

Product: COLLAMIN
Natur'Active Collagen
Lot Nr.: 898911-4
Net weight: 8'595 kg

Packaging: 310 g HD-PE containers
Production date: September / 2017
Expiry date: September / 2022

Certificate of Analysis

Physical and chemical properties	Specifications	Analysis methods references	Analysis results
Typical average Molecular Weight (Mw)	2000 Da	COLLASWISS	2020 Da
Protein Content	≥ 92 %	COLLASWISS	92.4 %
Viscosity (20% at 25°C)	2.2 - 3.7 mPa.s	GME*	3.3
pH value	5.0 - 6.4	GME*	5.8
Color	≤ 1.5	COLLASWISS	0.9
Clarity	≤ 12	COLLASWISS	11
Isoelectric point	7.0 - 9.0	COLLASWISS	8.6
Loss on drying	≤ 8.0 %	GME*	7.5 %
Bulk density	0.25 - 0.35 g/cm ³	COLLASWISS	0.33
Conductivity	≤ 1.0 mS/cm	EP 4.5	0.46 mS/cm
Solubility	Cold water soluble	COLLASWISS	48 seconds

Organoleptical properties (reconstititional solution)	Specifications	Analysis methods references	Analysis results
Odor	< 2	COLLASWISS	1-2
Taste	< 2	COLLASWISS	1

Residue limits	Specifications	Analysis methods references	
Ash content	≤ 1.5 %	COLLASWISS	0.20 %
Heavy Metals	≤ 50 ppm	USP	1 ppm
Arsenic	≤ 0.3 ppm	GME*	absent
Cadmium	≤ 0.5 ppm	GME*	absent
Chromium	≤ 2 ppm	GME*	absent
Copper	≤ 5 ppm	GME*	absent
Mercury	≤ 0.1 ppm	GME*	absent
Lead	≤ 1.0 ppm	GME*	absent
Zinc	≤ 50 ppm	GME*	absent
Sulphur dioxide (SO ₂)	≤ 10 ppm	GME*	4 ppm
Peroxide (as H ₂ O ₂)	≤ 10 ppm	COLLASWISS	2 ppm
Fat	absent	COLLASWISS	absent

Microbiological Properties	Specifications	Analysis methods references	
Total aerobic count	≤ 1000 CFU/g	GME*	<10
Yeast and moulds	absence in 1 g	GME*	absent
E. coli	absence in 10g	GME*	absent
Anaerobic sulfite-reducing sp.	≤ 10 CFU/g	GME*	absent
Salmonella	absence in 25g	GME*	absent
Staphylococcus aureus	absence in 1g	GME*	absent

GME* = Gelatine Manufacturers Europe (Organization)

Lyss, September 10. 2016, Head of Quality Control:

BIOGEL AG

Gewerbering 6, CH-6105 Schachen
Veterinary Control Nr.: CH-GL-1 / ISO 9001:2015 / ISO 22000:2005 / SWISSMEDIC CERTIFICATE OF GMP COMPLIANCE