

# Solpro<sup>®</sup>

2022

## INDUSTRIAL DAIRY INGREDIENTS

VEGETABLE NON-DAIRY  
POWDERED CREAMER

WHEY FAT CONCENTRATE

DEMINERALIZED WHEY POWDER

PASTEURIZED CREAM, RAW MATERIAL

GOST BUTTER







## About us

RUSAGRO Group is one of the largest Russian vertically integrated agricultural holding companies. It is currently a leader in pork, sugar, crop, oils and fats markets.

RUSAGRO has been recognized as one of the most profitable and fastest growing consumer goods companies in the CIS.

Cutting edge technology is integrated across the Company, both in terms of equipment and management practices.

# #1

**sunflower oil  
manufacturer**

# #1

**consumer  
margarine  
manufacturer**

# #2

**market player  
in fats for food  
industry**

# #2

**mayonnaise  
manufacturer**



**"Partnership is based on trust, integrity, the conviction that the other party, as a tower of strength, will not let you down. These are deeply personal categories people usually don't talk about."**

*A. Zuevich,  
Head of Product Promotion Department,  
Fats for Food Industry Division, RUSAGRO*



Oils and Fats Business of RUSAGRO sells oilseed processing products (pressed and extracted vegetable oil in bulk, extracted meal, husk), manufactures and sells consumer products (mayonnaise, margarines, spreads, mustard, ketchup, bottled vegetable and soybean oils, high-oleic sunflower oil, toilet and laundry soap), as well as manufactures and sells fat products for food industry (fats and margarines for confectionery and bakery industries, milk fat substitutes for the dairy industry, vegetable oils and frying fats).

The Company employs more than 19,000 people. The Group considers its employees to be its greatest and most essential asset, giving them opportunities to unlock their potential, develop their knowledge and skills, and participate in many interesting and innovative projects.

We decided to launch a project to develop a sustainable RUSAGRO development strategy aimed at maintaining steady growth, creating more value and increasing the transparency of non-financial information disclosure.





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## Vegetable non-dairy powdered creamer

### DESCRIPTION

A vegetable non-dairy powdered creamer is a product produced by spraying a fat emulsion consisting of various vegetable fats and milk proteins, with or without food additives and flavors using spray drying equipment.

### INTENDED FOR VARIOUS INDUSTRIES:

- Production of powdered creamer in individual serving packs
- Production of coffee drinks
- Production of instant food: porridge, noodles, mashed potatoes

### BENEFITS OF USING:

- Quickly dissolves in cold water
- Lactose-free. Good choice for people with lactose intolerance
- Extended storage period (24 months)



SENSORY PARAMETERS

Parameter	Description
Consistency and appearance	Finely dispersed or agglomerated dry powder. Can contain lumps easily broken when touched
Flavor and odor	Milky, somewhat sweet, no foreign tastes or odors
Color	From white to light yellow

PHYSICAL AND CHEMICAL PARAMETERS

Parameter	Value
Mass fraction of moisture, %, max	5.0
Fat mass fraction, %	10.0–60.0
Solubility index, cm³ of crude sediment, max	0.3
Protein mass fraction, %, min	0.5
Acidity, °C, max	21.0
Purity group, min	1

SHELF LIFE, STORAGE CONDITIONS AND PACKAGING

Shelf life, temperatures		Storage conditions	Packaging
Storage temperature, °C	Shelf life, months		
0–25 °C at relative humidity below 85%	24	<p>Storage areas should be clean, dry and well ventilated.</p> <p>The product shall not be stored together with products with strong characteristic odor.</p> <p>The product must be packed in inner packaging, stacked in pallets, with the pallet wrapped in film.</p>	<p>Non-impregnated four-ply paper bags with polyethylene liner bags.</p> <p>Net weight: 25 kg</p>





# Whey fat concentrate

## DESCRIPTION

Whey fat concentrate is a product with 100% replacement of dairy fat by non-dairy fat, produced by thickening or mixing liquid ingredients of dairy, vegetable and/or animal origin with the addition of non-dairy components, including non-dairy fats and/or non-dairy proteins, and with or without food additives, flavors, followed by drying the mixtures with spray drying equipment.

