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CERTIFICATE OF ANALYSIS

This is to certify that the information below has been approved by QA as conforming to Qualicaps Europe specifications, as described in the current technical manual and applicable regulatory requirements

CUSTOMER :	COUNTRY : SPAIN
ITEM DESCRIPTION : 2DRBAJA	SIZE : 2
CUSTOMER ITEM : E00900F	CUSTOMER ORDER : 4900008558
LOT NUMBER : E1303069	NAME :
LOT QUANTITY APPROVED : 1750000	APPROVAL DATE : 20/05/2013
PRINTING : NOT APPLICABLE	MANUFACTURING DATE: 14/05/2013
INK COLOR : NOT APPLICABLE	EXPIRY DATE: 5 YEARS

GELATIN: Complies with the requirements of current EP and USP/NF editions.

It is of pure bovine origin, complies with revision in force of European Guideline EMEA/410/01. Each supplier has a Ph. Eur certificate of suitability for their product (R1-CEP-2000-027-Rev.02, R1-CEP-2000-029-Rev.04, R1-CEP-2002-110-Rev.00, R1-CEP-2001-211-Rev.01) and has confirmed that it is manufactured from raw material not imported from UK, Ireland and Portugal.

COLORANTS: Comply with the EC directives 2009/35 & 231/2012 and where applicable with the requirements of the EP and USP/NF.

PRINTING INKS: Comply with pharmaceutical regulations.

FINISHED PRODUCT TESTS

CAPSULES : Do not contain preservatives and have not been treated with Ethylene Oxide. They comply with The European Agency for the Evaluation of Medicinal Products (EMA) guideline CPMP/ICH/283/95 and the European Pharmacopoeia for residual solvents.

DISINTEGRATION: Less than 15 minutes by the Ph. Eur. test and have a rupture time of less than 5 minutes by the USA Federal Specification 285A Acid Solubility Test.

PARAMETERS	LIMITS	REFERENCE	RESULT
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MICROBIOLOGICAL AND CHEMICAL TEST

Total Aerobic Microbial Count (TAMC).....	10 ³ CFU/G.....	EP/USP	27 (Average)
Salmonella	Negative / 10 G	EP/USP	Meets test
E. Coli	Negative / 1 G	EP/USP	Meets test
S. Aureus	Negative / 1 G	EP/USP	Meets test
Ps. Aeruginosa.....	Negative / 1 G	EP/USP	Meets test

DIMENSIONAL AND PHYSICAL TEST

DIAMETER	CAP (mm)	Meets spec	TM*	6,37	-	6,36	(max-min)
	BODY (mm).....	Meets spec	TM*	6,10	-	6,08	(max-min)
LENGTH	CAP (mm)	Meets spec	TM*	9,2	-	8,9	(max-min)
	BODY (mm).....	Meets spec	TM*	15,6	-	15,1	(max-min)
END THICKNESS	CAP (micr).....	Meets spec	QS*	177	-	116	(max-min)
	BODY (micr).....	Meets spec	QS*	182	-	111	(max-min)
WEIGHT (MG)		Meets spec	TM*	65	(Average)		
MOISTURE (%)		Meets spec	TM*	15,3	(Average)		

*TM = Qualicaps Technical Manual

*QS = Qualicaps internal specification

"Meets test" means conforms to specification



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CAPSULE COLOR FORMULATION SHEET

The design weight of a size 2 capsules is 63 mg, the cap representing 40% and the body 60% of the capsule weight. The mean capsule weight of 100 capsules can vary within the range of 58- 68 mg.

CAP:

CODE	TITLE	GM OF DYE PER 100 GM CAPSULE	
DRB	OPAQUE YELLOW 5	QUINOLINE YELLOW	1,490
		TITANIUM DIOXIDE	2,300
		Water (14,5%) target moisture	
		Gelatin	

In the cap (40%)	25,2mg Corresponds to:	0,375	QUINOLINE YELLOW
		0,579	TITANIUM DIOXIDE
		3,654	Water (14,5%) target moisture
		20,590	Gelatin

BODY:

CODE	TITLE	GM OF DYE PER 100 GM CAPSULE	
AJA	OPAQUE WHITE	TITANIUM DIOXIDE	2,000
		Water (14,5%) target moisture	
		Gelatin	

In the body (60%)	37,8mg Corresponds to:	0,756	TITANIUM DIOXIDE
		5,481	Water (14,5%) target moisture
		31,563	Gelatin

COLORANT	C.I. NUMBER	E.E.C. NUMBER
QUINOLINE YELLOW	47005	E104
TITANIUM DIOXIDE	77891	E171

VISUAL AND PRINT QUALITY

All the capsules are controlled statistically to ensure conformance to specifications. These values are derived from the MIL-STD.105E. The quality specifications are as follow :

VISUAL DEFECTS	Major A	Major B	Minor
AQL (%)	0,010	0,040	0,25
PRINTING DEFECTS	Major A	Major B	Minor
AQL (%)	0,010	0,040	1,0

