

### **Certificate of Purity - Biopur®**

This package contains a high-quality consumable manufactured under the Biopur® Purity Standard. The Biopur consumables are produced in a controlled environment according to ISO class 8 of ISO 14644-1.

For this product Eppendorf certifies the following:

- > Sterile
- > Pyrogen/Endotoxin-free
- > Human DNA-free
- > Bacterial DNA-free
- > DNase-free
- > RNase-free
- > PCR inhibitor-free
- > ATP-free



These parameters are continuously monitored by an independent certified laboratory. Eppendorf guarantees the conformity within the following limits:

Sterility in accordance with USP, Ph. Eur. 2.6.12

Pyrogens < 0.001 EU/mL (tested according to Ph. Eur. 2.6.14 (LAL test))

Human DNA < 2 pg

Bacterial DNA < 50 fg

DNase < 1.0 x 10<sup>-7</sup> Kunitz units

RNase < 1.0 x 10<sup>-9</sup> Kunitz units

PCR inhibition fewer than 10 targets amplifiable

ATP  $< 5.5 \times 10^{-12} \text{ mg}$ 

Lot-specific certificates can be downloaded from the internet at www.eppendorf.com/certificates.

Hamburg, June 2024

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Joana Tziolis Product Life Cycle Manager Division Consumables Thomas Hengstmann Head of Global Quality Operations

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ISO 9001 Certified

ISO 13485 Certified ISO 14001 Certified

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# Certificate of Quality Pipette tips - Typical values of trace metal release

The values in the table indicate typical values of trace metal concentrations which are obtained after incubating pipette tips with concentrated nitric acid for 1 hour (see: Materials and methods).

As the indicated values were determined in a one-time measurement, they cannot be guaranteed for every lot of pipette tips. Rather the values indicate the extent of trace elements that can be eluted from pipette tips.

				Trace met	tal release	[ng /µL]			
	Al	Cd	Cr	Cu	Hg	Mn	Ni	Pb	Zn
epT.I.P.S.®* <sup>1</sup>									
0.1-10 μL*	0.0038	<0.00002	<0.00005	<0.0001	<0.001	0.00027	<0.00005	<0.00005	<0.001
0.1-20 µL*	0.0034	<0.00002	<0.00005	<0.0001	<0.001	0.00025	<0.00005	<0.00005	<0.001
0.5-20 μL*	0.0032	<0.00002	<0.00005	<0.0001	<0.001	0.00023	<0.00005	<0.00005	<0.001
2-200 μL*	0.0014	<0.00002	<0.00005	<0.0001	<0.001	0.00010	<0.00005	<0.00005	<0.001
20-300 μL	0.0011	<0.00002	<0.00005	<0.0001	<0.001	0.00008	<0.00005	<0.00005	<0.001
50-1000 μL	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
50-1250 μL*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
0.25-2.5 mL*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
0.1-5 mL*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
0.5-10 mL*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
0.5-10 mL L *	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
Eppendorf Var	itips®								
P	<0.0010	<0.00002	<0.00005	<0.00010	<0.0010	<0.00005	<0.00005	<0.00005	<0.0010
S	<0.0010	<0.00002	<0.00005	0.00014	<0.0010	0.00061	<0.00005	0.00005	<0.0010
GELoader®									
0.5 - 20 μL	<0.0010	<0.00002	<0.00005	<0.00010	<0.0010	<0.00005	<0.00005	<0.00005	<0.0010
Microloader									
0.5 - 20 μL	<0.0010	<0.00002	<0.00005	<0.00010	<0.0010	<0.00005	<0.00005	<0.00005	<0.0010

<sup>\*1</sup> applies also to the BioBased variants



The Certificate of Quality applies also for epT.I.P.S.® 384. ep Dualfilter T.I.P.S.®, ep Dualfilter T.I.P.S.® 384 and ep Dualfilter T.I.P.S.® SealMax with the following additional volumes.

