

## Product Description

**MacroGard® HP9** feed material / feed ingredient is a pure natural product derived from baker's yeast *Saccharomyces cerevisiae*.

**MacroGard® HP9** feed material / feed ingredient is processed by highly advanced and patented techniques and has undergone necessary purification – giving a high yield of bio-active carbohydrates for the inclusion in feeds and premixes. The product is free from material of animal source.

**MacroGard® HP9** is not "Genetically Modified Organism" (GMO free).

## Physical-Chemical Characteristics

*Glucan g/100g .....	Min. 55.0
*Protein (N X 6,25) g/100g.....	Min. 9.0
*Moisture (total) g/100g .....	Max. 10.0
*Ash (total) g/100g .....	Max. 12.0
*pH (2% solution) .....	6.0 - 7.5
Particle size distribution	
average .....	30 µm
<20 µm .....	32%
20 - 50 µm .....	57%
50 - 100 µm .....	12%
100 - 200 µm .....	0,5%
>200 µm .....	0%
Water binding capacity .....	9.5
Water solubility index .....	10.3

## Heavy Metals

Lead ppm.....	< 5.0
Arsenic ppm.....	< 2.0
Mercury ppm.....	< 0.1
Cadmium ppm.....	<1.0

## Microbiological Characteristics\*

Aerobic plate count CFU/g .....	≤ 5000
Total Coliforms MPN / g .....	≤ 10
Thermotolerant Coliforms MPN / g .....	Absent
Yeast / Mould CFU / g .....	≤ 100
<i>E. coli</i> MPN / g .....	Absent
<i>Salmonella</i> / 375 g .....	Absent
Coagulase-positive <i>Staphylococcus per/5g</i> .....	Absent
<i>Enterobacteriaceae</i> CFU/g .....	≤ 300
Sulphite reducing <i>clostridia</i> CFU/g .....	≤ 100
<i>Bacillus cereus</i> CFU/g .....	≤ 100

## Packaging

Either 25 kg paper box with inner polyethylene bag, multi walled paper bags with polyethylene liner or big bags.

## Storage

Store under cool, dry and pest free conditions. Store away from chemicals and strong odor is recommended.

## Shelf Life

24 months from manufacture date.

## Certifications

ISO 9001:9008 - Certified Quality Management System, HACCP, GMP+B2 and ISO 22000 - Food Safety implemented.

The figures on this product data sheet have indicative purposes only. \*Monitored Parameters. Regulations can vary between countries. Always consult the local requirements.

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