



# Eppendorf Conical Tubes 15 mL, 25 mL and 50 mL

Instructions for use

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## 1 Safety

### 1.1 Intended use

Eppendorf Conical Tubes 15 mL/50 mL and Eppendorf Conical Tubes 25 mL with screw cap are single-use tubes made from polypropylene for preparing, mixing, centrifuging, transporting and storing solid and liquid samples and reagents.

The products can be used for training, routine and research laboratories in the areas of life sciences, industry or chemistry. The products are intended to be used for research purposes only. Eppendorf does not provide a warranty for other applications. The products are not suitable for use in diagnostic or therapeutic applications. The products may only be used by skilled personnel who have been trained in the areas mentioned above.

### 1.2 Warnings for intended use

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**WARNING! Damage to health from toxic, radioactive or aggressive chemicals as well as infectious liquids and pathogenic germs.**

- ▶ Observe the national regulations for handling these substances, the biosafety level of your laboratory, the material safety data sheets and the manufacturer's application notes.
- ▶ Wear your personal protective equipment.
- ▶ For comprehensive regulations about handling germs or biological material of risk group II or higher, please refer to the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, the current edition).



**WARNING! Risk to health from escaping substances.**

Tube contents may escape if the tube lids are not closed properly or the seal lips in the tube lid are damaged.

- ▶ Only use visually perfect and undamaged tubes.
- ▶ Close the tubes properly. Do not damage the sealing lip.
- ▶ Observe the maximum filling volume. When opening the tubes, foaming or gas-forming substances may escape.
- ▶ Make the necessary safety arrangements for transport or storage to prevent material escaping from the tube.
- ▶ The tubes must not be used with liquid nitrogen. The operating temperature ranges from -86°C to +100°C.



**WARNING! For mixers or centrifuges: Risk of contamination if the tube mounts are too large (wells, rotor bores, buckets).**

Tubes may be destroyed. The tube contents may be accidentally released.

- ▶ Please note height and diameter of the tube. Only use suitable centrifuge inserts or mixer thermoblocks.
- ▶ If required, use the adapter intended for this purpose.



**WARNING! Risk of contamination from damaged tubes during centrifugation.**

The tubes are subjected to strong forces during centrifugation. If used incorrectly, the tubes may be destroyed. The tube contents may be accidentally released.

- ▶ Close tube lids before commencing centrifugation.
- ▶ Always observe the maximum permitted centrifugation forces.
- ▶ Read the operating manual of the centrifuge used.
- ▶ Please note that organic solvents can reduce the mechanical resistance of the tubes. If in doubt, contact Eppendorf Application Support (support@eppeendorf.com).



**WARNING! Risk of contamination from multiple use.**

Consumables are intended for single use only.

- ▶ After use, dispose of consumables in accordance with the substances with which they have come into contact.



**CAUTION! Risk of contamination when disposing of used consumables.**

- ▶ Dispose of used consumables in accordance with the substances with which they have come into contact.
- ▶ Observe the rules that apply to your laboratory.



**NOTICE! Material damage due to incorrect use.**

- ▶ Only use the product for its intended purpose as described in the operating manual.
- ▶ Ensure adequate resistance of materials when using chemical substances.
- ▶ If in doubt, contact the manufacturer of the product.

## 2 Product description

### 2.1 Features

Eppendorf Conical Tubes 15 mL, 25 mL and 50 mL meet the high demands on mechanical resistance during centrifugation, temperature resistance and chemical resistance. They are equipped with a screw cap. The graduation indicates the filling quantity and the labeling area identifies the contents.

## 3 Technical data

	<b>Eppendorf Conical Tubes 15 mL</b>	<b>Eppendorf Conical Tubes 25 mL</b>	<b>Eppendorf Conical Tubes 50 mL</b>
Height	121 mm	78.5 mm	116 mm
Diameter	17 mm	30 mm	30 mm
Filling volume	15 mL	25 mL	50 mL
Storage of aqueous samples at low temperatures: 80 % of the filling volume	12 mL	20 mL	40 mL
▶ Always store the tubes in an upright position.			
Operational temperature	-86 °C – 100 °C		

### 3.1 Material and resistance to chemicals

Material	Tube: polypropylene Screw cap: high-density polyethylene (HDPE)
Chemical resistance	Refer to application no. 56: <i>The best material for original Eppendorf Tubes® and Plates</i> at <a href="http://www.eppendorf.com">www.eppendorf.com</a>
Storage before use	▶ Protect from direct sunlight and UV light. ▶ Store in a cool and dry place
Autoclavability	Not autoclavable

### 3.2 Centrifugation stability

The centrifugation stability of consumables generally depends on the following conditions:

- Properties of the consumable (e.g., material, shape)
- Combination of centrifuge, rotor and, if applicable, adapter
- Accuracy of fit of the consumable in the rotor bore or adapter
- Centrifugation parameters (speed/*g*-force, temperature, centrifugation time)

**6 Technical data**  
Eppendorf Conical Tubes 15 mL, 25 mL and 50 mL  
English (EN)

- Overall weight of consumable and contents
  - Physical and chemical properties of the centrifuged liquid
  - ▶ Perform a test run to determine which conditions are suitable for your application.
- 



**NOTICE! Consumables heat up.**

In non-refrigerated centrifuges, the temperature in the rotor chamber, rotor and sample may increase to above 40 °C, depending on the run time,  $g$ -force (rcf)/ speed and ambient temperature.

- ▶ Please note that this will reduce the centrifugation stability of the micro test tubes and plates.
  - ▶ Please note the temperature resistance of the samples.
- 



The mechanical strength of the tubes is reduced by the use of organic solvents. If in doubt, contact Eppendorf Application Support.