				Trace m	etal releas	e [ng /µL]			
	Al	Cd	Cr	Cu	Hg	Mn	Ni	Pb	Zn
epT.I.P.S.® 384,	ep Dualfilte	r T.I.P.S.® 3	884						
0.1-20 μL	0.0035	<0.00002	<0.00005	<0.0001	<0.001	0.00026	<0.00005	<0.00005	<0.001
5-100 μL*	0.0019	<0.00002	<0.00005	<0.0001	<0.001	0.00014	<0.00005	<0.00005	<0.001
ep Dualfilter T.I.	P.S.®*, ep D	ualfilter T.	I.P.S.® Sea	lMax* <sup>1</sup>					
0.1-10 μL S*	0.0038	<0.00002	<0.00005	<0.0001	<0.001	0.00027	<0.00005	<0.00005	<0.001
0.1-10 μL M*	0.0039	<0.00002	<0.00005	<0.0001	<0.001	0.00029	<0.00005	<0.00005	<0.001
2-20 μΙ	0.0027	<0.00002	<0.00005	<0.0001	<0.001	0.00020	<0.00005	<0.00005	<0.001
0.5 -20 μl L	0.0032	<0.00002	<0.00005	<0.0001	<0.001	0.00023	<0.00005	<0.00005	<0.001
2-100 μL*	0.0016	<0.00002	<0.00005	<0.0001	<0.001	0.00012	<0.00005	<0.00005	<0.001
2-200 μL	0.0013	<0.00002	<0.00005	<0.0001	<0.001	0.00009	<0.00005	<0.00005	<0.001
50-1250 μL L*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001
0.2-5 mL L*	<0.001	<0.00002	<0.00005	<0.0001	<0.001	<0.00005	<0.00005	<0.00005	<0.001

<sup>\*</sup> applies also to the BioBased variants

#### Materials and methods:

The pipette tips were filled with their nominal volume with concentrated nitric acid (65 %) and incubated for 1 hour at room temperature (20 °C). The eluate was then analyzed by inductively coupled plasma-mass spectrometry (ICP-MS). The trace metal concentrations are expressed in  $ng/\mu L$ .

The values are the average of three individually analyzed samples. The trace metal release of all other pipette tips indexed with "\*" sizes were calculated from their surface/volume ratio. All values labeled with "<" indicate concentrations below the detection limit of the ICP-MS method.

No metal release was observed after 5-10 rinsings with concentrated nitric acid or after rinsing with 10 % acetic acid or water.

All analyses were performed by GALAB Laboratories accredited to DIN EN ISO/IEC 17025.

Hamburg, May 2023

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Joana Tziolis Product Life Cycle Manager Division Consumables

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ISO 13485 Certified

Monika Schneider Vice President Global Quality Management &

Regulatory Affairs

ISO 14001 Certified

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## Certificate of Quality Eppendorf Laboratory Consumables

### STATEMENT ON PER- AND POLYFLUORINATED ALKYL SUBSTANCES (PFAS)

Eppendorf states that the materials and laboratory consumables listed below are safe with respect to per- and polyfluorinated alkyl substances (PFAS) transmission when used in laboratory applications.

PFAS are industrial chemicals that are used in numerous industrial processes, and consumer products due to their special technical properties.

Some PFAS are already considered substances of very high concern (SVHC) under REACH because they are very persistent in the environment, accumulate in organisms, and can be harmful to humans. Epidemiological studies have shown effects on the thyroid, immune system and reproduction at very low dose levels.

Eppendorf only works with granulate suppliers who guarantee according to their Absence of Substances List that their raw materials are free of PFAS.

