

ANALYSIS CERTIFICATE

COLLAGEN - PERFORMANT: ZERO BLOOM - Kg 3690 - Lot N° 181710

COLLAGEN TYPE 1 FOUR HUMAN CONSUMPTION

Product date: 20/10/2018 - BBE: 20/10/2023

Criteria	Specifications	Results	Test Methods
Origin	Calf Skin	Calf Skin	-
Granulation	50 Mesh	98% pass	ASTM Sieves
Protein content (on dry basis)	>91 %	95,1%	Kjeldhal
Viscosity 10%	1,5 - 2,5 mPa.s	1,99 mPa.s	GME
pH	5 - 7	6,02	GME
Clarity		4 NTU	Nephelometry (6,67%)
SO ₂	< 10 ppm	3 ppm	GME
Peroxides	0 ppm	0 ppm	GME
Moisture	< 7 %	6,12 %	GME USP
Ash	< 2 %	1,22 %	GME
AS*	<0,2 ppm	Conforms	ICP-MS
Hg*	<0,1 ppm	Conforms	ICP-MS
Pb*	<1 ppm	Conforms	ICP-MS
Cd*	<0,1 ppm	Conforms	ICP-MS
Cr*	<2 ppm	Conforms	ICP-MS
Fe*	<30 ppm	Conforms	ICP-MS
Zn*	<5 ppm	Conforms	ICP-MS
Cu*	<5 ppm	Conforms	ICP-MS
Average molecular weight	1500 Da - 2500 Da	2000 Dalton	SEC
Total bacteria count	<1000 cfu/g	Conforms	GME
E.coli	Absent	Absent	GME
Clostridium sulphite-reducing	Absent	Absent	GME/ISO 15213:2003
Yeast & Moulds	<100 cfu/g	Conforms	Sabouraud-glucose agar
Coliforms*	Absent	Absent	ISO 4832:2006
Salmonella**	Absent	Absent	GMEISO 6579:2017

* Maximum values obtained from regular analysis made during the last 24 months.

** Result obtained from analysis of one day finished product average sample

Parameters that are not expressly mentioned in this certificate of analysis comply with the specifications on the product data sheet.