Eppendorf Conical Tubes 15 mL and 50 mL can be centrifuged at  $19500 \times g$  under the following conditions:

- Centrifugation temperature: 4 °C – 25 °C
- Using suitable rotors and, if necessary, adapters
- Centrifugation time: 90 min
- Sample: aqueous solution (density 1.0 g/mL)

Eppendorf Conical Tubes 25 mL can be centrifuged in a 45° fixed-angle rotor at up to  $17000 \times g$ .

Applied testing conditions:

- Centrifuge 5920R; rotor FA6x50 or centrifuge 5810R; FA-45-6-30
- Centrifugation with suitable 25 mL centrifuge adapters
- Centrifugation temperature: 4 °C – 25 °C
- Centrifugation time: 90 min
- Sample: aqueous solutions and suspensions (density  $\leq 1.0$  g/mL)



Further information on centrifugation stability can be found in the instructions for use of the centrifugation adapter for 25 mL *Conical Tubes*.

### 3.3 Eppendorf purity grades

Eppendorf Conical Tubes 15 mL und 50 mL are available with the following batch-related certified purity grades:

- Sterile (Ph. Eur./USP) and pyrogen-free (endotoxin-free), DNase-free, RNase-free, DNA-free
- PCR clean
- Forensic DNA Grade

Eppendorf Conical Tubes 25 mL are available with the following purity grades:

- Eppendorf Quality  
batch-related certified:
- Sterile (Ph. Eur./USP) and pyrogen-free (endotoxin-free), DNase-free, RNase-free, DNA-free
- PCR clean

	<b>Eppendorf Quality</b>	<b>Sterile</b>	<b>PCR clean</b>	<b>Forensic DNA (accord. to ISO 18385)</b>
Certified by batch for the following purity criteria				
Human DNA-free		■	■	■
DNA-free (free of human and bacterial DNA)				
DNase-free		■	■	■
RNase-free		■	■	■
PCR inhibitor-free			■	■
ATP-free				
Pyrogen-free (endotoxin-free)		■		
Sterile (Ph.Eur./USP)		■		

Batch-specific certificates are available on the Internet at: [www.eppendorf.com/certificates](http://www.eppendorf.com/certificates).

**8 Ordering information**  
Eppendorf Conical Tubes 15 mL, 25 mL and 50 mL  
English (EN)

**4 Ordering information**

Order no. (International)	Order no. (North America)	Description
0030 119.860	0030119860	<b>Single Tube Stand</b> for 25/50 mL Tubes, Set of 4
0030 122.151 0030 122.160	0030122151 0030122160	<b>Eppendorf Conical Tubes 15 mL</b> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free, colorless 500 tubes (10 bags × 50 tubes) 500 tubes (20 racks × 25 tubes)
0030 122.178 0030 122.186	0030122178 0030122186	<b>Eppendorf Conical Tubes 50 mL</b> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free, colorless 500 tubes (20 bags × 25 tubes) 300 tubes (12 racks × 25 tubes)
0030 122.194	0030122194	<b>Eppendorf Conical Tubes 15 mL, amber</b> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free, amber (light protection) 200 tubes (4 bags × 50 tubes)
0030 122.208	0030122208	<b>DNA LoBind Tubes</b> DNA LoBind, 15 mL, conical tubes, PCR clean, colorless 200 tubes (4 bags × 50 tubes)
0030 122.216	0030122216	<b>Protein LoBind Tubes</b> Protein LoBind, 15 mL, PCR clean, colorless 200 tubes (4 bags × 50 tubes)
0030 122.224	0030122224	<b>Eppendorf Conical Tubes 50 mL, amber</b> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free, amber (light protection) 200 tubes (8 bags × 25 tubes)
0030 122.232	0030122232	<b>DNA LoBind Tubes</b> DNA LoBind, 50 mL, conical tubes, PCR clean, colorless 200 tubes (8 bags × 25 tubes)
0030 122.240	0030122240	<b>Protein LoBind Tubes</b> Protein LoBind, 50 mL, PCR clean, colorless 200 tubes (8 bags × 25 tubes)
0030 122.259	0030122259	<b>Eppendorf Conical Tubes 15 mL</b> Forensic DNA Grade, colorless 100 tubes, individually wrapped



Order no. (International)	Order no. (North America)	Description
0030 122.267	0030122267	<b>Eppendorf Conical Tubes 50 mL</b> Forensic DNA Grade, colorless 48 tubes, individually wrapped
0030 122.410 0030 122.429	0030122410 –	<b>Eppendorf Conical Tubes 25 mL</b> with screw cap, 200 pieces (5 bags x 40 tubes), clear Eppendorf Quality PCR clean
0030 122.437	0030122437	<b>Eppendorf Conical Tubes 25 mL</b> with screw cap, 200 pieces (8 bags x 25 tubes), clear sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free
0030 122.500	0030122500	<b>Eppendorf Starter Pack</b> screw cap 1 set of 25 mL tubes (PCR clean), 1 set of centrifugation adapter, 1 set of single tube stand
5365 000.109	5365000109	<b>Adapter</b> 25 mL for SmartBlock 50 mL, Set of 4
5353 040.156	5353040156	<b>Tube Holder</b> for Mixmate, for 4 conical tubes 25 mL/50 mL
5820 734.000	5820734000	<b>Centrifuge adapter</b> for Eppendorf Conical Tubes 25 mL with screw cap, Set of 6
0030 140.729		<b>Eppendorf Storage Box 3 × 3, 3.5 inch</b> height 88,9 mm, for 9 conical tubes 25 mL and 4 micro test tubes 5 mL 2 pieces

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