This certificate applies to the following Eppendorf Laboratory Consumables:

epT.I.P.S.® Motion ep Dualfilter T.I.P.S.® *1 ep Dualfilter T.I.P.S.® 384 ep Dualfilter T.I.P.S.® SealMax®*1 GELoader® Microloader Eppendorf Serological Pipets	
Positive displacement tips  Mastertip®  Varitips®  Combitips® advanced incl. adapters  ViscoTip®	
Eppendorf Tubes® 3810X/ Flex-Tube®  Eppendorf Safe-Lock Tubes*  Eppendorf DNA LoBind®/ Protein LoBind® Tubes,  Eppendorf Tubes® 5 mL*,*1 incl. adapters  Eppendorf Conical Tubes 15 mL*,*1, 50 mL*,*1, SnapTec®  Eppendorf Conical Tubes 25 mL*1 incl. adapters	50

<sup>\*</sup> applies also to the SafeCode variants

<sup>\*1</sup> applies also to the BioBased variants



Eppendorf Plates®	Eppendorf Microplates* Eppendorf Deepwell Plates* Eppendorf DNA LoBind®/ Protein LoBind® Plates Eppendorf Assay/Reader Microplates				
PCR Consumables	Eppendorf twin.tec® PCR Plates*,*1 Eppendorf twin.tec® PCR Plates LoBind®*1 Eppendorf twin.tec® microbiology PCR Plates Eppendorf twin.tec® real-time PCR Plates				

PCR Tube Strips Fast PCR Tube Strips real-time PCR Tube Strips

PCR Cap Strips PCR Tubes PCR Films & Foils

Cuvettes UVette® Vis Cuvette

Sample Handling Consumables wide-neck bottles

applies also to the SafeCode variants

\*1 applies also to the BioBased variants

Hamburg, February 2024

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ISO 13485 Certified

Thomas Hengstmann Head of Global Quality Operations

Da Boua He

ISO 14001 Certified

Eppendorf®, the Eppendorf Brand Design, epT.I.P.S.®, ep Dualfilter T.I.P.S.®, GELoader®, Mastertip®, Varitips®, CCCadvanced®, Combitips®, ViscoTip®, Eppendorf Tubes®, Flex-Tube®, Eppendorf twin.tec®, LoBind®, SealMax® and UVette® are registered trademarks of Eppendorf SE, Germany.

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Certificate of Quality – Quality Assurance of epT.I.P.S.®\*, epT.I.P.S.® 384, ep Dualfilter T.I.P.S.®\*, ep Dualfilter T.I.P.S.® 384 and ep Dualfilter T.I.P.S.® SealMax\*

All epT.I.P.S. pipette tips and all ep Dualfilter T.I.P.S. filter tips are single-use plastic tips which, in combination with all Eppendorf manual and electronic air-cushion pipettes, form a perfectly functioning pipetting system.

### **Quality Assurance**

Eppendorf confirms that all data for random error and systematic error according to EN ISO 8655 of Eppendorf pipettes are valid only when original Eppendorf pipette tips are used.

All variants of epT.I.P.S. pipette tips and ep Dualfilter T.I.P.S. filter tips are produced in a controlled environment according to ISO class 8 of ISO 14644-1 and are subject to regular quality inspections within a statistical process control.

The Eppendorf Quality Management System is certified according to the international standards ISO 9001, ISO 13485, and ISO 14001.

### Composition

epT.I.P.S. pipette tips and ep Dualfilter T.I.P.S. filter tips are made of virgin polypropylene of highest purity and quality. Our material suppliers do not use or intentionally incorporate the following agents into the materials Eppendorf uses for the production of pipette tips:

- Slip agents (including oleamide, erucamide, stearamide)
- Biocides (including di(2-hydroxyethyl)methyl dodecyl ammonium salts (DiHEMDA))
- Plasticizers (softeners/phthalates)

<sup>\*</sup> applies also to the BioBased variants



The raw materials used for epT.I.P.S.® pipette tips and ep Dualfilter T.I.P.S.® filter tips fulfill the requirements as described in the current version of the FDA, CFR, Title 21 (Food and Drugs) in chapter 178.2010 "Antioxidants and Stabilizers for Polymers" and chapter 177.1520 (a)(1), (b) and (c)1.1 "Olefin polymers" regarding substances used for manufacturing of materials and articles or components of articles intended to come into contact with food.

