



Reaktionsgefäß

Eppendorf Tubes® 5 mL

Instructions for Use

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U.S. Patents and U.S. Design Patents are listed on [www.eppendorf.com/ip](http://www.eppendorf.com/ip).

## **1 About this manual**

### **1.1 About this manual**

Pay attention to the corresponding operating manuals when using this product in combination with other products or devices. This document does not replace the instructions for use provided with other products or devices.

1. Before using the product, read this document in full.
2. Please ensure that you have this document available when using the product.

## Safety

### 4 Eppendorf Tubes® 5 mL English (EN)

## 2 Safety

### 2.1 Intended use

Eppendorf Tubes are single-use polypropylene tubes 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 life sciences, industrial or chemical sectors. The products may only be used by trained and skilled personnel who have been trained in the sectors mentioned above.

### 2.2 Personal protective equipment

The personal protective equipment ensures the safety and protection of the users working on the device.

Personal protective equipment must comply with country-specific regulations and the regulations of the laboratory.

### 2.3 Residual risks when used as intended

If the product is not used as intended, the installed safety devices may not function correctly. To reduce the risk of personal injury and material damage and to avoid dangerous situations, please observe the general safety instructions.

#### 2.3.1 Personal injury

##### 2.3.1.1 Biological hazards

Pathogenic biological agents can harm your health and the environment.

- Observe the national regulations and the biosafety level of your laboratory.
- Wear suitable personal protective equipment.
- Observe the Safety Data Sheets and instructions for use for the accessories.
- For instructions regarding the handling of germs and biological material in risk group II or above, please refer to the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, check the most current edition).

If the tube lids are not closed properly or the sealing lips are damaged, the tube lids may spring open at elevated temperatures.

- Only use visually perfect and undamaged centrifugation tubes.
- Close the tubes properly. Do not damage the sealing lip.
- Observe the maximum filling volume.
- When opening the tubes, liquid on the lid may splash out.
- Use a clip for tubes with a snap cap if the tube is heated > 80 °C.

- Take appropriate safety precautions during transport and storage to prevent the contents of the tube from escaping.
- Do not use the tubes in liquid nitrogen. The operating temperature ranges from -86 °C to +100 °C. The tube lids may spring open when thawing.

Tubes may be destroyed. The contents of the tube may be released.

- Note the height and diameter of the tube. Only use suitable centrifuge inserts or mixer thermoblocks.
- If necessary, use the adapters provided.

During centrifugation, the tubes are exposed to great stress. If used incorrectly, the tubes may be destroyed. The contents of the tube may be released.

- Close the tube lids before centrifugation. Open tube lids may break off during centrifugation and damage the centrifuge.
- Observe the maximum permitted centrifugation forces.
- Read the operating manual provided for the centrifuge used.
- Please note that organic solvents can reduce the mechanical strength of the tubes. In case of doubt, contact Eppendorf Application Support [support@eppeppendorf.com](mailto:support@eppeppendorf.com).
- Always use 5 mL universal adapters when centrifuging 5 mL Tubes in 15 mL rotor bores.

Consumables are intended for single use only.

- After use, dispose of consumables in accordance with the substances with which they have come into contact.
- Observe the rules that apply to your laboratory.

Consumables are only sterile in sealed packing.

- Check that the packing is undamaged.
- Observe the expiry date printed on the label.
- Only open the packing immediately before use.
- Only use visually perfect items.
- Do not use liquid nitrogen. Consumables may be damaged or seals may burst when thawing.

## **2.3.2 Material damage**

### **2.3.2.1 Material damage**

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

**Safety**

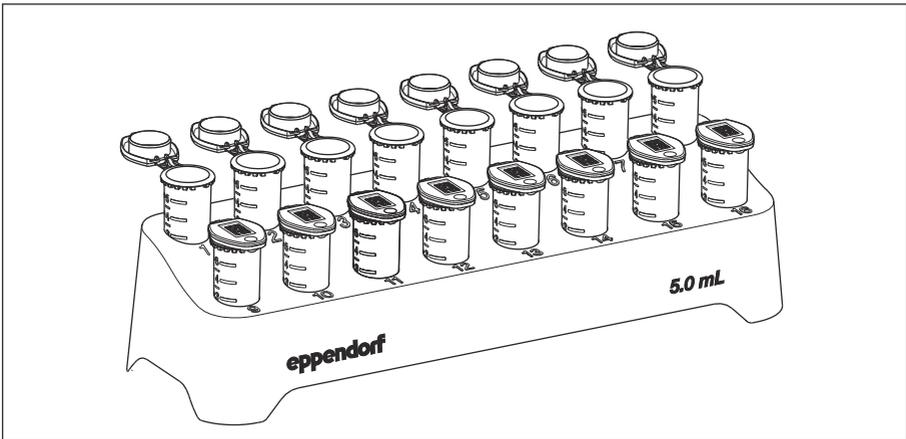
6 Eppendorf Tubes® 5 mL  
English (EN)

### 3 Product description

#### 3.1 Overview

The tubes are available in different purity grades.

