

# Technical Information

## Propionibacterium 50

### DESCRIPTION

Active ingredients	Blend of strains of <i>Propionibacterium freudenreichii</i> subsp. <i>shermanii</i>
Other ingredients	Lactose
Concentration	500 billion (min>450 billion at release) /DOSE
Appearance	Free-flowing powder, beige color, slightly granulated
Dosage	10 DO / 5000 L *

\* The quantities of inoculation indicated should be considered as a guideline.

### CULTURE CHARACTERISTICS

Cheese maturation	15-35 °C
Salt tolerance	>5%
Gas production	Yes

### APPLICATION

This blend contains strains that were selected for their compatibility and optimal production of propionic acid and CO<sub>2</sub>, for their resistance to high-cooking temperatures and for their resistance to salt and lysozyme. This product is used in the ripening of Swiss-type cheeses such as Emmenthal, Gruyère, Jarlsberg, Comté, Tilsit and Appenzeller to impart nutty flavor and eye formation.

### STORAGE CONDITIONS

Stable in its original sealed packaging for 18 months if frozen (-20 °C) or 12 months if it is kept between 2 and 8 °C.  
Store in an odor free and dry conditions (R.H. < 50%).

### QC SPECIFICATION

Each production lot of Biена is analyzed and required to pass the following microbiological standards

Coliforms	< 10 CFU /g	MFHPB-31
<i>E. coli</i>	< 2 MPN /g	MFHPB-19
<i>Salmonella</i> spp	Negative in 25 g	MFHPB-20
<i>S. aureus</i>	Negative by test (< 5 CFU /g)	MFHPB-21
Enterococci	< 1000 CFU /g	MEF-KF
<i>Listeria</i> spp.	Negative in 25 g	MFHPB-30
Yeast & Molds	< 100 CFU /g	MFHPB-22

**Statement** GMO free, TSE-BSE free, Food grade

**Certification** MKosher Dairy, Halal

**Country of origin** Canada

**SDS** Available upon request

### ALLERGENS contains MILK

This product is free from the following allergens: peanuts, tree nuts, sesame, eggs, fish, crustaceans, shellfish, soy, wheat, triticale, mustard and sulfites.

### HANDLING

Allow powder to come to room temperature prior to opening the package. Add the content of the package directly to the milk and mix thoroughly to distribute the culture evenly.

### PACKAGING

75437 – 2.5 DO  
75413 – 10 DO  
75418 – 40 DO  
75410 – 1000 DO