



Certificate of Analysis

Product Name	<i>trans</i> -Resveratrol	Batch number	17009LSRV2
Product number	RSXOL9800	Manufacture date	2017-10
Storage conditions	Store at room temperature (15°C-30°C). Protect from light	Retest date	2021-09

Test (Method)	Specification	Results
Appearance Visual inspection (SOP RV2.01.01)	Off-white - yellowish powder	Off-white powder
Assay HPLC (SOP RV2.41.01)	98.0-101.0% on an anhydrous and solvent-free basis	98.7%
Water content Ph. Eur. 2.5.12, USP <921>	NMT 2% w/w	0.2%
Identity by IR USP <197K>	IR spectrum must conform with reference standard	IR spectrum conforms with reference standard
Identity by HPLC HPLC (SOP RV2.02.12)	The retention time of the major peak in the chromatogram must conform with that of the standard under assay test	The retention time of the major peak in the chromatogram conforms with that of the standard under assay test
Related compounds and unknown impurities HPLC (SOP RV2.41.01)		
<ul style="list-style-type: none"> Related compounds 	NMT 0.5% w/w for coumaric acid	Not detected
	NMT 0.5% w/w for cinnamic acid	Not detected
	NMT 0.5% w/w for pinosylvin	< limit of quantification
	NMT 0.5% w/w for dihydroresveratrol	0,1%
	NMT 0.1% w/w phloretic acid	Not detected
	NMT 0.1% w/w <i>cis</i> -resveratrol	Not detected
<ul style="list-style-type: none"> Impurities 	Total NMT 0.5% a/a	Conforms
	No single impurity above 0.1% a/a	Conforms



Test (Method)	Specification	Results
Heavy metals (total) Ph. Eur. 2.4.8 USP <231>, Method II	NMT 10 ppm total	Conforms
Heavy metals Ph. Eur. 2.2.58 (ICP-MS) USP <233> (ICP-MS)	Lead NMT 1 ppm Cadmium NMT 1 ppm Arsenic NMT 1.5 ppm Mercury NMT 0.1 ppm	< 0.1 ppm < 0.1 ppm < 0.1 ppm < 0.1 ppm
Microbiology Ph. Eur. 2.6.12, Ph. Eur. 2.6.13 USP <61>, USP <62>	Total aerobic plate count NMT 1000 cfu/g	7 cfu/g
	Total yeast and mould NMT 100 cfu/g	3 cfu/g
	E. coli, coliforms and pseudomonas: absent	Absent
	Salmonella: absent in 25 grams	Absent in 25 grams
	S. cerevisiae: no viable cells	No viable cells
Particle size (External test)	Report D90 result Report D10 result	D90 = 48 µm D10 = 5 µm
Residual solvents Ph. Eur. 2.4.24, USP <467>	Ethanol: NMT 5000 ppm	1061 ppm

NMT: not more than; limit of detection for related substances (w/w): 0.025%, except for *cis*-resveratrol: 0.015%; limit of quantification for related substances (w/w): 0.075%, except for *cis*-resveratrol: 0.05%; reporting threshold for single impurity (a/a): 0.05%

Veri-te™ resveratrol is an Evolva product (Evolva SA, Duggingerstrasse 23, 4153 Reinach, Switzerland).

Veri-te™ is a trademark of Evolva SA.

Jean-Philippe Meyer
VP, Regulatory Affairs

November 1, 2017

Date



RESVERATROL Food Grade

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Certificate N° 691/2017

Lot number **17009LSRV2**

EVOLVA

Manufacturing date : 10/2017

Retest date :09/2018

TEST	RESULTS	M.U.	SPECIFICATION	METHODS
Appearance	Off-white yellowish powder	-	Off-white yellowish powder	RV2.01.01
Colour	19	-	Yellowness Index ≤ 25	RV2.06.05
Assay (anhydrous and solvents free basis)	98.7	%	≥98.0 ≤101.0	RV2.41.01
Water content KF (w/w)	0.2	%	≤ 2	RV2.51.01 (Ph.Eu)
Identity by IR	Conforms	-	IR spectrum must conform	RV2.02.10
Identity by HPLC	Conforms	-	Retention time must conform	RV2.02.12
<u>Related impurities (HPLC) :</u>				
- Dihydroresveratrol	0.1	%	≤ 0.5	RV2.41.01
- Pinosylvin	<0.075 (LOQ)	%	≤ 0.5	
- Coumaric acid	<0.025 (LOD)	%	≤ 0.5	
- Cinnamic acid	<0.025 (LOD)	%	≤ 0.5	
- Phloretic acid	<0.025 (LOD)	%	≤ 0.1	
- Cis -resveratrol	<0.015 (LOD)	%	≤ 0.1	
<u>Other impurities (HPLC) :</u>				
- Total	<0.025 (LOD)	%	≤ 0.5	RV2.41.01
- Single impurity >0.1%	None		None	
Heavy metals				RV2.115.04
Lead	< 0.1	ppm	≤ 1	
Cadmium	< 0.1	ppm	≤ 1	
Arsenic	< 0.1	ppm	≤ 1.5	
Mercury	< 0.1	ppm	≤ 0.1	
Total	< 10	ppm	≤ 10	RV2.115.02



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<u>Microbiology :</u>				
TAMC	7	CFU/g	≤ 1000	RV2.106.01
TYMC	3	CFU/g	≤ 100	RV2.109.01
E.Coli	Absent/g	CFU/g	Absent/g	RV2.170.01
Coliforms	Absent/g	CFU/g	Absent/g	RV2.173.01
Pseudomonas aeruginosa	Absent/g	CFU/g	Absent/g	RV2.176.01
Salmonella (in 25 g)	Absent/ 25g	CFU/g	Absent/ 25g	RV2.175.01
S.Cerevisiae	No viable cells	CFU/g	No viable cells	RV2.177.01
Particle size			Record data	
D (10)	5	µm		RV2.63.10
D (90)	48	µm		
<u>Residual solvents :</u>				
Ethanol	1061	ppm	≤ 5000	RV2.42.02

FOOD GRADE ONLY (spec.RV2-F)

PRODUCED IN SETTIMO TORINESE PLANT

Approve date : 30.10.2017

Print date: 30.10.2017



Stabilimento di Settimo Torinese
QUALIFIED PERSON

Approved by
Albino Bonzano
Qualified Person Olon S.p.A