10 | 470000 | 5,67 | J151 | 1000<br>10000 | 62<br>8 | 79<br>10 | 72000 | 4,86 |
| | J145 | 10000<br>100000 | >250<br>139 | 14000000 | 7,15 | J145 | 10000<br>100000 | 330<br>39 | 349<br>49 | 4400000 | 6,64 |
| | J146 | 10000<br>100000 | >250<br>123 | 12000000 | 7,08 | J146 | 10000<br>100000 | 316<br>48 | 330<br>52 | 5000000 | 6,70 |
| K | K168 | 10<br>100 | 148<br>29 | 1600 | 3,20 | K168 | 1<br>10 | 260<br>65 | 244<br>50 | 280 | 2,45 |
| | K162 | 10<br>100 | 172<br>28 | 1800 | 3,26 | K162 | 1<br>10 | 308<br>48 | 220<br>51 | 500 | 2,70 |
| | K161 | 100<br>1000 | 190<br>30 | 20000 | 4,30 | K161 | 100<br>1000 | 87<br>5 | 58<br>4 | 7000 | 3,85 |
| | K167 | 100<br>1000 | 132<br>27 | 14000 | 4,15 | K167 | 100<br>1000 | 71<br>10 | 77<br>7 | 7500 | 3,88 |
| | K164 | 1000<br>10000 | 176<br>18 | 180000 | 5,26 | K164 | 1000<br>10000 | 44<br>4 | 28<br>2 | 35000 | 4,54 |
| | K166 | 1000<br>10000 | 164<br>19 | 170000 | 5,23 | K166 | 1000<br>10000 | 51<br>5 | 61<br>7 | 56000 | 4,75 |
| | K165 | 10000<br>100000 | 264<br>34 | 3400000 | 6,53 | K165 | 10000<br>100000 | 72<br>5 | 88<br>8 | 790000 | 5,90 |
| | K163 | 10000<br>100000 | 216<br>37 | 2300000 | 6,36 | K163 | 10000<br>100000 | 84<br>7 | 94<br>9 | 880000 | 5,94 |

| | | 3M Aerobic Count Plate | | | |
|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g |
| L | L181 | 10<br>100 | 171<br>31 | 1800 | 3,26 |
| | L179 | 10<br>100 | 154<br>39 | 1800 | 3,26 |
| | L180 | 1000<br>10000 | 44<br>4 | 44000 | 4,64 |
| | L184 | 1000<br>10000 | 43<br>4 | 43000 | 4,63 |
| | L183 | 10000<br>100000 | 36<br>3 | 350000 | 5,54 |
| | L178 | 10000<br>100000 | 29<br>5 | 310000 | 5,49 |
| | L177 | 10000<br>100000 | >250<br>40 | 4000000 | 6,60 |
| | L182 | 10000<br>100000 | >250<br>35 | 3500000 | 6,54 |
| M | M198 | 10<br>100 | 221<br>44 | 4400 | 3,64 |
| | M196 | 100<br>1000 | 40<br>12 | 4700 | 3,67 |
| | M193 | 100<br>1000 | 150<br>7 | 14000 | 4,15 |
| | M197 | 1000<br>10000 | 49<br>7 | 51000 | 4,71 |
| | M200 | 10000<br>100000 | 48<br>4 | 470000 | 5,67 |
| | M195 | 1000<br>10000 | 192<br>13 | 190000 | 5,28 |
| | M194 | 10000<br>100000 | 352<br>31 | 3100000 | 6,49 |
| | M199 | 10000<br>100000 | 347<br>50 | 5000000 | 6,70 |

| | PCA | | | | |
|---|---|---|---|---|---|
| N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| L181 | 10<br>100 | 110<br>18 | 110<br>17 | 1200 | 3,08 |
| L179 | 10<br>100 | 135<br>16 | 140<br>16 | 1400 | 3,15 |
| L180 | 100<br>1000 | 157<br>15 | 210<br>12 | 18000 | 4,26 |
| L184 | 100<br>1000 | 240<br>18 | 182<br>18 | 21000 | 4,32 |
| L183 | 1000<br>10000 | 180<br>18 | 130<br>11 | 150000 | 5,18 |
| L178 | 1000<br>10000 | 125<br>18 | 116<br>16 | 130000 | 5,11 |
| L177 | 10000<br>100000 | 200<br>20 | 223<br>23 | 2100000 | 6,32 |
| L182 | 10000<br>100000 | 215<br>22 | 210<br>22 | 2100000 | 6,32 |
| M198 | 10<br>100 | 160<br>23 | 201<br>30 | 1900 | 3,28 |
| M196 | 10<br>100 | 280<br>24 | 265<br>23 | 2700 | 3,43 |
| M193 | 100<br>1000 | 54<br>0 | 42<br>0 | 4400 | 3,64 |
| M197 | 100<br>1000 | 320<br>60 | 300<br>58 | 59000 | 4,77 |
| M200 | 1000<br>10000 | 193<br>18 | 204<br>14 | 200000 | 5,30 |
| M195 | 1000<br>10000 | 44<br>5 | 48<br>7 | 47000 | 4,67 |
| M194 | 10000<br>100000 | 89<br>7 | 66<br>12 | 790000 | 5,90 |
| M199 | 10000<br>100000 | 180<br>39 | 190<br>26 | 2000000 | 6,30 |

