



**GENESIS BMC SERIES**

## **STARTER CULTURES**

### **Description**

- ▶ Concentrated freeze-dried blended mesophilic and thermophilic multi strain cultures
- ▶ Optimized combinations of compatible selected bacteriophage resistant strains
- ▶ Activity – the number of viable active cells is  $1 \times 10^{10}$  CFU per gram
- ▶ Strains are not genetically modified

### **Packing and storage conditions**

- ▶ GENESIS cultures are packed in three layer folio sachets in doses for a fixed amount of milk
- ▶ Cultures for bulk starter preparation – 100, 200 l. They assure the obtaining of an active liquid bulk starter culture.
- ▶ Direct starter cultures for 500, 1000, 1500, 2000, 5000 l
- ▶ Freeze-dried GENESIS cultures preserve their production qualities for a year when stored at  $0 \div 10^{\circ} \text{C}$  in dry premises. GENESIS cultures allow transportation without special cooling for no more than 72 hours.
- ▶ The Bifidobacterium strains pass the gastric barrier, have a good metabolic activity in the intestinal ecosystem, implant on the intestinal walls, suppress the growing of unwanted types of microorganisms, detoxify the organism and stimulate the immune system.

## Purity

Coliforms ( ISO 4831,ISO 4832)	CfU/g; MPN	Absent
Escherihia coli (ISO 7251)	CfU/g; MPN	Absent
Salmonella species (ISO 6579)	in 25,0 g	Absent
Staphylococcus aureus (6888-1-3)	CfU/g; MPN	Absent
Listeria monocytogenes (ISO 11290-1)	in 25,0 g	Absent
Yeast and moulds (ISO 7954)	CfU/g	< 5

## Chemical standards

Pb	< 0,10 mg/kg	Cd	<0,10 mg/kg	As	<1,00 mg/kg
Hg	< 0,03 mg/kg	Cu	< 1,00 mg/kg	Zn	< 1,00 mg

## Dosage

Activity units (U) in relation to liters	Amount of milk (mixture) for fermentation (l)
1	100
5	500
10	1000-1500
20	2000-2500
50	5000



## Alternative cultures

▶ **BMC-34**   ▶ **BMC-35**   ▶ **BMC-36**   ▶ **BMC-40**

## Compositioin

*Lactococcus lactis sp. lactis*

*Lactococcus lactis sp. cremoris*

*Lactococcus lactis sp. lactis biovar. diacetylactis*

*Leuconostoc mesenteroides sp. cremoris*

*Streptococcus salivarius sp. thermophilus*

*Bifidobacterium complex*

## Application

- ▶ The resulting product is characterized with creamy consistency, high texture, pleasant taste and flavor.
- ▶ The cultures have a low level of gas production and low post acidification.
- ▶ They are suitable for production of set bio sour cream and fermented milk beverages.



## Technological modes

Name of the product	Temperature, °C	Fermentation time, hour	pH
Bio Sour Cream	36 ±1	7 ÷ 8	4,8 ±1

## Fermentation activity

	0:00	1:00	2:00	3:00	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00
36°C	6,60	6,56	6,54	6,39	5,91	5,62	5,36	5,21	5,13	5,09	5,00	4,95	4,82

36°C	24:00
pH	4,60

- ▶ The information is based on laboratory experiments and is approximate for manufacturing conditions.
- ▶ Nutritional medium used: non-fat reconstituted milk (10% solids), heated for 45 minutes at 99 ° C and standardized to pH 6.6 ± 0.5.
- ▶ Each consumer should carry out his own tests based on our recommendations and determine the suitability of the starter culture depending on the quality of raw materials, technology, equipment in each case.