

# Product specification

## Benicaros<sup>®</sup> SF P

### GENERAL DESCRIPTION

Benicaros<sup>®</sup> SF P is an enzymatic extract of carrot pomace for carrot rhamnogalacturonan-I domains (cRG-I). Benicaros<sup>®</sup> SF P is derived from upcycled carrot pomace, a side stream of carrot juice production. Benicaros<sup>®</sup> SF P is available as Kosher and Halal.

### PHYSICAL AND CHEMICAL PROPERTIES

Appearance and texture	Free flowing powder
Color	Off white to light orange (product color may vary from batch to batch)
Odor/taste	Mildly acidic
Solubility	Water soluble

### COMPOSITION

	Method	Limit
Moisture	103°C, 3h (vacuum)	≤ 7% w/w
Total dietary fiber content*	AOAC 2017.16	~20 % w/w
Maltodextrin	According to SOP	25-35% w/w
Protein content	Kjeldahl, f=6.25	≤ 7% w/w
Total ash content	500-550°C	≤ 9% w/w
Fat content	Soxhlet	≤ 2% w/w
cRG-I content	Calculated**	25 ± 5% w/w

\*Based on limited number of data

\*\*The expression of cRG-I content is the sum of bound characteristic monosaccharides of the cRG-I region

## MICROBIOLOGICAL CRITERIA

	Method	Limit
Total plate count	ISO 4833-1	< 10.000 cfu/g
Yeast & molds	ISO 21527	< 1000 cfu/g
Bacillus cereus	ISO 7932	< 100 cfu/g
Enterobacteriaceae	ISO 21528-2	< 1000 cfu/g
Escherichia coli	ISO 16649-2	< 10 cfu/g
Salmonella spp.	ISO 6579-1	Not detected in 25 g
Listeria monocytogenes	ISO 11290-1	Not detected in 25 g

## CONTAMINANTS

	Method	Limit
Lead	NEN-EN 13805: 2014 ICP-MS	< 1.0 mg/kg
Cadmium	NEN-EN 13805: 2014 ICP-MS	< 1.0 mg/kg
Arsenic	NEN-EN 13805: 2014 ICP-MS	< 0.1 mg/kg
Mercury	NEN-EN 13805: 2014 ICP-MS	< 100 µg/kg
Perchlorate	NEN-EN 13805: 2014 LC-MS/MS	< 0.05 mg/kg
Residual pesticides	LC/MSMS GC-MSMS	EU regulation 396/2005 US regulation CFR title 40 part 180

## SHELF LIFE AND STORAGE CONDITIONS

The shelf life of Benicaros® SF P is 4 years after production date.

Storage conditions to ensure the given shelf life are indoors in the original, unopened and undamaged production packaging in a dry place at ambient conditions. Avoid exposure to direct sunlight.

## APPLICABILITY

Wide choice of food products or food supplements with a daily use level of 850 mg/day based on the recommended cRG-I content.

Product is hygroscopic. To maintain the quality properties the material should be used immediately upon opening the packaging and be handled in a dry environment (RH<50%) under suitable processing conditions.

## APPROVED BY

Food safety team on May 14 2024.