CDR FoodLab® for frying oil

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.

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**WHAT IS THE CDR FOODLAB® SYSTEM?**

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 the determination 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.

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**REDUCED TESTING TIMES**

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**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-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.

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**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.

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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.

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**MANY BENEFITS, ALL IN ONE SYSTEM**

CDR FoodLab®
Quality control systems for food and beverage
It is possible to verify the shelf life of finished products (fried snacks) through the periodic monitoring of oxidation status and rancidity of the oils contained in the different products. To determine the shelf life are no more necessary complicated extractions, toxic solvents, expensive waste disposals and extractor hoods. Risks for the operator are eliminated and the environmental impact is minimized.

With the CDR system you extract the oil to analyze with a simple mechanical treatment. On the oil extracted you can determine in 5 minutes Free Fatty Acids (FFA), Peroxide Value (PV) and p-Anisidine Value (AnV), abandoning the use of toxic solvents, complex analytical instruments and complicated methods.

<table>
<thead>
<tr>
<th>TESTS</th>
<th>Measuring range</th>
<th>Resolution</th>
<th>Repeatability</th>
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</thead>
<tbody>
<tr>
<td>Free Fatty Acids</td>
<td>0.01 - 110 % oleic acid</td>
<td>0.01%</td>
<td>0.02%</td>
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<tr>
<td></td>
<td>1.0 - 3.5 % oleic acid</td>
<td>0.1%</td>
<td>0.2%</td>
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<tr>
<td></td>
<td>10.0 - 26.0 % oleic acid</td>
<td>0.1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Peroxide value</td>
<td>0.01 - 5.50 meqO₂/Kg</td>
<td>0.01 meqO₂/Kg</td>
<td>0.1 meqO₂/Kg</td>
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<tr>
<td></td>
<td>1.0 - 50.0 meqO₂/Kg</td>
<td>0.1 meqO₂/Kg</td>
<td>0.3 meqO₂/Kg</td>
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<tr>
<td></td>
<td>4.0 - 550.0 meqO₂/Kg</td>
<td>0.1 meqO₂/Kg</td>
<td>3 meqO₂/Kg</td>
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<tr>
<td>p-Anisidine value</td>
<td>0.5 - 100.0 AnV</td>
<td>0.1 AnV</td>
<td>0.2 AnV</td>
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</tbody>
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