All resin material is tested, qualified, and shows non-toxic biocompatibility according to the Standards USP Class VI Chapter 88, USP 661.1., EP 3.1.3, EP 3.1.6, and ISO 10993-4, ISO 10993-5, ISO 10993-10, ISO 10993-11.

epT.I.P.S.® pipette tips and ep Dualfilter T.I.P.S.® filter tips and all product components do not contain:

- Metallic dyes
- Latex
- Glucan
- Cellulose

Hamburg, April 2024

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ISO 13485 Certified

Thomas Hengstmann

Head of Global Quality Operations

ISO 14001 Certified

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## Certificate of Quality Eppendorf Laboratory Consumables

#### STATEMENT ON BSE/TSE

As a leading manufacturer of biotech products, Eppendorf uses PP (polypropylene), PC (polycarbonate), PS (polystyrene), and PE (polyethylene) granulates specifically suited for laboratory applications and the manufacturing process of laboratory consumables. PP, PC, PS, and PE granulates may contain small amounts of materials derived from animals.

Eppendorf only works with granulate suppliers who guarantee that their animal components derive exclusively from countries without BSE (bovine spongiform encephalopathy) occurrences. Risk materials are not used. Thus, the requirements of the EU Regulation 1326/2001 and Commission Decision 2001/2/EC amending Decision 2000/418/EC regulating the use of materials presenting risks regarding transmissible spongiform encephalopathies (TSE) are fulfilled.

The granulate production includes – depending on the process – hydrolysis, esterification, or hydrogenation steps in different variations. The common features of these steps include processing conditions with temperatures above 235°C and pressures above 3,000 kPa with retention times up to several hours. The final product is obtained through fractionation, neutralization, and purification. The subsequent extrusion (for the production of granulate) takes place at minimum 200°C for several minutes.

Thus, the production chain of raw materials by far exceeds the stringent requirement of 200°C for 20 minutes (Annex VI, chapter III of EU Regulation 1774/2002, in EU Directives 2000/6/EC and 1999/82/EC, referring to Document EMEA/410/01-Final, latest version: Rev. 3 – 05.03.2011, and in the Report WHO/CDS/VPH/95.145). Any virus, bacterium, or substance causing immunological diseases (TSE, BSE, CJD) is destroyed.

Eppendorf states that the materials and laboratory consumables are to be considered safe with respect to BSE and TSE transmission when used in consumer applications.

This certificate applies to the following Eppendorf Laboratory Consumables:

epT.I.P.S.® 384
epT.I.P.S.® Jong
epT.I.P.S.® Motion
ep Dualfilter T.I.P.S.® \*1
ep Dualfilter T.I.P.S.® 384
ep Dualfilter T.I.P.S.® 384
ep Dualfilter T.I.P.S.® SealMax® \*1
GELoader®
Microloader
Eppendorf Serological Pipets

<sup>\*1</sup> applies also to the BioBased variants



Positive displacement tips	Mastertip® Varitips® Combitips® advanced incl. adapters ViscoTip®
Eppendorf Tubes®	Eppendorf Tubes® 3810X/ Flex-Tube® Eppendorf Safe-Lock Tubes* Eppendorf DNA LoBind®/ Protein LoBind® Tubes, Eppendorf Tubes® 5 mL*, *1 incl. adapters Eppendorf Conical Tubes 15 mL*, *1, 50 mL*, *1, SnapTec® 50 Eppendorf Conical Tubes 25 mL*1 incl. adapters
Eppendorf Plates®	Eppendorf Microplates* Eppendorf Deepwell Plates* Eppendorf DNA LoBind®/ Protein LoBind® Plates Eppendorf Assay/Reader Microplates
PCR Consumables	Eppendorf twin.tec® PCR Plates*,*1 Eppendorf twin.tec® PCR Plates LoBind®*1 Eppendorf twin.tec® microbiology PCR Plates Eppendorf twin.tec® real-time PCR Plates PCR Tube Strips Fast PCR Tube Strips real-time PCR Tube Strips PCR Cap Strips PCR Tubes PCR Films & Foils
Cell Culture Consumables	Eppendorf Cell Culture Dishes Eppendorf Cell Culture Plates Eppendorf Cell Culture Flasks Eppendorf Cell Imaging Dishes Eppendorf Cell Imaging Plates CCCadvanced® Cell Imaging Slides & Coverglasses
Cuvettes	UVette® Vis Cuvette
Sample Handling Consumables	Wide-neck bottles
*applies	also to the SafeCode variants *1applies also to the BioBased variants

