### SUMMARY TECHNICAL SPECIFICATION

### NAME OF THE APPELLATION OF ORIGIN:

### Brînză de Popeasca

## CATEGORY OF THE PRODUCT FOR WHICH THE NAME IS PROTECTED (Annex XI of R. (EU) $N^{\circ}$ 668/2014)

1.3. Cheeses Sheep milk cheese.

### **APPLICANT:**

Public association of sheep and goat breeders from the Ştefan Vodă district, MD, MD-4228, Popeasca, Ştefan Vodă, Republic of Moldova

### PROTECTION IN THE STATE OF ORIGIN

AGEPI's decision no. 11005 of 23.09.2016 on registration of appellation of origin Brînză de Popeasca [http://www.db.agepi.md/GeogrIndications/Details.aspx?id=3581]

### DESCRIPTION OF THE AGRICULTURAL PRODUCT OR FOODSTUFF

The product with the appellation of origin - "Brînză de Popeasca" - is a natural food product, obtained from the milk of sheep, entirely non-standart and/or with the mixture of the goats in the proportion of up to 25%, which has a fat content which has not been modified from the milking stage by adding or removing fats, or mixing it with milk of goats whose content of natural fats has been modified.

The finished product is considered the matured cheese and preserved in brine, being prepacked in closed packages (boxes, plastic containers, bags of polyethylene for food wrapped by vacuum packing) according to the normative documents in force, which do not change the quality, including safety of the product.

It is important that the coagulation of the raw material (milk) is made using exclusively the natural clot, obtained from the sacrificed lambs for the skin during the first 2-4 days after birth, which is preserved and dried with salt.

Preservation of fresh cottage cheese, after draining the serum, is carried out in brine, prepared from cold water extracted from the well, with the kitchen salt non-iodized, what still allows the keeping of the specific organoleptic properties (taste, consistency, etc.). The temperature of the brine is -15 -17°C.

Maintaining the qualities of the product also contributes to the fact that the water used in the preparation of brine is naturally characterized by moderate hardness (16, 24 German degrees) and a pH close to neutral values - 7.8.

The organoleptic characteristics of the "*Brînză de Popeasca*" correspond to the basic requirements for soft cheeses (with clot) according to the "Milk and Dairy Products" Technical Regulation and the characteristics indicated in Table 1.

<u>Tabel 1</u>
Organoleptic qualities of the product with the Appelation of Origin "Brînză de Popeasca"

Characteristics	Admissibility Conditions
Appearance and colour	Without shell or with a poorly visible soft shell. White or slightly yellowish color, with no yellow spots on the surface.
Consistency and appearance in the section	Totally homogenous, compact, slightly crumbly. Without drawings, but some fermentation meshes with round, oval or irregular shape admitted.
Taste and smell	Poorly acidified, moderately salty, with no foreign taste and smell.

The physicochemical characteristics of "Brînză de Popeasca" correspond to the basic requirements for soft cheeses, which are included in the specification of "cheeses in brine" according to the "Milk and Dairy products" Technical Regulation, having the admissible limits indicated in Table 2.

# <u>Table 2</u> Limits of admissible physicochemical indices of the product with the appellation of origin "Brînză de Popeasca"

Characteristics	Admissibility Conditions
Mass fraction of humidity, %	45,0 - 60,0
Fat content of dry matter (including proteins)%	55,0-65,0
Mass fraction of NaCl, %	5,0 - 7,0

According to Table 2, a high nutritional value of the product is derived from the high concentration of casein and lactic fat – nutrients that are easily absorbed by the human body, which contribute to a balanced diet.

Due to the organoleptic peculiarities and the specificity of the physicochemical indices of the product, it is consumed as it is in the form of canapes or appetizers, mainly with fresh vegetables (tomatoes, radishes, sweet peppers, green onions, ect.). It is a special ingredient in dishes, especially pastries such as traditional pies. It is recommended for adults, adolescents, young people and children aged over one year. Due to the fact that the product is not rich in hydrocarbons(carbohydrates) but high in protein, it can be consumed by people with diabetes and those affected by obesity.

### **RAW MATERIALS:**

Milk – the raw material for preparation of the "Brînza de Popeasca" is obtained under the conditions specified in the sanitary veterinary norm regarding the health conditions for the production and placing on the market of raw milk, heat-treated milk and milk-based products, approved by the Order of the Ministry of Agriculture and the Food Industry of the Republic of Moldova no. 173 of 14.07.2006.

Raw material(raw milk) must be pure, free of foreign smell and taste, not characteristics for natural fresh milk.

The organoleptic characteristics of milk - raw material for the manufacture of the product with the appellation of origin "Brînza de Popeasca"

Characteristics	Admissibility Conditions
Appearance and consistency	Homogeneous liquid without sediment and flocculation.
Taste and smell	Pleasant, slightly sweet, smell of sheep's milk, with no foreign taste and smell. Light feed smell and taste is admitted.
Colour	White with slightly yellowish.

Physico-chemical characteristics of milk - raw material for the manufacture of the product with the appellation of origin "Brînza de Popeasca".

Characteristics	Admissibility Conditions
Purity Group by Standard (not below)	П
Acidity, °T	17,5-25
Density °A (kg/m.c.), minimum	34 (1,034)
Mass fraction of fat (%)	6,0-10,0
Mass fraction of proteins (%), minimum	4,0
Mass fraction of dry skimmed-milk powder (%), minimum	8,0

Mass fraction of lactose (%), minimum	3,7
Cryoscopic temperature (°C), maximum	minus 0,520

### SPECIFIC METHODS OF PRODUCTION / PROCESSING:

The unit where the process of manufacturing the product under the appellation of origin "Brînza de Popeasca" takes place is located in Popeasca village, Ştefan-Vodă district.

