

## **METAPHARMACEUTICAL**

**Certificate of Analysis** 

N DE LOTE: 0160624

18/06/2024

BASF SE

Attention! Please note that the certificates of analysis are also conveniently available on your BASF online portal.

SIEMSGLUSS IBERICA, S.A.

2024-06-10

Certificate No 4341

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POL.INDL.ST.ANTONI, PARCELA NAVE 2

Lee, Yuri

08620 SANT VICENÇ DELS HORTS BARCELONA

G-ENN/OG +82-63-469-2479

Spain

Certificate of Analysis according to DIN 55350-18-4.2.2

Material

50175050

Riboflavin High Flow 100 (HF)

Order

25KG Fibreboard boxes

Delivery Batch

3387478390 000010 3538774956 000010 RIB3638HF

Purchase order/Customer material A-2240252

Batch/Qty Total

375.000 KG 500.000 KG

Transport

OHA-LX-186

Test parameter	Requirements	UoM	Results
Appearance	Yellow or Orange-yello Crystalline powder.	w,	Complies
Identification¹ (Ph.Eur., Meth.A)	Must conform	*	Complies
Identification¹ (Ph.Eur., Meth.B)	Must conform		Complies
Identification¹ (Ph.Eur., Meth.C)	Must conform		Complies
Identification <sup>1</sup> (USP)	Must conform		Complies
Identification(2) <sup>1</sup> (JP)	Must conform		Complies
Specific optical rotation (Ph.Eur.)	-115 to -135	degree	-130
Specific optical rotation (USP)	-115 to -135	degree	-121
Specific optical rotation <sup>2</sup> (FCC)	+56.5 to +59.5	degree	Complies

The above-mentioned data describes the relevant parameters of the product at the time of issuing this certificate of analysis (CoA). The data is controlled at regular intervals as part of our quality assurance program and is provided for reference only. The contractually agreed quality of the product at the time of passing of risk is exclusively determined by our product specification. Unless specifically agreed by the Parties in writing signed by authorized representatives, no suitability for a particular use shall be presumed or implied based on the CoA and the customer is solely responsible for determining and verifying the suitability of the use of the product for any purpose.



We create chemistry

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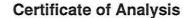
SIEMSGLUSS IBERICA, S.A. 2024-06-10 Certificate No 4341 Page 6 of 8 POL.INDL.ST.ANTONI, PARCELA NAVE 2 Lee, Yuri 08620 SANT VICENÇ DELS HORTS BARCELONA G-ENN/OG +82-63-469-2479 Spain Certificate of Analysis according to DIN 55350-18-4.2.2 Material 50175050 Riboflavin High Flow 100 (HF) Order 3387478390 000010

Order 3387478390 000010
25KG Fibreboard boxes
Purchase order/Customer material
A-2240252

Order 3387478390 000010
Batch RIB3638HF
Batch/Qty 375.000 KG
Total 500.000 KG
Transport OHA-LX-186

Test parameter	Requirements	UoM	Results
Absorbance Absorption (Ph.Eur.)	223, 267, 373, 444nm		Complies
Maxima A 373/267 nm	0.31 to 0.33		0.32
A 444/267 nm	0.36 to 0.39		0.38
Related substances(Ph.Eu	r.)		
Impurity A	Max. 0.025g/100g		0.005
Impurity B	Max. 0.2g/100g		0.03
Impurity C	Max. 0.2g/100g		0.0
Impurity D	Max. 0.2g/100g		0.2
Unspecified impurities	Max. 0.10g/100g each		0.00
Total Impurities	Max. 0.5g/100g		0.2
Lumiflavin			w.
(USP)	Max. 0.025		0.005
Sulfated ash			
(Ph.Eur.)	Max. 0.1g/100g	%	0.1
Residue on ignition			
(USP)	Max. 0.3	%	0.1
Loss on drying			κ
(Ph.Eur.)	Max. 1.5g/100g	%	0.7
Assay			
(Ph.Eur.)	Min.97.0/100g to 103.0/100g	ı %	100.4
© 100	THE CONTROL € 1 CONTROL OF THE CONT	• 020	(contraction)
Assay (USP)	Min 09 0/100g to 100 0/100-	. 1/	00.7
(001)	Min.98.0/100g to 102.0/100g	<b>1</b> %	98.7

