

## **β-GLUCAN (Barley; Low Viscosity)**

08/23

P-BGBL

CAS: 9041-22-9 Source: Barley Flour

**STRUCTURE:** 

GIC
$$\beta$$
1-4GIC $\beta$ 1-4GIC $\beta$ 1-3-GIC $\beta$ 1-4

P-BGBL to P-MWBGS

Schematic representation of barley  $\beta$ -D-Glucan subunit (n = 2 or 3;  $\sim$  90% of glucan structure).

Refer to the product lot number Certificate of Analysis for lot specific properties.

**PROPERTIES:** 

Molecular Weight: 179 Kd (MAALS)

**Physical Description:** White, odourless powder

## STORAGE CONDITIONS:

Store dry at room temperature in a well-sealed container. Under these conditions, the product is stable for several years.

## METHOD OF DISSOLUTION (for 1.0% w/v solution)

Accurately weigh 1.0 g of  $\beta$ -glucan into a 120 mL dry pyrex beaker. Add 5 mL of 95% ethanol to wet the sample. Add a magnetic stirrer bar followed by 90 mL of distilled water while stirring the slurry on a hot-plate magnetic stirrer. Adjust the heat setting to 120°C and stir vigorously. Cover the beaker loosely with aluminium foil and continue stirring vigorously. Turn the heat off when the solution begins to boil, but continue stirring the solution until the  $\beta$ -glucan completely dissolves (approx. 10 min). Adjust the volume of the solution to 100 mL (this solution may be very slightly turbid due to the presence of trace amounts of protein).

 $\beta$ -Glucan solutions can be stored at room temperature for several weeks in a well-sealed storage bottle. Prevent microbial contamination by adding a few drops of toluene to the storage bottle. If the  $\beta$ -glucan begins to self-associate and precipitate from solution or gel, then loosen the bottle cap and heat the solution to 90-95°C in a boiling water bath for a few minutes. Tighten the cap and shake the contents vigorously. Add a few drops of toluene.