Stamulcol® FR
Goodness from Galactomannan

Stamulcol® FR is a depolymerised natural Guar gum of high purity. Guar (Cluster Bean) has been cultivated and consumed in India as a vegetable for hundreds of years. Guar Galactomannan (also known as Guar Gum) is a high molecular weight polysaccharide contained in the endosperm of Guar Seeds. It is a naturally occurring agro material and widely used the world over as an important food stabiliser. Guar Galactomannan molecule has a mannose backbone with side branching galactose units, the average ratio of mannose: galactose being 1.8-2.0: 1.0.

Due to its very high molecular weight, Guar Galactomannan yields very high viscosity in water. It also has a typical beany odour and taste and is difficult to dissolve directly in water. This prevents its direct consumption by consumers in amounts necessary to yield the health benefits of a valuable water soluble dietary fiber. Stamulcol® FR, has extremely low molecular weight and viscosity making it very easy to consume. Stamulcol® FR is water soluble, colour-free, odour-free., sugar-free and gluten-free. It can be easily consumed by mixing it in water or other hot or cold beverages or added to several foods during or after cooking. It does not change the taste or texture of the food or beverage. Thus Stamulcol® FR enables the consumption of sufficient amounts of Guar Galactomannan as a source of water soluble dietary fiber with an excellent delivery system to give consumers several health benefits.

How does it work?

Dietary fibers are the indigestible portion of plant foods that move through the digestive system, absorbing water. Dietary fiber consists of non-starch polysaccharides and several other plant components such as cellulose, dextrin, inulin, lignin, pectin, beta-glucans and oligosaccharides. Dietary fibers can be broadly classified as:

Water Insoluble Fibers
- Passive water attracting properties.
- Help to increase bulk, soften stool and shorten transit time through the intestinal tract.

Water Soluble Fibers
- Undergo metabolic processing via fermentation.
- Yield end products with broad, significant health benefits.
**Stamulcol® FR** is a water soluble dietary fiber. **Stamulcol® FR** greatly improves the production of Short Chain Fatty Acids (SFCA) in our digestive system, thus leading to various health benefits.

**Why are SFCA’s important?** SFCA’s are used by the intestinal mucosa or absorbed through the colonic wall into the portal circulation (supplying the liver) that transports them into the general circulatory system.

Bacterial fermentation of **Stamulcol® FR** in the large intestine leads to the products of SFCA’s which are organic acids (such as acetic, propionic, and butyric acid).

SCFA’s have extensive physiological actions that promote health effects, such as:

- Stabilize blood glucose levels by acting on pancreatic insulin release and liver control of glycogen breakdown.
- Suppress cholesterol synthesis by the liver and reduces blood level of LDL cholesterol and triglycerides responsible for atherosclerosis.
- Lower colonic pH (raises level of acidity in the colon) which protects the lining from formation of colonic polyps and increases absorption of dietary minerals.
- Increase proliferation of colonic bacteria beneficial for health – bifidobacteria and lactobacilli (serving a probiotic function).

The reason why we have to focus on SCFA is because they influence intestinal growth and function:

- Enhancement of mucosal blood flow of the large intestine.
- Enhancement of epithelial cell proliferation of the large intestine
- Enhancement of water, Ca and Mg absorption from the large intestine.
- Enhancement of mucus secretion from the large intestine.

**Stamulcol® FR** binds excess water and tends to add some bulk to the stool. **Stamulcol® FR** has a prebiotic effect that helps to improve the status of the micro flora in the digestive system.

**Stamulcol® FR is:**

- Tasteless, odourless, colourless, grit-free and dissolves fast and clear.
- Non-GMO, gluten free, natural, low calorie, vegan.
- True Regulating All-Natural Fiber.
- Improves both constipation and diarrhoea without excess gas, cramping or bloating.
- Promotes intestinal and colon health.
- Controls the glycemic index of foods.
- Promotes the absorption of minerals including Ca and Mg.
- Proven Prebiotic.
- Delivers healthy satiety effect.
What are the health benefits?

The relationship between a lack of dietary fiber intake and diseases is well known. To maintain good health, Health Care Professionals and their Associations such as The American Dietetic Association recommend a daily intake of 25 – 30 g of Fiber per day. However, most people have a daily Fiber intake of less than half of the daily recommended Fiber intake.

