



Seeking Companies interested in the Commercialization of a Modified Dairy Protein

The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the commercialization of a novel patent-pending process that improves the heat stability and acid stability of dairy proteins while reducing allergenicity. This technique offers manufacturers the opportunity to use proteins in applications where it was previously impossible due to heat and acid conditions. Additionally, this modified dairy protein can also be used as a replacement for gum Arabic, a naturally occurring protein-carbohydrate complex. If your company is interested in producing a whey protein ingredient with improved heat stability or if you would like to use this ingredient in UHT or retort products, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

Technology

- Based on the initial step in the Maillard reaction, CDR researchers have developed a novel (patent pending) technique for creating a stable covalent bond between whey protein hydrolysates and carbohydrates, which are resistant to changes in temperature, pH and ionic strength. These changes allow the protein to be used in applications that contain low pH and/or require high heat. It is important to note that this process does not lead to any browning, discoloration or off-flavors in a product. The process is simply used to modify the protein. Please note that both the protein and the carbohydrate used for this process are food grade and GRAS approved.

Functional Benefits

- This patent pending process produces superior thermal stability, color and emulsifying properties in protein fortified food applications. The modified protein protects against protein aggregation and allows the use of higher heat processing temperatures in beverages and food products.

Economic Benefits

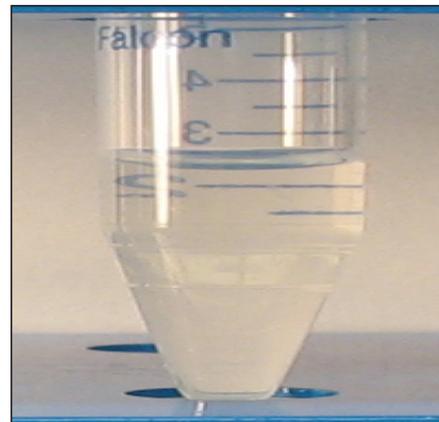
- This process allows for protein enriched applications that were not previously possible. Thanks to its heat and acid stability as well as its superior emulsifying properties, this modified protein can provide excellent functionality in many applications. Additionally, this modified protein can be considered a less expensive substitute for gum Arabic due to the fact that it is a domestically produced ingredient product.

Applications

- UHT or retort beverages, sauces or soups
- Acidified dairy protein beverages
- Gum Arabic replacement e.g. emulsifies/stabilizes flavors and beverages

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 minimal cost. This technology is currently available for licensing from Wisconsin Alumni Research Foundation (WARF). CDR will assist in this technology adoption for a nominal fee.



Purified modified protein