Docusign Envelope ID: 7BC828D3-BF70-44AF-BF12-3FBD1E3E9980

TILRAY	CERTIFICATE OF ANALYSIS	
Quality Standard Number: 3010-QS-QC-000049, R9	**Packaging Date: 08AUG24** **DOM: 31JUL24**	**Page 1 of 4**
Product Name: **Tilray Cannabisextrakt THC5:CBD20**	**Batch Size: 399 Units of 25 mL**	**Revision: 1**
Lot: 24005104	**☒ Expiry Date: 05/2025** **☐ Retest Date:**	
CoA Number: 0824-040		

APPROVALS

Prepared by: Signed by: Daniel Tavares
Signer Name: Daniel Tavares
Signing Reason: I am the author of this document
Signing Time: 2024/09/13 | 08:02 BST
23B4B3D267E445AA05B05EE0E018BB8
Daniel Tavares
Quality Control Chemist Associate

Date: 2024/09/13 | 08:02 BST

Reviewed by: Signed by: Olga Santos
Signer Name: Olga Santos
Signing Reason: I have reviewed this document
Signing Time: 2024/09/13 | 08:31 BST
[illegible]988FCEC4820E20BD39
Olga Santos
Quality Control Manager

Date: 2024/09/13 | 08:32 BST

Approved by: Assinado por: Sandra Vieira
Nome do signatário: Sandra Vieira
Motivo da assinatura: Aprovo este documento
Hora de assinatura: 2024/09/13 | 09:54 BST
1409[illegible]F74EF98AC58E25D88ED7A7
Sandra Vieira
Qualified Person

Date: 2024/09/13 | 09:56 BST

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TILRAY	CERTIFICATE OF ANALYSIS	
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Lot: 24005104	**☒ Expiry Date: 05/2025** **☐ Retest Date:**	
CoA Number: 0824-040		

Certificate of Analysis

Test		Acceptance Criteria	Procedure	Result
Physical Properties:				
Appearance		Free of particles /homogeneous /transparent greenish or yellow to brown solution.	3010-TM-QC-000012 Ph.Eur.2.8.2	Complies
Fill Volume		25.0 mL/bottle + 2% (25.0 – 25.5 mL)	Gravimetric	Complies 25.2 mL(25.1–25.3 mL)
Chemistry:				
Identification – THC, THCA, CBD and CBDA		Retention times correspond to that in a standard chromatogram. Positively identified.	3010-TM-QC-000014 Ph.Eur.2.2.46	Complies
Assay (Relative to weight of product)	THC	Total THC – (THC+(THCA*0.877)) -(mg/mL) 90 – 110% of label claim in mg/mL (4.5 mg/mL – 5.5 mg/mL) Report THCA: mg/mL (w/v) Report Total THC% (w/w) (Calculated as per measured density)	3010-TM-QC-000014 Ph.Eur.2.2.46	96% (4.81 mg/mL) Not detected (<0.0013 mg/mL(LoD)) 0.5% (w/w)
	CBD	Total CBD – (CBD+(CBDA*0.877)) -(mg/mL) 90 – 110% of label claim in mg/mL (18.0 mg/mL – 22.0 mg/mL) Report CBDA: mg/mL (w/v) Report Total CBD% (w/w) (Calculated as per measured density)	3010-TM-QC-000014 Ph.Eur.2.2.46	99% (19.7 mg/mL) 0.1 mg/mL 2.1% (w/w)
Related Substances (Relative to combined weight of active ingredients)		CBN ≤ 2.5% (w/w) Total related substances – Report only	3010-TM-QC-000014 Ph.Eur.2.2.46	0.4% (w/w) 0.4% (w/w)
Water Content		≤ 0.5% (w/w)	3010-TM-QC-000013 Ph.Eur.2.5.12	0.04% (w/w)

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Lot: 24005104	☒ **Expiry Date: 05/2025** ☐ **Retest Date:**	
CoA Number: 0824-040		