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Lee, Yuri

G-ENN/OG

Spain

+82-63-469-2479

Certificate of Analysis according to DIN 55350-18-4.2.2

08620 SANT VICENC DELS HORTS BARCELONA

Riboflavin High Flow 100 (HF)

Material

50175050

Order Delivery 3387478390 000010 3538774956 000010

25KG Fibreboard boxes

Purchase order/Customer material A-2240252

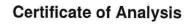
Batch Batch/Qty Total Transport

RIB3638HF 375.000 KG 500.000 KG

OHA-LX-186

	Test parameter	Requirements	UoM Results
-mould counts (USP)  Max. 100 Cfu/g  Complies  Enterobacteria and other gram -negative bacteria3(USP)  Max. 100 Cfu/g  Complies  Escherichia Colis (Ph.Eur.)  Negative  Salmonella3 (Ph.Eur.)  Negative  Staphylococcus aureus3 (Ph.Eur.)  Negative  Negative  Negative  Pseudomonas aeruginosa3 (Ph.Eur.)  Negative  Negative  Negative  Negative  Lead3 (KP AAS)  Max. 10mg/kg  Complies  Cadmium3	Total microbial aerobic count <sup>3</sup>		Complies
-negative bacteria³(USP) Max. 100 Cfu/g Complies  Escherichia Coli³ (Ph.Eur.) Negative Negative  Salmonella³ (Ph.Eur.) Negative Negative  Staphylococcus aureus³ (Ph.Eur.) Negative Negative  Pseudomonas aeruginosa³ (Ph.Eur.) Negative Negative  Heavy metals³ (KP) Max. 10mg/kg Complies  Lead³ (KP AAS) Max. 2mg/kg Complies		Max. 100 Cfu/g	Complies
(Ph.Eur.)  Salmonella³ (Ph.Eur.)  Negative  Negative  Staphylococcus aureus³ (Ph.Eur.)  Negative  Negative  Negative  Negative  Pseudomonas aeruginosa³ (Ph.Eur.)  Negative  Negative  Negative  Negative  Lead³ (KP)  Max. 10mg/kg  Complies  Cadmium³		Max. 100 Cfu/g	Complies
(Ph.Eur.)  Staphylococcus aureus³ (Ph.Eur.)  Negative  Lead³ (KP)  Max. 10mg/kg  Complies  Cadmium³		Negative	Negative
(Ph.Eur.)  Pseudomonas aeruginosa³ (Ph.Eur.)  Negative  Negative  Negative  Negative  Negative  Lead³ (KP)  Max. 10mg/kg  Complies  Cadmium³		Negative	Negative
(Ph.Eur.)  Negative  Negative  Heavy metals³ (KP)  Max. 10mg/kg  Complies  Lead³ (KP AAS)  Max. 2mg/kg  Complies	(A) 5	Negative	Negative
(KP) Max. 10mg/kg Complies  Lead³ (KP AAS) Max. 2mg/kg Complies  Cadmium³	(3)	Negative	Negative
(KP AAS) Max. 2mg/kg Complies Cadmium <sup>3</sup>	The state of the s	Max. 10mg/kg	Complies
		Max. 2mg/kg	Complies
		Max. 1mg/kg	Complies

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Batch

RIB3638HF

A-2240252

Batch/Qty

375.000 KG 500.000 KG

Total Transport

OHA-LX-186

Test parameter	Requirements	UoM	Results
Mercury <sup>3</sup> (KP AAS)	Max. 0.1mg/kg		Complies
Arsenic³ (KP AAS)	Max. 1mg/kg		Complies
Particle size <250μm³ (SOP-0855)	Min. 99g/100g		Complies
<ol> <li>May also be determined by a</li> <li>Not routinely tested</li> </ol>	other means/methods(0	General Notices	s Ph.Eur/USP)

QC-Reference-No.

FP-HF-231211

Production date

11.12.2023

Best before - Retest date

3. tested on every 10 batch

10.12.2027

The product meets the requirements of the current USP/EP/FCC/JP/E101 monographs.

BASF Company Ltd. 57, Oehang 4-gil, Gunsan-si, Jeollabuk-do, Korea

G-ENN/OG Quality Control sig. Lee, Yuri

This Certificate of Analysis has been produced electronically and is valid without signature.

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