

PRODUCT DESCRIPTION - PD 203414-1EN

MicroGARD® 100

Cultured Grade A Skim Milk

Description

MicroGARD® 100 is an off-white free flowing powder designed to protect product flavor and provide more reliable shelf life in foods. MicroGARD® 100 is a highly effective bioprotectant consisting of fermentation metabolites of dairy cultures.

MicroGARD® 100 contains natural metabolites that may retard microbial growth in numerous food products when used in combination with heat processing, pH and other formulation adjustments. MicroGARD® 100 is effective against select Gram negative bacteria, yeast and molds.

Application areas

Cheese blends, Cottage cheese, Yogurt, Sour cream
Meal replacements
Fresh pasta, Pasta fillings
Sauces, Salad dressings
Fresh soups
Spreads

Properties

- Retards growth of Gram negative bacteria and selected yeast and molds
- Protects shelf life by maintaining the intrinsic organoleptic qualities of the finished products
- May reduce or eliminate dependence on synthetic preservatives
- Potential reduction of customer / consumer claim and product return allowing product and brand image improvement
- Improved label appeal for consumers

MicroGARD® 100 's fermentation mixture works in conjunction with other microbial hurdles to optimize shelf life and maintain packaged freshness.

Usage levels

MicroGARD® 100 usage rates vary as a function of initial food product quality, product pH, water activity, etc. Below are examples of some current applications for MicroGARD® 100 :

APPLICATIONS	USAGE LEVEL
Cheese blends	0.5 to 1.0 %
Cottage Cheese	0.1 to 0.5 %
Yogurt	0.3 to 0.6 %
Sour Cream	0.3 to 0.6 %
Meal replacements	0.5 to 1.0 %
Fresh Pasta, Pasta fillings	0.5 to 1.5 %
Sauces, Salad dressings	0.5 to 1.5 %
Fresh soups	0.5 to 1.5 %
Spreads	0.5 to 1.0 %

Directions for use

- MicroGARD® 100 should be added as soon as possible to the aqueous portion of the formula.
- Product pH should be monitored, particularly after the addition of MicroGARD® 100 , as there may be a tendency of the pH to rise.
- Good manufacturing practices are a prerequisite for the use of MicroGARD® 100 .

Composition

Skim milk
Cultured skim milk (Wholly pasteurized product)

Physical/chemical specifications

PHYSICAL PROPERTIES:
Off-white free flowing powder

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Microbiological specifications

Microbiological Analysis - Values and analytical reference methods:

Standard Plate Count	< 5,000 / g (AOAC 990.12)
Yeast	< 50 / g (AOAC 997.02)
Mold	< 50 / g (AOAC 997.02)
Coliforms	< 1 / g (AOAC 996.02)
E.coli	< 0.3 / g (AOAC 966.23)
Staphylococcus (coagulase +)	< 10 / g (AOAC 987.09)
Salmonella	neg. / 40 g (AOAC 996.08)
Listeria	neg. / 25 g (AOAC 999.06)

Nutritional data

ANALYSIS	TYPICAL VALUES
Calories	323 /100 g
Fat	0.5 g
Protein	29.4 g
Moisture	2.1 g
Ash	17.7 g
Sodium	4,206 mg /100 g
Carbohydrates	50.3 g

Storage

Unopened bags of MicroGARD® 100 retain optimum functionality for up to 12 months in a cool (<25°C / <77°F) dry environment.

Packaging

MicroGARD® 100 is available in 50 lb. (22.7 kg) multi-walled paper bags with a poly liner. 40 bags per pallet.

Purity and legal status

MicroGARD® 100 has a long history of safe use as a food ingredient. It is generally recognized as safe (GRAS) for use in selected foods including meat and poultry containing products. Label declaration is dependant on the final application.

Local regulations should always be consulted concerning the status of this product, as legislation regarding its use in food may vary from country to country.

Safety and handling

A Material Safety Data Sheet (MSDS) is available on request.

Country of origin

United States of America

Kosher status

Organized Kashrus Laboratories, Kosher for Dairy.

GMO

The raw materials used in the production of this product do not contain or consist of GMOs, and are not produced from GMOs.

The substrates and carriers used in the production of this product do not contain or consist of GMOs and are not produced from GMOs.

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Allergens

The below table indicates the presence (as added components) of the following allergens and products thereof.

Yes	No	Allergens	Description of components
	X	Celery	
	X	Eggs or Egg Products	
X		Milk (including lactose)	Grade A NFD
	X	Peanuts	
	X	Soybeans	
	X	Sulfites	
	X	Grain Products (barley, oats, rye, wheat)	
	X	Seeds (cotton, poppy, sesame, sunflower)	
	X	Seafood, Crustaceans, or Mollusks	
	X	Tree Nuts	

Additional information

MicroGARD® 100 is protected under U.S. patents 5096718, 5260061, 5635484 and Canadian patent 1218894 (other patents pending).