

GOS Application Sheet



Milk & Milkshakes with Promovita® Galacto-oligosaccharides (GOS)

- Promovita® GOS can be used to produce a gut healthy semi - skimmed milk drink*. The prebiotic effect can help to increase the activity of healthy bacteria in the gut leading to a general feeling of wellness.
- Promovita® GOS can be utilised to increase fibres, replace sugars and fats, thus lower product calories.
- Prebiotic GOS syrup also has the potential to increase bioavailability of essential minerals, such as calcium, magnesium and iron.
- Mildly sweet, pleasant taste; relative sweetness of Promovita® GOS to sucrose is 0.4.



Application: semi-skimmed milk drink with Promovita® GOS

Formulation delivers:

- 20 % reduced calories, 21% reduced sugar**
- 5.4 g prebiotics, 2.9 g total fibre claim.

Formulation

Semi-Skimmed Milk	90.79 %
Promovita® GOS.....	3.8 %
Sucrose.....	5.2 %
Distilled Monoglycerides.....	0.2 %
Carrageenan.....	0.01 %
<i>Colours & Flavours as required</i>	
Total	100.0 %

Flavours, additions, regulators as required

Procedure

- Preheat milk to 60°C
- Add emulsifiers to the warmed milk
- Add Promovita® GOS to the warmed milk under agitation
- Preheat mixture to 75°C
- Homogenize at 250 bars in 2 stages (200/50)
- Sterilize at 142°C and hold for 5 seconds.
- Cool to 20°C
- Pack aseptically

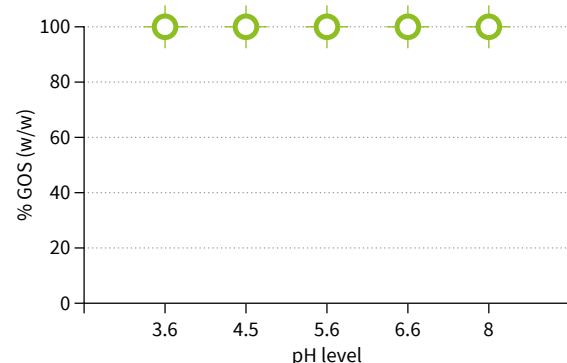
**Comparing to standard recipe (where sucrose substitutes GOS)

Promovita® GOS Properties

- Gram for gram 40 % less calories than sucrose.
- Binding/bulking agent – Provides texture and mouthfeel.
- High heat and acid stability of Promovita® GOS provides a major processing benefit over other prebiotic fibres.

GOS levels at 120 minutes at 121°C

Figure 1: Heat and stability of Promovita® GOS



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