Test	Acceptance Criteria	Procedure	Result
Elemental Impurities	Arsenic ≤ 1.5 ppm Cadmium ≤ 0.5 ppm Lead ≤ 0.5 ppm Mercury ≤ 0.1 ppm	3010-TM-QC-000009 Ph.Eur.2.4.27	< 0.2186 ppm (LoQ) < 0.2249 ppm (LoQ) < 0.0752 ppm (LoQ) < 0.0157 ppm (LoQ)
Residual Solvents	≤ 0.5% (w/w)	Third Party Ph.Eur.2.4.24	Ethanol: <0.04% (LoQ) n-Hexane: <0.0023%(LoQ)
Pesticide Residues	Complies	Third Party Ph.Eur.2.8.13	Complies[1]
Mycotoxins:			
Aflatoxins	B1 ≤ 2 µg/Kg B1 + B2 + G1 + G2 ≤ 4 µg/Kg	3010-TM-QC-000004 Ph.Eur.2.8.18	Not Detected (<0.28 µg/Kg (LoD) Not Applicable
Microbiology:			
TAMC	≤1x10^3 CFU/g or mL Maximum Acceptable Count = 2000	Third Party Ph. Eur. 2.6.12	<10 CFU/g
TYMC	≤1x10^2 CFU/g or mL Maximum Acceptable Count = 200	Third Party Ph. Eur. 2.6.12	<10 CFU/g
Bile-tolerant gram-negative bacteria	≤1x10^2 CFU/g or mL Maximum Acceptable Count = 200	Third Party Ph. Eur. 2.6.31	<10 CFU/g
Salmonella	Absence (25 g or 25 mL)	Third Party Ph. Eur. 2.6.31	Absent/25g
Escherichia coli	Absence (1 g or 1 mL)	Third Party Ph. Eur. 2.6.31	Absent/g
Staphylococcus aureus	Absence (1 g or 1 mL)	Third Party Ph. Eur. 2.6.13	Absent/g
Pseudomonas aeruginosa	Absence (1 g or 1 mL)	Third Party Ph. Eur. 2.6.13	Absent/g

[1] Periodic testing based on the 3010-RA-QA-000138 and 3010-RA-QA-000137.

☒ **Physical and chemical properties** – (Internal) Performed under manufacturing license in premises located at *Parque Tecnológico de Cantanhede, PME Building, Núcleo 4 – Lote 4A, Laboratórios L01, 3060-197 Cantanhede.*

☐ **Identification DAB Monograph Cannabis flos - Test B:** LEF (3rd Party laboratory) - *Infosaúde – Instituto de Formação e Inovação em Saúde, Unipessoal, Lda*

☒ **Microbiology testing:** LEF (3rd Party laboratory) - *Infosaúde – Instituto de Formação e Inovação em Saúde, Unipessoal, Lda*

☒ **Pesticides**: SGS Portugal (3rd Party laboratory) - *SGS Portugal - Sociedade Geral de Superintendência S.A.*

☐ **Pesticides**: QSI (3rd Party laboratory) - Quality Services International GmbH. Germany

☒ **Residual Solvents:** LEF (3rd Party laboratory) - *Infosaúde – Instituto de Formação e Inovação em Saúde, Unipessoal, Lda.*

☐ **Ochratoxin:** LEF (3rd Party laboratory) - *Infosaúde – Instituto de Formação e Inovação em Saúde, Unipessoal, Lda.*

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Lot: 24005104	**☒ Expiry Date: 05/2025** **☐ Retest Date:**	
CoA Number: 0824-040		

☐ **Total Ash:** LEF (3rd Party laboratory) - *Infosaúde – Instituto de Formação e Inovação em Saúde, Unipessoal, Lda.*

☒ Approved
☐ Not Approved

Comments and conclusions:
Relative density: 0.9479 (Tested by 3010-TM-QC-000011; Ph.Eur.2.2.5) The product complies with DAB 10 Monograph. **All manufacturing stages of this batch of finished product have been carried out full compliance with EU GMP requirements.**

REVISION HISTORY

Revision	Revision Date	Reason for Revision
1	22 AUG 24	First version of this document.