

CERTIFICATE

for

ICH-Guideline Q7A

(GMP for Active Pharmaceutical Ingredients)

By means of periodical audits it is assured, that the inspection process assures the product/service conformity including all requirements therefor. This certificate does not acquit the company of its responsibility for the compliance with all legal requirements and service properties.



AQUANOVA AG Birkenweg 8-10 64295 Darmstadt/Germany

scope:

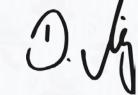
Research & development, production as well as distribution of liquid, fat and water soluble solubilisates with micelle structure for the further processing in food, dietary supplement, animal feed, cosmetics, skin care products, pharmaceuticals and culture medium to optimize the physiological and technological impact.

Certificate registration No. **70 900 1687**

Certificate valid from 2015-04-13 to 2018-04-12

Audit report No. 4287 7615





Darmstadt, 2015-04-13 Certification body of TÜV Hessen – Head of Certification body –

PAGE 1 OF 1.

This certification was conducted in accordance with the TÜV PROFICERT-plus auditing and certification procedures and is subject to regular surveillance audits. Verifiable under www.tuev-club.de. Original certificates contain a glued on hologram. TÜV Technische Überwachung Hessen GmbH, Rüdesheimer Str. 119, D-64285 Darmstadt, Tel. +49 6151/600331 Rev-GB-1301



Certificate Of Analysis SELECT LINE



Product CodeHerasons Curcum (puls)Product CodeHB44190Specification Version5Specification Date04-Apr-16Batch NumberL337.16.PP.01.01Production Date15-November-2016Explry Date14-November-2018ParameterSpecificationProduct InformationConcentrate of micelle solubilized Curcuma extractProduct descriptionConcentrate of micelle solubilized Curcuma extractIngredientsEmulsifier: Polysorbate 80 (E433) Natural Curcum oersionPhysical CharacteristicsConform solubilisate) Yellow/orange/red viscous liquid (pure solubilisate) Yellow/orange clear solution (solubilisate Conform solubilisate) Yellow/orange clear solution (solubilisate Conform solubilisate)Conform solubilisateDescriptionYellow/orange clear solution (solubilisate conform diluted in water 1:500)1.090 g/mlDensity1.05 - 1.15 g/m (20°C)1.090 g/mlTurbidityMax. 50 FNU (solubilisate dilute in water 1 1 FNU : 500)5.37 % micellesPH5 - 8 (solubilisate dilute in water 1 : 500)6.63Heavy metalsHax. 3 ppm* Max. 1 ppm* * Periodical testing< 3 ppmMarcury (Ha)Max. 1 ppm* * Periodical testing< 1.000 cfu/g * Periodical testingMine CASMax. 1 ppm* * Periodical testing< 1.000 cfu/g * Periodical testingMine DateMax. 1 ppm* * Periodical testing< 1.000 cfu/g * Periodical testingDiscoperionMax. 1 ppm* * Periodical testing< 1.000 cfu/g * Period	Product Name	Novasol® Curcumin (bulk)		
Specification Version5Specification Date04-Apr-16Batch NumberL337.16.PP.01.01Production Date15-November-2016Expiry Date14-November-2018ParameterSpecificationResultProduct InformationConcentrate of micelle solubilized Curcuma extractIngredientsEmulsifier: Polysorbate 80 (E433) Natural Curcuma oleoresinPhysical CharacteristicsConformDescriptionYellow/orange/red viscous liquid (pure solubilisate) Yellow/orange clear solution (solubilisate itoute in water 1:500)ConformDensity1.05 - 1.15 g/ml (20°C)1.090 g/mlTurbidityMax. 50 FNU (solubilisate dilute in water 15.37 % micellesPH5 - 8 (solubilisate dilute in water 1:500)6.63Heavy metalsImin. 4,75 - 5.5% Curcumin - included in micelles5.37 % micellesPH5 - 8 (solubilisate dilute in water 1:500)6.63Heavy metalsLead (Pb)Max. 3 prm*< 3 prm				
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Storage Information Storage conditions Cool & dark (<25°C) in well-closed original packaging		-		
Storage conditions Cool & dark (<25°C) in well-closed original packaging	Coliform	Absent/g	Absent	
	-			
Shelf life 24 months (in unopened container)	-			
	Shelf life	24 months (in unopened container)		

Frutarom Global Policy: This product is not irradiated and is non-GMO according to EC 1829/2003 and 1830/2003. This product is BSE/TSE free. Radioactivity (Cs134 + Cs137)<370 Bq/kg [Scintillation].



This is an accurate representation of the manufacturer's analysis but does not release the buyer from control upon receipt.