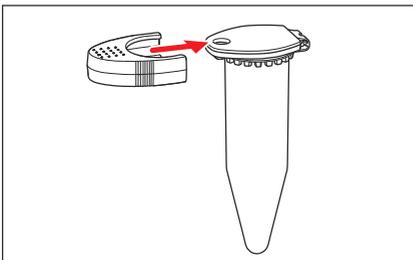
They are equipped with a graduation as an indicator for the filling quantity and a labeling area for identification.



#### 3.2 Using a clip



- Seal the tube with a clip if you are heating it above 80 °C.
- Do not centrifuge any tubes which are sealed with a clip.



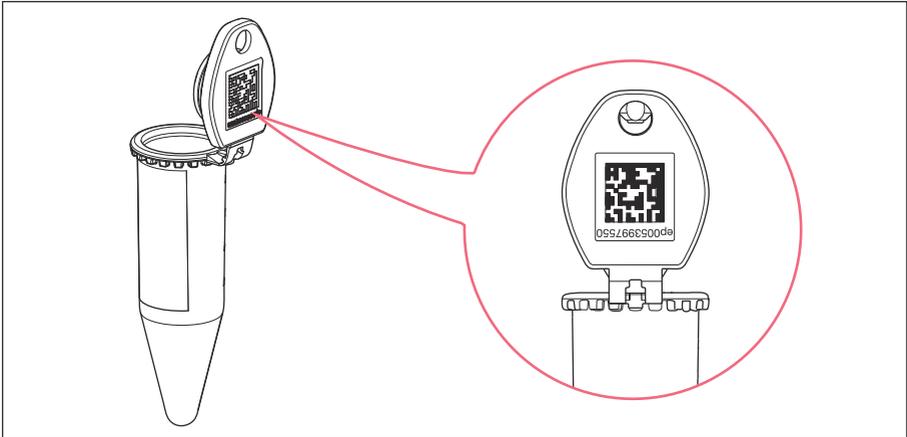
1. Push the clip onto the tube from the front.
2. Heat the tube to the desired temperature.
3. After cooling, remove the clip from the tube.

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Eppendorf Tubes® 5 mL  
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### 3.3 SafeCode Consumables

These single-use tubes are available as a barcoded SafeCode version. You can access all available information on these single-use tubes (including lot numbers) for specific IDs via the Eppendorf webpage.

#### SafeCode position



#### DataMatrix code

A DataMatrix code is used for coding. For its DataMatrix codes, Eppendorf uses the Reed-Solomon error correction algorithm, known as ECC200 (error correcting code). The ECC200 DataMatrix symbology ensures that codes where up to 25 % of the code area is unreadable are also read. This code is unique within the Eppendorf Consumables portfolio and allows unambiguous sample identification. The use of SafeCode Consumables is also facilitated by the plain text (human readable code).

#### SafeCodes

For the SafeCode Consumables, the ep-unique ID SafeCode system is used. The ep-unique ID SafeCode is a number assigned by Eppendorf that is unique for each Eppendorf Consumable.

Characteristic	ep-unique ID SafeCode
DataMatrixFormat	14 × 14
Structure	<div style="border: 1px solid black; padding: 2px;"> <p style="margin: 0;"><b>ep-unique ID</b></p> <p style="margin: 0;">ep1234567890</p> </div> <p>ep + 10 digits</p>
Availability	From stock
Code type	Data Matrix, ECC200
Uniqueness	Unique for each Eppendorf Consumable
ISO standard	ISO/IEC 16022



SafeCodes may become damaged and illegible due to scratching, fading, autoclaving and other influences.

SafeCode Consumables are not suitable for autoclaving. Autoclaving damages the SafeCode and can result in a loss of information.

### Using the SafeCode consumables

Check the compatibility of your system (reading device and software) before using the various SafeCode Consumables.

Also check whether data is transmitted without error in your systems.



Multiple use of SafeCode Consumables leads to inconsistent data and can result in information loss and sample mix-up. Assess the consequences of information loss or sample mix-up and implement risk minimization mechanisms, if necessary.

