



KONJAC GLUCOMANNAN (LOW VISCOSITY)(50601)

11/99

SUGAR COMPOSITION:

Mannose : 60%
Glucose : 40%
Galactose, arabinose and xylose : undetectable

The polymer also contains acetyl groups which impart solubility. If these groups are removed by the addition of sodium hydroxide (about 1% w/v), the polymer becomes insoluble in solutions of neutral pH.

VISCOSITY: 8.6 cSt [1% w/v, 30°C, in distilled water using an Ubbelohde suspended level viscometer (Type C)].

PROTEIN CONTENT: < 0.3% (Nitrogen x 5.7)

PHYSICAL DESCRIPTION: Odourless, white powder.

METHOD OF DISSOLUTION:

Glucomanan (1 gram) is accurately weighed into a 120 ml dry pyrex beaker. The sample is wet with 6 ml of 95% ethanol. A magnetic stirrer bar is added followed by 90 ml of distilled water. The slurry is immediately placed on a magnetic stirrer-hotplate and heated and stirred until the solution boils. The beaker is loosely covered with aluminium foil. When the solution begins to boil, the beaker is transferred to a second magnetic stirrer, and stirred at room temperature until the polymer completely dissolves (about 20 min). The volume is adjusted to 100 ml.

The solution may be very slightly turbid due to the presence of trace amounts of protein. A clear solution is obtained by centrifuging the solution at 12,000 *g* for 10 min.

Glucomanan solutions can be stored at room temperature for several weeks in a well sealed storage bottle. Microbial contamination is prevented by adding a few drops of toluene to the storage bottle.