Using Stamulcol® FR as a source of Dietary Fiber to supplement your daily diet may help you in:

- Restoring and maintaining normal bowel function as clinical studies have shown that Stamulcol® FR works well against constipation as well as diarrhoea.
- Restoring and maintaining a healthy balance in gut microflora.
- Enabling healthy cholesterol and triglyceride levels.
- Controlling post-prandial glucose levels.
- Imparting a feeling of satiety thereby possibly aiding weight management.

How often should I take Stamulcol® FR?

Stamulcol® FR should be used as a daily source of water soluble dietary fiber supplement. Children up to 11 years should take up to 6 g of Stamulcol® FR per day and above 12 years and adults between 6 to 12 g per day. Stamulcol® FR has also proved helpful in controlling severe diarrhoea in young children when used along with rehydration therapy, in persons suffering from Irritable Bowel Syndrome, frequent constipation and irregular bowel movements.

When and how should I take Stamulcol® FR?

Stamulcol® FR can be taken at any time during the day, as per your convenience - during breakfast, lunch, dinner or in between meals. Try to regularise the intake of Stamulcol® FR at approximately the same time every day. Stamulcol® FR can be mixed in water, hot or cold beverages, curries, roti atta, dahi / yogurt, sprinkled on rice etc. It will not change the taste or texture of your food or beverage. Stamulcol® FR’s unique delivery system gives you the choice of consuming Stamulcol® FR in a manner and time convenient to you.

Is it safe?

Stamulcol® FR is made from a naturally occurring agricultural raw material – Guar. Guar has a long history of being widely consumed in India as a vegetable. Guar Galactomannan is used world-wide as a food additive in ice creams, yogurts, sauces, dressings, beverages etc. Stamulcol® FR is also used in many countries in various foods to fortify the foods with fiber and make them healthier. It is also used in several medical nutrition diets, special diet foods and health supplements.
Stamulcol® FR has a GRAS status (Generally Recognised as Safe). Studies have shown that Stamulcol® FR is safe and has virtually no harmful side effects. No preservatives are used or added during manufacturing. Stamulcol® FR meets the accepted criteria for a “natural food ingredient”. Also, Stamulcol® FR is not of any animal origin or derivative and is made from Non-GMO materials. Stamulcol® FR is manufactured in a plant that employs very high levels of food safety, GMP’s (Good Manufacturing Practices) and is ISO 9001, FSSC 22000 (GFSI Compliant), OHSAS, 14001, SA 8000, Sedex Smeta IV Pillar, Kosher and Halal certified.

<table>
<thead>
<tr>
<th>Nutritional Value</th>
<th>100 g</th>
<th>Recommended serve size 6 g (= 1 tablespoon)</th>
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<tbody>
<tr>
<td>Energy</td>
<td>400 kcal (1670 kJ)</td>
<td>12 kcal (50 kJ)</td>
</tr>
<tr>
<td>Protein</td>
<td>&lt; 0.7 g</td>
<td>&lt; 0.04 g</td>
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<tr>
<td>Total Carbohydrates</td>
<td>94 g</td>
<td>5.7 g</td>
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<tr>
<td>- Dietary Fiber</td>
<td>82 g (approx)</td>
<td>5 g (approx)</td>
</tr>
<tr>
<td>- Sugars</td>
<td>0 g</td>
<td>0 g</td>
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<tr>
<td>Fat</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Potassium</td>
<td>250 mg</td>
<td>15 mg</td>
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<tr>
<td>Sodium</td>
<td>120 mg</td>
<td>7.2 mg</td>
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**Ingredients:**

Dietary Fiber: Depolymerised Guar Gum 100%

**Packing**
This product is available in 20 kgs net for FR-R and 10 kgs net for FR-A grades, open mouth HDPE woven laminated paper bag with a suitable liner as a moisture barrier.

**Storage**
Store product in a dry and cool place, away from heat and out of the sun. Once package is opened, consume within reasonable time. Store opened and unused packages after adequate re-sealing to avoid contamination and moisture ingress. Shelf life is 24 months from date of manufacture.

**Safety, Health, Environment and Handling**
See Material Safety Data Sheet.