TECH OFFER

The Future Of Food Binders: Konjac

KEY INFORMATION

TECHNOLOGY CATEGORY:
Foods - Ingredients
Personal Care - Nutrition & Health Supplements

TECHNOLOGY READINESS LEVEL (TRL): TRL7
COUNTRY: JAPAN
ID NUMBER: TO175330

OVERVIEW

Currently flour, gelatin, butter, and sugar are commonly employed as binding agents in various culinary applications, such as nut bars, waffles, and fried food batters. However, this conventional practice raises significant concerns regarding health implications (gluten allergy, lactose intolerant) and sustainability.

This technology is a novel Konjac-based alternative to supplant conventional binding agents, which is diabetic-friendly, gluten-free and has a low calorie content. This healthy and powerful dietary binder allows the user to design various shapes and textures of foods and can be used in recipes for consumers with dietary restrictions.

TECHNOLOGY FEATURES & SPECIFICATIONS

- Able to bind and mould different ingredients together.
- Able to modify other ingredients' textures.

- Able to withstand extreme temperature from -20 ° to 121° and maintain the shape and texture of the product, which is more versatile than agar and gelatin.
- Free of preservatives, mixture needs to be stored cool or vacuum packed

POTENTIAL APPLICATIONS

- The potential applications of this Konjac-based product offer several solutions to dietary restrictions worldwide. It can replace ingredients such as sugar as a binder for diabetic or health-conscious individuals, as well as gelatin and butter to make recipes vegan-friendly.
- It is easy to integrate into the conventional food manufacturing processes, suitable for all culinary applications from large production to small kitchens.
- This product can be used by medical professionals to minimize their workload and make it possible for them to accommodate a patient's dietary restrictions without compromising the patient's health or taste.

MARKET TRENDS & OPPORTUNITIES

- The Current Market size for the Food Binders Market is about $7.41 billion USD and is projected to reach $13.12 billion USD in 2030.
- This intellectual property can be easily incorporated into any kind of operation especially the health food industry, making it easily accessible, without comprising any health implication to aid medical professionals and could influence the food substantiality market for a better outcome.

UNIQUE VALUE PROPOSITION

- Using the product will not affect the taste of the other ingredients
- More versatility in application, addressing challenges in process parameters and dietary restrictions,
- Maintain the texture and shapes for a longer time than traditional food binders