Electronically generated document. Valid without signature.



Frutarom Belgium N.V. Ambachtsstraat 6, B-1840 Londerzeel, Tel: +32 52 319 534, QualityBelgium@be.frutarom.com, www.frutarom.com

01103M84817



Certificate Of Analysis SELECT LINE



Product Name	Novasol® Curcumin (bulk)		
Product Code	HB44190		
Specification Version	5		
Specification Date	04-Apr-16		
Batch Number	L337.16.PP.01.01		
Production Date	15-November-2016		
Expiry Date	14-November-2018		
Parameter	Specification	Result	

Product Status and Suitability

Halal certified by Halal Control (EU) C-197-9001-340-03 (valid untill 08-2016) Note: The solubilisate is water and fat soluble During mixing, the solubilisate must be stirred into the water/oil and not vice/versa

Frutarom Global Policy: This product is not irradiated and is non-GMO according to EC 1829/2003 and 1830/2003. This product is BSE/TSE free. Radioactivity (Cs134 + Cs137)<370 Bq/kg [Scintillation].



This product has been carefully selected and imported for you by Frutarom Belgium NV.

This is an accurate representation of the manufacturer's analysis but does not release the buyer from control upon receipt.

Electronically generated document. Valid without signature.



Frutarom Belgium N.V. Ambachtsstraat 6, B-1840 Londerzeel, Tel: +32 52 319 534, QualityBelgium@be.frutarom.com, www.frutarom.com

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CERTIFICATE

Page 1 of 1 / Cert.-No.: C-197-9001-340-04 /3U



Office (Germany): HALAL CONTROL, D-65428 Ruesselsheim, Stahlstr. 44, Tel.: +49 6142 301987-0, Fax.: -29, http://www.halalcontrol.eu, e-mail: info@halalcontrol.eu

حلال كنترول HALAL CONTROL شركة لمراقبة وترخيص الحلال (Germany) Inspection- and Certification Body hereby certifies, that the products: تشهد الشركة بأن المنتجات أدناه

> Pos PID Product 001 EW0124/5, NovaSOL® Curcumin

WFC/CCM6/5, HB44190.

manufactured by المصنعة في AQUANOVA AG

في (Germany) at the production site Birkenweg 8-10, D-64295 Darmstadt

are Halal. تحقق معايير الحلال

THIS CERTIFICATE IS VALID FOR AND LIMITED TO PRODUCTS BEARING THE HALAL LOGO OF HALAL CONTROL ON ITS PACKAGING.

A Halal control procedure, documented in an audit report, has verified that the above listed products are complying with the Halal requirements in accordance with the Islamic Law. Technical notice: The verification and certification have been undertaken in full compliance with guidelines CAC/GL 24-1997 and respectively MS1500:2009. The products and the production system

are under supervision of HALAL CONTROL. إن نظام مراقبة الحلال والموثق في تقرير المعاينة قد أثبت أن المنتجات المذكورة أعلاه تحقق معايير الحلال الشرعية. ملاحظة تقنية: إن عملية الفحص والترخيص تمت بمراعاة تامة لمعايير 1997-CAC/GL وكذلك 2009:008. وتقوم شركة حلال كنترول بمراقبة عملية التصنيع والمنتجات.

This certificate is valid until: Certificate Registration No.: Ruesselsheim

HALAL CONTRO

EMIATIO

تاريخ إنتهاء صلاحية الشهادة 2017-08-25 رقم سجل الشهادة 04-340-197-9001-340-04 تاريخ إصدار الشهادة في مدينة روسلزهايم 2016-08-26

> Authorization Units: أسماء فريق مر اقبة المنتجات وعملية التصنيع ومتابعيهم

Al-Sheikh Prof. Dr. Muhammad Hassan Hitou, Director Board of Scholars, Shari'ah Compliance, Islamologist, IC, ECM Dr. Rachid Fetouaki, Chemist, Mgr. Regulatory Unit, IC, ECM Dr. Ali Fanous, Food Technologist, Mgr. Audit Unit, IC, ECM

DI Mahmoud Tatari General Manager Al-Sheikh Prof. Dr. Muhammad Hassan Hitou Director Board of Scholars, Islamologist, IC

Dr. All Fanous Technological Panel, IC, ECM

HALAL CONTROL is recognized and appointed by:

JAKIM Malaysia, MUI Indonesia, MUIS Singapore, CICOT & HIT Thailand and other reputable Halal authorities.

* * Certificate Validity Status: http://www.halalcontrol.info/_certstatus/C-197-9001-340-04/status.htm * * *