| | | 3M Aerobic Count Plate | | | | PCA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g | N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| N | N215 | 10<br>100 | 224<br>15 | 1500 | 3,18 | N215 | 10<br>100 | 148<br>27 | 135<br>23 | 1500 | 3,18 |
| | N210 | 10<br>100 | 145<br>23 | 2300 | 3,36 | N210 | 10<br>100 | 161<br>16 | 164<br>13 | 1600 | 3,20 |
| | N216 | 100<br>1000 | 179<br>15 | 18000 | 4,26 | N216 | 100<br>1000 | 115<br>11 | 122<br>19 | 12000 | 4,08 |
| | N214 | 100<br>1000 | 223<br>13 | 13000 | 4,11 | N214 | 100<br>1000 | 139<br>13 | 138<br>12 | 14000 | 4,15 |
| | N212 | 1000<br>10000 | 114<br>9 | 110000 | 5,04 | N212 | 1000<br>10000 | 100<br>7 | 83<br>6 | 89000 | 4,95 |
| | N209 | 1000<br>10000 | 217<br>20 | 200000 | 5,30 | N209 | 1000<br>10000 | 114<br>9 | 115<br>5 | 110000 | 5,04 |
| | N211 | 10000<br>100000 | 146<br>12 | 1400000 | 6,15 | N211 | 10000<br>100000 | 79<br>10 | 94<br>13 | 890000 | 5,95 |
| | N213 | 10000<br>100000 | 166<br>8 | 1600000 | 6,20 | N213 | 10000<br>100000 | 92<br>8 | 83<br>5 | 850000 | 5,93 |
| O | O225 | 100<br>1000 | 46<br>3 | 4500 | 3,65 | O225 | 10<br>100 | 296<br>33 | 290<br>24 | 2900 | 3,46 |
| | O232 | 100<br>1000 | 56<br>7 | 5700 | 3,76 | O232 | 100<br>1000 | 27<br>3 | 31<br>1 | 2800 | 3,45 |
| | O228 | 1000<br>10000 | 72<br>12 | 76000 | 4,88 | O228 | 100<br>1000 | 220<br>24 | 277<br>28 | 25000 | 4,40 |
| | O231 | 1000<br>10000 | 74<br>10 | 76000 | 4,88 | O231 | 100<br>1000 | 273<br>24 | 265<br>33 | 27000 | 4,43 |
| | O230 | 10000<br>100000 | 36<br>2 | 350000 | 5,54 | O230 | 1000<br>10000 | 136<br>16 | 159<br>18 | 150000 | 5,18 |
| | O226 | 10000<br>100000 | 45<br>6 | 460000 | 5,66 | O226 | 1000<br>10000 | 141<br>20 | 135<br>12 | 140000 | 5,15 |
| | O229 | 10000<br>100000 | >150<br>51 | 5100000 | 6,71 | O229 | 10000<br>100000 | 230<br>22 | 222<br>24 | 2300000 | 6,36 |
| | O227 | 10000<br>100000 | >150<br>54 | 5400000 | 6,73 | O227 | 10000<br>100000 | 280<br>33 | 312<br>38 | 3600000 | 6,56 |

| | | 3M Aerobic Count Plate | | | |
|---|---|---|---|---|---|
| Laboratory | N° sample | Dilution | CFU/ Petrifilm | CFU/g | log CFU/g |
| ADRIA | P241 | 10 | 161 | 1600 | 3,20 |
| | | 100 | 17 | | |
| | P243 | 10 | 242 | 2400 | 3,38 |
| | | 100 | 27 | | |
| | P242 | 100 | 235 | 23000 | 4,36 |
| | | 1000 | 21 | | |
| | P248 | 1000 | 30 | 32000 | 4,51 |
| | | 100000 | 5 | | |
| | P245 | 1000 | 264 | 190000 | 5,28 |
| | | 10000 | 19 | | |
| | P247 | 1000 | 233 | 240000 | 5,38 |
| | | 10000 | 26 | | |
| | P246 | 10000 | 228 | 2400000 | 6,38 |
| | | 100000 | 32 | | |
| | P244 | 10000 | 255 | 3600000 | 6,56 |
| | | 100000 | 36 | | |

| | PCA♦ | | | | |
|---|---|---|---|---|---|
| N° sample | Dilution | a: CFU/plate | b: CFU/plate | CFU/g | log CFU/g |
| P241 | 10 | 173 | 181 | 1800 | 3,26 |
| | 100 | 24 | 19 | | |
| P243 | 10 | 211 | 198 | 2100 | 3,32 |
| | 100 | 26 | 25 | | |
| P242 | 100 | 97 | 77 | 8800 | 3,94 |
| | 1000 | 12 | 8 | | |
| P248 | 100 | 152 | 144 | 14000 | 4,15 |
| | 1000 | 12 | 6 | | |
| P245 | 1000 | 137 | 101 | 120000 | 5,08 |
| | 10000 | 8 | 10 | | |
| P247 | 1000 | 131 | 119 | 120000 | 5,08 |
| | 10000 | 10 | 7 | | |
| P246 | 10000 | 174 | 114 | 1400000 | 6,15 |
| | 100000 | 17 | 10 | | |
| P244 | 10000 | 145 | 143 | 1500000 | 6,18 |
| | 100000 | 15 | 16 | | |

♦ Analyses performed according to the COFRAC accreditation