

## Pasteurised milk

The pasteurisation process consists of a heat treatment for milk to eliminate the bacteria in it. This process needs to be calculated carefully to eliminate any infectious agent, while maintaining the properties and quality of milk.

For pasteurisation, milk is brought to a temperature that ranges between 55°C and 75°C for 17 seconds.



### Alkaline phosphatase and peroxidase

Alkaline phosphatase is an enzyme present in raw milk and progressively inactivated by heating to temperatures above 60°C. Normal low and high pasteurisation temperatures for milk inactivate it. For this reason it must be absent in a properly pasteurised milk. The presence of phosphatase indicates that: either milk has not been subjected to a correct pasteurisation treatment; or it has been contaminated with unpasteurised milk.

Peroxidase has a higher heat resistance than phosphatase. The European directive 92/46 (1992) uses this enzyme to determine the intensity of the pasteurisation treatment, establishing that pasteurised milk must have a negative reaction to phosphatase and a positive reaction to peroxidase.

ALKALINE PHOSPHATASE			
	Art. No.	Description	Pack
<b>Glassware</b>	0033510108	Beaker, low form, graduated, 250 ml	1 u.
<b>Consumables</b>	001-090612	Milk alkaline phosphatase strip kit, Macherey-Nagel	50 u.
	AST-063098	Perositest Kit, approx. 150 tests	1 u.

### Microbiology

This section is governed by ISO 21528 Regulation, which establishes a horizontal method for the detection and enumeration by means of the method for the most probable number of Enterobacteriaceae.

This procedure is applicable to pasteurised milk and liquid dairy products.

MICROBIOLOGY			
General			
	Art. No.	Description	Pack
<b>Glassware</b>	124-16160B	Glass test tubes, 20 ml, Ø16 mm, 160 mm	250 u.
<b>Consumables</b>	PPP0110001	Graduated plastic Pasteur pipettes, sterile, 5 ml	500 u.
	PSC0603001	Specimen container made of polypropylene, sterile, 60 ml, with wrapped cap	400 u.
	PIL0030120	Sterile inoculation loop, 1 µl, made of PS	1000 u.
	PPD-90143E	Sterile petri dish, Ø 90 mm with 3 vents	480 u.
	000P5202-1	Universal pipette tip, 5-200 µl	1000 u.
<b>Equipment</b>	00LH729060	Mechanical pipette, 20-200 µl, Sartorius	1 u.
Enterobacterias			
<b>Microbiology**</b>	02-277-500	Buffered Peptone Water (ISO)	500 g
	06-077-100	Glucose Oxidation/Fermentation Fluid Medium Base	100 ml
	01-635-500	Nutrient Agar (ISO)	500 g
	06-120-050	Oxidase reagent, swabs	50 u.
	01-295-500	Violet Red Bile Dextrose Agar (VRBD Agar) (Eur. Ph.)	500 g

\*\*Other presentations and packaging available.