Joana Tziolis Product Life Cycle Manager Division Consumables

Hamburg, February 2024

Head of Global Quality Operations

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General Quality Certificate for epT.I.P.S.<sup>®</sup>\*<sup>1</sup>, Combitips<sup>®</sup> advanced, ViscoTip<sup>®</sup>, Eppendorf Tubes<sup>®</sup>\*,\*<sup>1</sup>, Eppendorf Plates<sup>®</sup>\*,\*<sup>1</sup>, UVette<sup>®</sup>

Eppendorf certifies that all consumables have been manufactured in accordance with established manufacturing guidelines and product specifications. The products conform to all Eppendorf quality requirements. Controlled environment with restrictive handling procedures avoids direct human contact with the products.

### **ISO Certification**

The Eppendorf Quality Management System is certified according to ISO 9001:2015-09, ISO 13485:2016-03, and ISO 14001:2015-09.

#### **Materials**

All products are produced with materials such as virgin polypropylene, polyethylene, polycarbonate, polystyrene, or UV-transparent plastic. No recycled materials are used. Our material suppliers do not use or intentionally incorporate the following agents into the materials Eppendorf uses for production:

- Slip agents (including oleamide, erucamide, stearamide)
- Biocides (including di(2-hydroxyethyl)methyl dodecycl ammonium salts (DIHEMDA))
- Plasticizers (softeners/phthalates)
- Melamine
- Silicone
- Latex

During production, no slip agents, biocides, or plasticizers are used. Colorants are free of biological material, free of heavy metals, and free of melamine. Eppendorf confirms that all plastic materials fulfil the requirements as described in the current version of the FDA, CFR, Title 21 (Food and Drugs) in chapter 178.2010 "Antioxidants and Stabilizers for Polymers" and chapter 177.1520 (a)(1), (b) and (c)1.1 "Olefin polymers" regarding substances used for manufacturing of materials and articles or components of articles intended to come into contact with food. Eppendorf does not use any silicone or latex for manufacturing or packaging.

### Production

Products are produced in a controlled environment according to ISO class 8 of ISO 14644-1.

<sup>\*</sup> applies also to the SafeCode variants

<sup>\*1</sup> applies also to the BioBased variants



### **Quality Assurance/Quality Control**

### **Functional Testing**

Products undergo continuous quality controls regarding function, tightness, precision, and reproducibility. Dimensional checks, testing of precision and accuracy, resistance to high centrifugational forces, vapor tightness, flow properties, leak tightness, transparency, etc. are part of Eppendorf Quality Assurance Standards.

### Sterility

Sterile products are sterilized by irradiation according to DIN EN ISO 11137. Each lot of sterilized products is certified by an independent, ISO/IEC 17025-accredited laboratory.

### **Purity Grade Testing**

Purity criteria of the purity grades "Biopur®", "Sterile", "PCR clean" and "Protein-free" are tested and certified lot-specific by an independent, ISO/IEC 17025-accredited laboratory. Biological testing procedures ensure that the certified Eppendorf consumables are free from specific detectable contaminants.

Lot-specific purity certificates can be downloaded at <a href="https://www.eppendorf.com/certificates">www.eppendorf.com/certificates</a>.

### **Traceability**

All products are fully traceable by lot number.

Hamburg, April 2024

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