The entire flow of the production process till the commercialization, depending on the qualities of the raw material, it is based on the following steps / operations:

qualities of the raw material, it is based on the fo	qualities of the raw material, it is based on the following steps / operations:		
METHOD – I	METHOD – II		
For raw milk- raw material	for pasteurized milk - raw material		
Obtain milk by mechanized milking	Obtain milk by manual milking		
Reception, purification and cooling of milk			
Microbiological control and chemical composition of milk			
	Pasteurization of milk inappropriate for processing without heat treatment		
	cooling the pasteurized milk to the temperature of $35 \pm 2^{\circ}C$ ;		
	performing the phosphatase test		
dosing and introduction of the clot			
homogenizing milk with coagulant and coagulating milk			
coagulation processing and serum drain (3-6 hours)			
preparing brine and checking the NaCl concentration			
cutting of sweet curd (formatting) and hardening of curd (wet salting - 24 hours)			
Cheese salting and maturing (at least 30 days)			
organoleptic examination of the cheese			
microbiological control and chemical composition control of the product			
weighing, sorting and pre-packing of slices / pieces of brine cheese depending on the slices wight and their commercial appearance (shape) (indifferent of the method applied to the manufacture)			
labeling the cheese in the sales package			
storing and preserving pre-packed cheese until packing and delivery to the trade network			

### CONCISE DEFINITION OF THE GEOGRAPHICAL AREA

The product with the appellation of origin "Brînză de Popeasca "originates from the geographically defined territory comprising the following settlements: Popeasca, Ermoclia, Talmaza, Feștelița, Slobozeia, Copceac, Volintiri, located in Causeni and Stefan Voda districts, within the Ramsar Area.

### LINK WITH THE GEOGRAPHICAL AREA

The defined geographical area of production of "Brînză de Popeasca" is a specific one from the point of view of the composition of herds of raised sheeps, those being represented by the half-blood sheeps, obtained from spontaneous pairings over the decades between the Karakul sheeps with the local Tusca breed and the Tigaie breed (direct and reciprocal) sheeps, which represents about 70% of the flocks of sheep farms with the increased share of the Karakul breed, which have quite good quality of skin (about 15%), pure Tigaie breed sheeps of Moldavian type for wool - milk (7-10%) and goats (5-7%). The respective herd composition (structure) favors the production of a mixture of milk with a chemical composition and a

balancing technological aspect, which ultimately imparts a specific taste particular to the product "Brînză de Popeasca".

Unlike other areas of the republic, especially the South (where exclusively Tigaie sheeps are grown) or the North, where only Karakul sheeps are grown, "Brînză de Popeasca" production technology differs by original elements such as the exclusive use of natural lamb clot and wet salting of fresh curd immediately after rapid serum drain, which lasts up to 2 hours.

Compared to the sheep cheese made in the South, "Brînză de Popeasca" has a finer consistency, and compared to the cheese made in the northern area of the republic - it differs in a sweet taste (low acidity) and does not contain holes caused by air bubbles formed by the microflora that grow abundantly during the so-called fermentation - a process that starts from the drain of the mass of curd that is achieved by hanging in the sackcloth, after what there is still a few more hours left to form the holes.

At the same time, the quality of the product is influenced by the fact that sheep from the geographically delimited area are extensively exploited from the point of view of nutrition and feed assortments involved in herd nutrition. The basic food for sheep herds for about 8 months of the year represents the spontaneous flora on the natural pastures. The rest of the month which includes the second gestation period of females and partly lactation of lambs (December, January, February and March) - sheep are kept in stables. In this period the food consists of Lucerne hay (40-50%), the cochineals of maize (20-30%), barley and wheat straw (10-15%), processing residues of primary grains, including sunflower seeds (5-7%), pomace of apples and grapes (5%) and concentrates (5%).

It is important to note that this technology of growth and exploitation of sheep in the area has a tradition of over a century, being formed under the influence of the geographical and climatic specificity of the region, which imprinted certain optimal ratio between phytotechnical, horticultural and zoo technical activities, with reference when raising sheep, milking them, processing milk into cheese and preserving it for marketing and domestic consumption of the family until the new milking season of sheep.

At the same time, the health of sheep and goats (natural resistance to diseases) grown in the reference area is favored by temperate-continental climate specific, influenced, first of all, by the Black Sea on which they reflect air masses from the Atlantic Ocean.

### **CONTROLS**

Agentia Natională de Siguranta Alimentelor, Subdiviziunea teritorială Stefan-Vodă (or. Stefan-Vodă);

Laboratorul Tehnologii de Creștere și Exploatare a Ovinelor și Caprinelor al Institutului Stiințifico-Practic de Biotehnologii în Zootehnie și Medicină Veterinară (r-nul Anenii Noi, s. Maximovca);

Laboratorul Tehnologia Laptelui și a Cărnii a Institutului StiintificoPractic de Horticultură și Tehnologii Alimentare (mun. Chișinäu).

### SPECIFIC RULES CONCERNING LABELLING (IF ANY)

For the pre-packing of "Brînză de Popeasca» product, plastic containers, hermetically sealed jars, vacuum packing are used, in compliance with the provisions of the Food Law no. 78- XV.

The name "Brînză de Popeasca" shall be followed by the statement "Protected appellation of origin", and by the indication "without or with goat's milk"