

# CERTIFICATE OF ANALYSIS

The capsules are produced under carefully controlled conditions. Controls are performed continuously throughout the process and guarantee that capsules conform to the highest quality standards. The capsules described below conform to the specifications as defined in the current edition of the Capsugel "Technical Reference File" for empty hard gelatin capsules.

<b>PRODUCT DESCRIPTION</b>		Empty Hard Gelatin Capsules (Bovine and/or Porcine Origin)	
Customer:	GALA TRADE REPRESENTATIONS LTD.	Lot Number:	34647851
Product Name:	HGC SIZE 00 - WHITE	Customer Reference:	GTR/641/2017/2
Product Code:	003306.15	Product Size:	00
Manufacturing Date:	12-Apr-2017	Type:	CONI-SNAP
Expiration Date:	Apr 2022		
<b>BODY</b>		<b>CAP</b>	
Code:	44.000	Code:	44.000
Name:	WHITE OP.	Name:	WHITE OP.

<b>Body Composition</b>		<b>Cap Composition</b>	
Titanium dioxide	2.0000 %	Titanium dioxide	2.0000 %
GELATIN	qsp 100 %	GELATIN	qsp 100 %

Due to the nature of raw materials, their sourcing, and technology improvements, the color composition data indicated are target values and actual values may vary to insure the consistency of lot color. Capsugel supports the expiry date if recommendations for warehousing and transportation are observed (recommended : 15°C - 25°C and 35% - 65% relative humidity)

<b>Ingredient / Reference</b>	<b>E Nr</b>	<b>C.I. Nr</b>	<b>Function</b>	<b>Regulatory References</b>
Titanium dioxide	E171	77891	Opacifier	(EU) 231/2012, 21 CFR, EP, JP, USP/NF
GELATIN			Structure	EP, JP, USP/NF

## ANALYTICAL DATA

<b>Characteristics</b>	<b>Test Method</b>	<b>Units</b>	<b>Specifications</b>	<b>Results</b>
Identification of gelatin	CP010		Positive	pass *
Identification of TiO2	CP011		Conforms to composition	pass *
Sulphated ash	CP015	%	Less than 7	pass *
Lubricant content	CP019	%	Less than 0.5	0.04 *
Sulphur dioxide	CP020	ppm	Less than 50	2 *
Disintegration time	CP001	min/sec	Less than 15:00	02:20 *
Loss on drying	CP014	%	13.0 to 16.0	13.6
Average weight	CP003	mg	111 to 125	118.5
Total Aerobic Microbial Count	CP031	cfu / g	Less than 1000	< 10
Escherichia coli	CP033		Absence in 1 gram	pass *
Salmonella	CP034		Absence in 10 gram	pass *
Staphylococcus aureus	CP035		Absence in 1 gram	pass *
Pseudomonas aeruginosa	CP036		Absence in 1 gram	pass *
Total Yeasts/Moulds Count	CP032	cfu / g	Less than 100	< 10 *

### \* **Reduced frequency testing**

## Elemental Impurities / Heavy Metals

With reference to ICH Q3D and other applicable standards controlling levels of elemental impurities in drug products and food supplements, Capsugel empty capsule products are meeting below levels of applicable elements. Monitoring testing is in place under validated methods, as described in the current edition of Capsugel's applicable Technical Reference File. A documented risk assessment based on the ICH Q3D principles is available on [www.mycapsugel.com](http://www.mycapsugel.com).

<b>Element</b>	<b>Unit</b>	<b>Acceptance Level</b>
Arsenic	ppm	Not more than 1
Lead	ppm	Not more than 1
Cadmium	ppm	Not more than 0.5
Mercury	ppm	Not more than 0.1
Cobalt	ppm	Not more than 5
Vanadium	ppm	Not more than 10
Nickel	ppm	Not more than 20
Chromium	ppm	Not more than 2

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Lot Nr: 34647851

**Residual Solvent Statement**

In accordance with ICH Q3C residual solvent guideline, Class 3 solvents may be used according to good manufacturing practices such that their cumulative value does not exceed 5000ppm or 0.5%, under option 1 as defined in ICH Q3C, USP<467>, and EP General Text 5.4.

**Physical Characteristics**

This product conforms to established A.Q.L.'s for Physical Attributes.

Appearance - Clean empty capsules, meeting the specified requirements of color and size.

Odor - Free of disagreeable odor.

The reported disintegration time is subjective, and is provided to indicate Pass/Fail status for 15 minutes.

Empty hard gelatin capsules conform with the Japanese Pharmacopoeia monograph for capsules.

**TSE/BSE Regulations**

Capsugel can use blends of several pharmaceutical gelatins. When bovine gelatin is used by Capsugel, it is in full compliance with all pharmaceutical regulatory statutes.

Specifically, Capsugel fully complies with the following where applicable:

- Commission Directive 2003/63/EC/ Note for guidance EMA/410/01 compliance demonstrated by "Certificate of Suitability".
- Regulation (EC) No 853/2004 on specific hygiene rules for food of animal origin.
- Regulation (EC) No 999/2001 as regards specified risk material.
- United States FDA - 21 CFR Parts 211, 226, 300, 500, 530, 600, 895, and 1271 related to Use of Materials Derived from Cattle in Medical Products.
- United States FDA - 21 CFR Parts 189 and 700 related to Use of Materials Derived From Cattle in Human Food and Cosmetics.
- Japanese Ministry of Health, Labor Welfare (MHLW) - "Food Sanitation Law", MHLW Notice No.0327-2 of March 27, 2015.
- Japanese Ministry of Health, Labor and Welfare - Notification No. 210, Notification No. 1002-27 as of November 25th 2014.
- The raw material is derived from healthy animals slaughtered in a slaughterhouse, which have been inspected by an official veterinarian and have been deemed fit for human consumption.

Capsugel currently manufactures capsules under any (or all) of the following Certificates of Suitability:

- Rousselot R1 CEP 2000-027
- Rousselot R1 CEP 2000-029
- Rousselot R1 CEP 2001-332
- PB Gelatins R1 CEP 2000-045
- PB Gelatins R1 CEP 2002-110
- Gelita group R1 CEP 2001-424
- Gelita group R1 CEP 2003-172
- Sterling Gelatin R1-CEP 2001-211
- Nitta Gelatin R1-CEP 2000-344
- Nitta Gelatin R1 CEP 2005-217
- Nitta Gelatin R1 CEP 2004-247
- Nitta Gelatin R1 CEP 2004-320

**Manufacturing Processes:**

No Addition of Preservatives

No Ethylene Oxide Treatment

No Irradiation Treatment