## INTENDED FOR VARIOUS INDUSTRIES:

- Confectionery: chocolate pastes, candy fillings, glazes and desserts
- Bakery: bread, rolls, muffins, breadcrumbs, bagels, etc.
- Component in the manufacture of whole milk substitutes for calf rearing

## BENEFITS OF USING:

Powdered structure of the product simplifies mixing with other ingredients.





SENSORY PARAMETERS

Parameter	Description
Consistency and appearance	Finely dispersed or agglomerated dry powder. Can contain lumps easily broken when touched
Flavor and odor	Milky, somewhat sweet, no foreign tastes or odors. Taste and odor of non-dairy ingredients is allowed
Color	From white to light yellow or cream white, homogenous throughout the mass

PHYSICAL AND CHEMICAL PARAMETERS

Parameter	Value
Mass fraction of moisture, %, max	5.0
Protein mass fraction, %, min	1.0
Fat mass fraction, %, max	10.0–60.0
Acidity, pH, max	21.0
Purity group, min	II
Solubility index, cm <sup>3</sup> of crude sediment, max	0.3

SHELF LIFE, STORAGE CONDITIONS AND PACKAGING

Shelf life, temperatures		Storage conditions	Packaging
Storage temperature, °C	Shelf life, months		
0–25 °C at relative humidity below 85%	12	Storage areas should be clean, dry and well ventilated.  The product shall not be stored together with products with strong characteristic odor.  The product must be packed in inner packaging, stacked in pallets, with the pallet wrapped in film.	Non-impregnated four-ply paper bags with polyethylene liner bags.  Net weight: 25 kg



VEGETABLE NON-DAIRY  
POWDERED CREAMER

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DEMINERALIZED WHEY POWDER

PASTEURIZED CREAM, RAW MATERIAL

GOST BUTTER



# Demineralized whey powder

## DESCRIPTION

Demineralized whey powder is produced from whey by partial concentration of solids in nanofiltration units followed by drying with spray drying equipment.

## INTENDED FOR VARIOUS INDUSTRIES:

- Confectionery: chocolate products
- Bakery: bread, rolls, muffins, breadcrumbs, bagels, etc.
- Dairy industry: condensed milk, ice cream
- Component in the manufacture of whole milk substitutes for calf rearing

## BENEFITS OF USING:

- Excellent soluble in water, does not form lumps
- Demineralization: 25%





SENSORY PARAMETERS

Parameter	Description
Consistency and appearance	Finely dispersed dry powder
Flavor and odor	Clean, sweet whey taste. Whey odor. No foreign tastes or odors
Color	White with a yellow tint, homogenous throughout the mass

PHYSICAL AND CHEMICAL PARAMETERS

Parameter	Value
Mass fraction of moisture, %, max	4.0
Protein mass fraction, %, min	7.8
Fat mass fraction, %, max	1.0
Lactose mass fraction, %, max	77.8
Ash mass fraction, %, max	6.5
Active acidity, pH, min	6.0
Purity group, min	II
Temperature, °C, max	20.0
Solubility index, cm³ of crude sediment, max	0.5

SHELF LIFE, STORAGE CONDITIONS AND PACKAGING

Shelf life, temperatures		Storage conditions	Packaging
Storage temperature, °C	Shelf life, months		
0–20 °C at relative humidity below 80%	12	<p>Storage areas should be clean, dry and well ventilated.</p> <p>The product shall not be stored together with products with strong characteristic odor.</p> <p>The product must be packed in inner packaging, stacked in pallets, with the pallet wrapped in film.</p>	<p>Non-impregnated four-ply paper bags with polyethylene liner bags.</p> <p>Net weight: 25 kg</p>





## Pasteurized cream. Raw material

### DESCRIPTION

Pasteurized milk cream is a multiphase polydisperse system. It consists of the same components as milk but with a different ratio between the fat phase and the plasma. Pasteurized milk cream is produced during separation of cow's milk without adding colorants, flavors or stabilizers, without replacing dairy components with non-dairy components.

