

Seeking Companies interested in the Production of Patented Low Fat, Reduced Sodium Cheese

The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the commercialization of a patented process to make low-fat mozzarella-type cheese with improved texture and baking properties. If your company in producing food products that contain low or reduced fat cheese as an ingredient or you are considering the development of products in this category, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

Technology

- The patented process for manufacturing this cheese includes the use of food-grade emulsifiers (monoglycerides and diglycerides) to modify the texture and melt of nonfat cheese, rather than sodium citrate or sodium phosphate melting salts that are used in process cheese. This change in ingredients allows the cheese to be categorized as a reduced-sodium normal cheese. Another key to the process is the addition of acid to the fat-free or skim milk curd, which improves the melt of the cheese while also reducing curd stickiness. This cheese does not require aging for excellent performance (e.g. stretch) in baking applications or on pizza.

Functional/Nutritional Benefits

- The cheese that results from this patented process will be no more than six percent fat (if you include the “fat” from the glycerides) so it is an ideal candidate for use in low-fat pizzas and frozen-food entrees. For example, in combination with pizza components that are also low in fat/sodium, such as the crust and sauce, this cheese provides a low-fat, reduced-sodium pizza option for commercial or school lunch program applications. Note that this cheese can be blended with more flavorful cheeses, or other flavors, for use on a pizza or as a part of a food application. The cheese is also higher in protein than traditional mozzarella.

Economic Benefits

- While some low-fat or reduced-sodium cheeses are available on the market, this particular cheese maintains desirable attributes such as stretch, melt and color that other low fat or reduced sodium cheeses lack. One of the key drivers for the increase in demand for low-fat cheese is the growing health consciousness among consumers. Moreover, the school lunch program is now requiring the use of lower fat and lower sodium food products in all meals, opening the door for this market.

	Typical low moisture part skim mozzarella	CDR low-fat and reduced sodium mozzarella-type
Calories from Fat (per 28g)	50	<9
Sodium (mg/28g)	180	113
Moisture (%)	47	61
Protein (%)	26	32
Fat (%)	20	3.7
Salt (%)	1.7	1.0

Applications

- School Lunch Program
- Frozen Pizza/Fresh Pizza
- Lean/reduced calorie frozen meals
- Ingredient cheese for baked applications
- Food service applications (e.g. blended with higher fat cheeses to meet specific nutritional targets)

How can CDR help me?

- CDR is an internationally known dairy research center and the largest within the United States. Access to world class food scientists/technologists, and a licensed, “operating” dairy plant along with CDR’s client confidentiality commitment provides applied research results at a reasonable cost. This technology is currently available for licensing through the WI Alumni Research Foundation (WARF).

Photographs of the new CDR cheese and its performance on pizza

