



## Quality control of soya drinks and soya desserts

Nowadays, more and more people choose to incorporate plant-based foods such as soya drinks, soya desserts and yoghurt alternatives into their diet. All Alpro branded food and drinks, soya drinks, soya desserts and plant-based yoghurt variations are subject to strict quality and microbiological tests.

AtmoSAFE and Carmen van Waeyenberghe, director of the Belgian laboratory supplier Voor't Labo and Memmert distributor, visited the quality laboratory of Alpro, the European market leader for **soya-based** food and drinks, in Wevelgem, Belgium.

## Vital proteins and amino acids in the soya bean

**Soya products** are at the same time healthy and delicious. Furthermore **Alpro soya** drinks, desserts and yoghurt alternatives contain no cholesterol, animal fats, artificial



In the Alpro quality laboratory in Wevelgem, Belgium

preservatives, colourings and sweeteners. That means they are ideal for people that are allergic to milk, lactose intolerant or have problems controlling their cholesterol and weight. Seen on a broader scale, these plant-based food and drinks are good for people and planet. The **soya** bean, which was first grown in China more than three thousand years ago, is a white legume containing about 18 % oil and about 38 % **protein**. Therefore, many people see it as a worthy vegetarian alternative to meat, milk or eggs. **Proteins** are vital components of our body. Present in every one of the trillions of human cells, they perform many essential bodily functions. Without **proteins**, muscles would not develop and hairs would not grow on your head. **Proteins** determine skin texture, control hormonal processes and fight off infections. Since the body cannot store **proteins**, they must be supplied through the diet. However, not all **proteins** are the same. Essential for the human body are the amino acids. As a source of amino acids, the **soya** bean can compete with many animal sources of **protein**.

## Microbiological analysis of UHT products

In food containing a lot of water and **proteins**, such as milk and **soya** drinks, germs are easily accumulated, especially when not refrigerated. Therefore, the **Alpro soya drinks** and **soya** desserts undergo Ultra Heat Treatment (UHT) in what is Europe's largest and most modern production plant for **soya** food before sterile filling. During this ultra heat treatment, the products are sterilised for a short time at a temperature of more than +135 °C. To take no chances, the products undergo accelerated testing in a **Memmert heating oven** before leaving the production site. In accelerated testing samples from the production are exposed to high temperatures from +30 °C to +55 °C. After 3 and 5 days, the pH value is determined and the products are tested for spores - if any - in various analyses. The pH value is a crucial factor in food quality control. Many bacteria are most comfortable in a neutral environment (pH value between 6.6 to 7.5).

## Incubation of fresh samples in the Memmert cooled incubator IPP



Incubation of fresh Alpro samples in the Memmert cooled incubator

In the **Alpro** development laboratory, plant-based yoghurt variations are produced by fermentation with vegan **yoghurt** bacteria and adding fruit, and they are in no way inferior to their cow milk counterparts as far as taste is concerned. In the Wevelgem laboratory, the samples, which are placed on a Petri dish, are incubated at +25 °C in a **Memmert cooled incubator** IPP 400. After 3 or 5 days, the pH value is determined and a **microbiological analysis** performed. Eva Verbauwhede, laboratory teamleader at **Alpro** Wevelgem, especially appreciates the temperature stability, quick recovery time after opening the door, easy operation and clear parameter display of the **Memmert cooled incubator** IPP. Since space is very precious in any laboratory, the excellent relation between working space and space requirements is also a very positive feature.



Memmert and Voor'T Labo at Alpro

## **Peltier technology supports Alpro's sustainability strategy**

Already the company founder Philippe Vandemoortele was fully convinced of the benefits of the soya bean to a healthy diet. Today, **Alpro** has production facilities in Belgium, The Netherlands, France and the UK. About its sustainability activities, the company states, that "grown from nature, our plant powered products are naturally better for the planet. But Alpro has never been content to simply stop there. We're always looking to ways to be more sustainable and eco-friendly, and to lighten the footprint we leave behind us". That's why the energy and resource-saving heating/cooling technology based on Peltier technology the Memmert cooled incubator IPP is equipped with, is perfectly in line with Alpro's sustainability strategy.

AtmoSAFE would like to sincerely thank **Alpro**, especially laboratory teamleader Eva Verbauwhede and Carmen van Waeyenberghe, Voor'T Labo, for the time and effort they have invested in helping with the creation of this article.

About **Alpro**: **Alpro** is the European pioneer and market leader for soya-based drinks and food products (margarines,

## **Incubating beer-spoiling bacteria**

In the beer laboratory of the **Schönram** brewery, an **incubator** and a **hot-air steriliser** from **Memmert** are almost permanently in use.

[more information](#)

desserts and yoghurt, cream and meat alternatives) and is expanding its range with drinks made of almonds and hazelnuts. Alpro products are known under the **Alpro** and Provamel brand names.

**Alpro**, with its headquarters in Ghent, Belgium, employs more than 800 people in Europe today at four production sites in Belgium, France, the UK and The Netherlands.

**Alpro** markets its products throughout Europe, achieved a EUR 280 million turnover in 2011, and continues to grow fast.

More information is available on [www.alpro.com](http://www.alpro.com)

#### **An overview of the main topics**

- Protein, amino acids
- Oven
- Cooled incubator, Peltier technology
- Food quality
- Alpro soya drink, soya dessert, yogurt alternatives
- Ph value, determination of bacterial counts, bacteria, germs, moulds
- Accelerated testing, stability tests, microbiological tests

#### **Laborgeräte zum Bebrüten**

[Incubator I](#)

[Cooled incubator ICP](#)

[Peltier-cooled incubator IPP](#)

[CO2 incubator INCOmed](#)

[Cooled storage incubator IPS](#)

Picture credits: Kris Jacobs Photography –  
[www.positief-online.be](http://www.positief-online.be)

Autor: Memmert GmbH + Co. KG

---

[www.atmosafe.net](http://www.atmosafe.net) > [Applications](#) > [Stability testing](#) > [Soya products](#)

---

AtmoSAFE is a brand of Memmert GmbH + Co. KG  
Copyright © 2009 Memmert GmbH + Co. KG.  
All Rights Reserved.



**memmert**  
Experts in Thermostatics