### INTENDED FOR VARIOUS INDUSTRIES:

- Dairy industry: sour cream, butter, spreads, half-and-half, whipping cream, milk desserts, ice cream, cream cheese
- Baking and confectionery: making dough, custard, sour cream glaze





SENSORY PARAMETERS

Parameter	Description
Consistency and appearance	Homogeneous. Single lumps of fat possible
Flavor and odor	Strong, clean, sweetish cream taste. Pasteurized cream has a pasteurization flavor
Color	White with a creamy tint, homogenous throughout the mass

PHYSICAL AND CHEMICAL PARAMETERS

Parameter	Standard for cream	
Fat mass fraction, %	30 – 40	40 – 50
Heat stability according to the alcohol test, min	I-III	
pH	6.5 – 6.8	
Protein mass fraction, %	1.7	1,4
Mass fraction of skimmed milk solids	5.8 – 5.0	5.8 – 4.2
Titratable acidity, oT	12.0 – 16.0	11.0 – 15.0
Temperature, °C	2–8	
Density at 20 °C, kg/m³	995 – 985	985 – 976
Phosphatase	None	
Peroxidase	None	

SHELF LIFE, STORAGE CONDITIONS AND PACKAGING

Shelf life, temperatures		Storage conditions	Packaging
Storage temperature, °C	Shelf life		
2–6	Maximum time between reception of raw milk and production of cream: 24 hours.  Maximum storage time of pasteurized cream in manufacturing plant: 24 hours.	Separate stainless steel tank	Cream for industrial processing shall be transported in road milk tankers of at least 20 tons in accordance with the rules for transportation of perishable goods applicable to the relevant means of transport. Vehicles shall provide for maintenance of temperature specified in this standard. No freezing is allowed.





## GOST butter

### DESCRIPTION

Butter is produced by converting high-fat dairy cream into butter.

### INTENDED FOR VARIOUS INDUSTRIES:

- Dairy industry: packaged butter, spreads, combined butter, soft butter and pastes, sour cream, ice cream, condensed milk, cottage cheese products, processed cheese
- Confectionery: pastry and puff pastry, cream, cakes.





SENSORY PARAMETERS

Parameter	Description
Consistency and appearance	Dense, plastic, homogeneous or not dense and plastic. Cut surface is shiny and dry. Faintly shiny or matte surface with small droplets of moisture possible
Flavor and odor	Strong cream taste and pasteurization flavor, no foreign tastes or odors
Color	From light yellow to yellow, homogenous throughout the mass

PHYSICAL AND CHEMICAL PARAMETERS

Parameter	Standard	Standard
Fat mass fraction, %, min	72.5	82.5
Mass fraction of moisture, %, max	25.0	16.0
Titratable acidity of plasma, °T, max	26.0 23.0 (Rosrezerv*)	26.0
pH of the butter plasma, min	6,25	6.25
Fat phase acidity, °K, max	4,0 2,5 (Rosrezerv)	4.0
Heat stability	0,7-1,0 0,75-1,0 (Rosrezerv)	0.7-1.0

\*Federal Agency for State Reserves of the Russian Federation

STORAGE CONDITIONS AND SHELF LIFE

	20 kg block
Storage temperature and shelf life	Maximum 15 months at temperature from -14 to -18 °C and relative humidity from 80–90%; Maximum 10 days at temperature from +1 to +5 °C and relative humidity below 90%. Federal Agency for State Reserves of the Russian Federation: maximum 24 months at temperature below -25 °C and relative humidity above 60%.



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POWDERED CREAMER

WHEY FAT CONCENTRATE

DEMINERALIZED WHEY POWDER

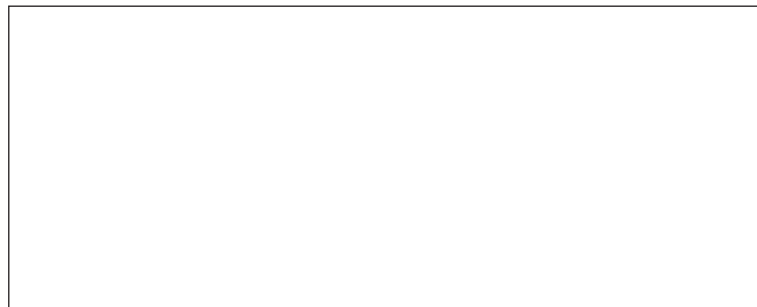
PASTEURIZED CREAM. RAW MATERIAL

GOST BUTTER



# Contacts

Your distributor:



Ask your question in the chat  
on our website, or by phone:

**8-800-700-79-00**



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