

## Chockfrozen Certified Reference Material Batch Dec-2021

Version 1

| Name<br>Type                  | FR5.5<br>A0   | FR6.1<br>A1   | FR4.0<br>B    | FR3.0<br>C    | FR1.5<br>30   |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Fat</b>                    | <b>5,403</b>  | <b>6,172</b>  | <b>4,679</b>  | <b>2,841</b>  | <b>1,469</b>  |
| <i>Fat, U (abs)</i>           | 0,286         | 0,288         | 0,289         | 0,291         | 0,293         |
| <b>Protein</b>                | <b>4,403</b>  | <b>4,388</b>  | <b>3,727</b>  | <b>3,627</b>  | <b>3,825</b>  |
| <i>Protein, U (abs)</i>       | 0,051         | 0,051         | 0,050         | 0,048         | 0,049         |
| <b>Lactose</b>                | <b>4,760</b>  | <b>4,626</b>  | <b>4,718</b>  | <b>4,797</b>  | <b>4,815</b>  |
| <i>Lactose, U (abs)</i>       | 0,237         | 0,262         | 0,240         | 0,250         | 0,248         |
| <b>Dry Matter</b>             | <b>15,345</b> | <b>16,019</b> | <b>13,900</b> | <b>12,035</b> | <b>10,911</b> |
| <i>Dry Matter, U (abs)</i>    | 0,411         | 0,411         | 0,412         | 0,412         | 0,422         |
| <b>*Casein</b>                | <b>3,465</b>  | <b>3,475</b>  | <b>2,900</b>  |               |               |
| <i>Casein U (abs)</i>         | 0,180         | 0,180         | 0,180         |               |               |
| <b>*Freezing Point</b>        |               |               | <b>0,520</b>  |               |               |
| <i>Freezing Point U (abs)</i> |               |               | 0,003         |               |               |

\* = Indicative values

### Reference

|                |                                                                     |
|----------------|---------------------------------------------------------------------|
| Fat            | ISO 1211:2010, Röse Gottlieb                                        |
| Protein        | ISO 8968-1:2014, Kjeldahl                                           |
| Lactose, mono  | ISO 22662:2017, HPLC - AOAC 982.14, HPLC - ISO 5765:2002, Enzymatic |
| Dry Matter     | ISO 6731:2010, Gravimetric                                          |
| Casein         | ISO 17997-1:2004, Kjeldahl (calculation)                            |
| Freezing Point | ISO 5764:2009, Cryoscope                                            |

Produktion week: Dec-2021  
Validity to week: Dec-2022

Approval date: 27-01-2022

Approved by:

*Sarah Rasmussen*  
CRM Responsible, Sarah Søndergaard Rasmussen



### Informations regarding the Certified Reference Material (CRM):

#### Description

Chockfrozen Danish Raw Milk.

The certified reference values are calculated based on accredited reference method results.  
For Fat, Protein and Dry Matter the CRM reference values comprises results from 7 Laboratories  
For Lactose the CRM reference values comprises results from 5 Laboratories.  
Casein and Freezing point values are determined by 1 laboratory.

Homogeneity is evaluated using the individual results from each laboratory and FTIR analysis values from Eurofins Milk Testing.  
Stability is evaluated based on FTIR analysis results from Eurofins Milk Testing.

The CRM Reference Values are statistically evaluated using Grubbs Outlier Test.

#### Instructions for handling and use:

The Samples are thawed in water bath to reach a temperature of 40±1°C in approx. 50 min.  
Gently invert the samples 20 times and confirm that the sample material looks like natural raw milk.  
The samples are now ready for analysis on a FTIR instrument.  
If the samples are to be cooled before use, do this in a tempered water bath.  
The samples must not be stored and reused.

#### Sample size:

Vials containing 50mL of sample material.

#### Period of validity:

1 Year at < -18°C

#### Storage information:

Store at < -18°C until use.

#### Informations:

If there are any relevant observations regarding the samples, please contact Eurofins Milk Testing  
mail: calibration@eurofins.dk