

## CDR FoodLab® for milk and dairy products



### Analyses on milk and dairy products

L-lactic acid, Ammonia, Chloride, Hydrogen peroxide, Alkaline phosphatase (ALP),  $\epsilon$ -Fructosyl-lysine (Furosine), Peroxidase (POD), Free Fatty Acid, Peroxide value, Lactose, Urea.

## WHAT IS THE CDR FOODLAB® SYSTEM?

CDR FoodLab® is composed of a thermostated analyzer based on photometric technology that uses solid-state emitters (LED); a kit with disposable pre-filled reagents with low toxicity, in package of 10 tests, 1 year shelf life, developed and produced by the research laboratories of CDR.

### ANALYSIS KITS

The use of pre-filled reagents and the analytical methods, developed by the research laboratories of CDR, allow: quick and easy sample preparation, when needed at all; analytical methods extremely fast and easy; removing all needs for calibration procedures.



### REDUCED TESTING TIMES

CDR FoodLab® allows accelerating analysis procedures. It is possible to **analyze 16 samples at the same time** and constantly monitor the production process, obtaining exact and accurate answers in just a few minutes. The multitasking mode allows to **manage the determinations of several analytical parameters at the same time**. It allows the system to process one analysis and to start another one at the same time, with the possibility to go back to the first one at any moment.

of-the-art **LED emitters** at fixed wavelengths (from ultraviolet to the visible spectrum, up to 6 OD). **The results of the analyses are correlated with the reference methods.**



### EASY TO USE

The system is designed to be used **not only in a laboratory**, but real time in the processing plant, even by staff with no previous specific lab tech experience.

The analysis methods are **easier than the traditional ones** and can be performed in few steps:

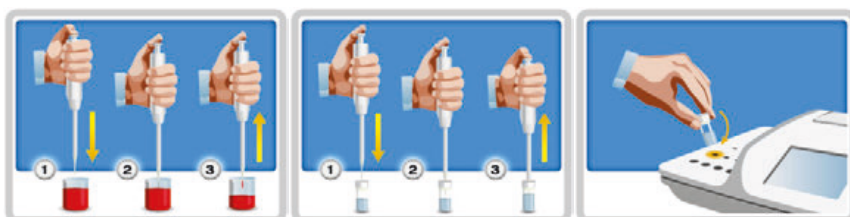
- 1 Adding the sample to the pre-filled reagent.
- 2 Following the displayed instructions and if there is ever a doubt, the HELP function will lead you through the process.
- 3 Results are automatically calculated, displayed and printed.



### RELIABLE

The measuring system guarantees **high sensitivity**, a **wide measuring range**, and an **excellent repeatability of the test results** thanks to the photometric technology based on state-

Each test is performed dispensing in the cuvette containing the reagent a determined amount of the sample. Thanks to the reagents created on purpose, it is generated a colorimetric reaction. The result of the test is printed immediately after the elaboration of the photometric reading, in its unit of measure.



## CDR FoodLab® for milk and dairy products



**The quality control of the production process of milk and dairy products has never been so easy!**

With CDR FoodLab® you will be able to determine in a simple and rapid way L-lactic acid in milk, cream, cheese and yoghurt; ammonia in milk, cream, cheese and yoghurt; chloride in milk, cheese and aqueous solutions; alkaline phosphatase (ALP) in milk; hydrogen peroxide in milk;  $\epsilon$ -Fructosyl-lysine (furosine) in milk; peroxidase (POD) in milk; Free Fatty Acid in butter, margarine and cream; peroxide value in butter, margarine and cream; lactose in milk, cheese and yoghurt; urea in milk. **Everything with just one analyzer.**

CDR FoodLab® analyzes:

Low-fat milk or whole milk, raw or pasteurized, **without any kind of previous sample treatment.**

Cheese, mozzarella, ricotta cheese, yoghurt, butter, margarine and other dairy products, **with an extremely easy sample preparation**, in comparison with the one requested by the official method.



Reagents are pre-vialed, in package of 10 tests, **1 year shelf life**, developed and produced by the research laboratories of CDR.



| TESTS                                     | Measuring range                              | Resolution                 | Repeatability             |
|-------------------------------------------|----------------------------------------------|----------------------------|---------------------------|
| Lactose                                   | 0.01-5.50% lactose                           | 0.01 %                     | 0.02%                     |
| L-lactic acid                             | 2.0 - 250.0 ppm lactic acid                  | 0.1 ppm                    | 3 ppm                     |
| Ammonia                                   | 1.00 - 80.00 ppm of NH <sub>3</sub>          | 0.01 ppm                   | 3 ppm                     |
| Chloride                                  | 50 - 400 mg/dL NaCl                          | 1 mg/dL                    | 5 mg/dl                   |
| Urea                                      | 5.0 - 100.0 mg/dL Urea                       | 0.1 mg/dL                  | 0.5 mg/dL                 |
| Hydrogen peroxide                         | 1.5 - 25.0 ppm H <sub>2</sub> O <sub>2</sub> | 0.1 ppm                    | 3 ppm                     |
| $\epsilon$ -Fructosyl-lysine<br>*Furosine | 10 - 1000 U/L<br>10.0 - 500.0 mg/100 g       | 1 U/L<br>0.1 mg/100 g      | 50 U/L<br>0.5 mg/100 g    |
| Free Fatty Acid<br>on fats                | 0.01 - 1.10 % oleic acid                     | 0.01%                      | 0.02%                     |
| Peroxide value<br>on fats                 | 0.01 - 5.50 meqO <sub>2</sub> /Kg            | 0.01 meqO <sub>2</sub> /Kg | 0.1 meqO <sub>2</sub> /Kg |
| Peroxidase (POD)<br>*Seroprotein          | 100 - 8000 U/L<br>13.60 - 17.70 %            | 1 U/L<br>0.01 %            | 100 U/L<br>0.1 %          |
| ALP Alkaline phosphatase                  | 0.10 - 7.00 U/L of ALP                       | 0.10 U/L                   | 0.1 U/L                   |

\*Indirect determination

ver.1.0 oel