### DataPort

A complete description of the tubes including lot number, technical data, certificates and other information can be found on our webpage at [www.eppendorf.com/certificates](http://www.eppendorf.com/certificates) (Service & Support > Quality and Certificates > Certificates).

**Technical data**

Eppendorf Tubes® 5 mL  
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**4 Technical data**

Eppendorf Tubes 5.0 mL with	snap cap	SafeCode
Material	Polypropylene (colored, colorless)	
Storage before use	Protect from direct sunlight and UV light. Store dry at ambient temperature.	
Chemical resistance	See Application No. 56: The best material for original Eppendorf Tubes® and Plates at <a href="http://www.eppendorf.com">www.eppendorf.com</a>	
Operating temperature	-86 °C to 80 °C when using the clip: ≤ 100 °C	-86 °C to 80 °C when using the clip: ≤ 100 °C
Autoclavability	when open 121 °C, 20 min	not autoclavable

**4.1 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)
- Overall weight of consumables and contents
- Physical and chemical properties of the centrifuged liquid



- Perform a test run to determine the suitable conditions for your application.
- The mechanical strength of the tubes is reduced by the use of organic solvents. In case of doubt, please contact Eppendorf Application Support.

**NOTICE!**

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

- Note that this will reduce the centrifugation stability of the centrifugation tubes.
- Note the temperature resistance of the samples.

Eppendorf Tubes 5.0 mL can be centrifuged at up to 25,000 × g under the following conditions:

- Centrifugation in a 45° fixed-angle rotor
- Sample temperature of 40 °C with aqueous saline solution (≤ 1.0 g/mL density)
- Use of suitable centrifuge adapters
- Centrifugation time: 90 min

#### 4.2 Eppendorf purity grades

	Eppendorf Quality	Sterile	PCR clean	Biopur
				

#### Batch testing (certified) for the following purity criteria:

Human-DNA-free			■	■
DNA-free (free of human and bacterial DNA)				■
DNase-free			■	■
RNase-free			■	■
PCR-Inhibitoren-free			■	■
ATP-free				■
Pyrogen-free (endotoxin-free)		■		■
Sterile (Ph.Eur./USP)		■		■

The tubes are available with the following purity grades (tested per batch):

- Eppendorf Quality
- Sterile (Ph. Eur./USP), pyrogen-free (endotoxin-free), DNase-free, RNase-free, DNA-free

Batch-related certificates are available online at: [www.eppendorf.com/certificates](http://www.eppendorf.com/certificates).

**Ordering information**

Eppendorf Tubes® 5 mL  
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**5 Ordering information****5.1 Ordering information**

<b>Description</b>	<b>Order no.</b>
<p><b>DNA LoBind® Tubes</b> snap cap, DNA LoBind®, 5.0 mL PCR clean, colorless, 200 tubes (4 bags × 50 tubes)</p>	0030 108 310
<p><b>Eppendorf Tubes® 5.0 mL</b> 5.0 mL, 2D SafeCode PCR clean, colorless, 200 tubes (2 bags × 100 tubes)</p>	0030 113 462
<p>snap cap, 5.0 mL Eppendorf Quality, colorless, 200 tubes (2 bags × 100 tubes)</p>	0030 119 401
<p>PCR clean, amber (light protection), 200 tubes (2 bags × 100 tubes)</p>	0030 119 452
<p>PCR clean, colorless, 200 tubes (2 bags × 100 tubes)</p>	0030 119 460
<p>Biopur®, colorless, 50 tubes, individually wrapped</p>	0030 119 479
<p>sterile, colorless, 200 tubes (10 bags × 20 tubes)</p>	0030 119 487
<p>screw cap, 5.0 mL Eppendorf Quality, colorless, 200 tubes (2 bags × 100 tubes). Replaces order no. 0030119517.</p>	0030 122 305
<p>PCR clean, colorless, 200 tubes (2 bags × 100 tubes)</p>	0030 122 313
<p>sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free, colorless, 200 tubes (2 bags × 100 tubes)</p>	0030 122 321
<p><b>Eppendorf Tubes® 5.0 mL starter pack</b> snap cap, 5.0 mL, 400 tubes (2 packages with 2 bags of 100 each), 2 racks (with 12 locations each), white, 8 universal adapters for rotors with bore holes for 15 mL conical tubes PCR clean, colorless</p>	0030 119 380
<p><b>Protein LoBind® Tubes</b> snap cap, Protein LoBind®, 5.0 mL PCR clean, colorless, 100 tubes (2 bags × 50 tubes)</p>	0030 108 302
<p><b>Storage Box 5 × 5</b> freezer box, for 25 tubes 5 mL, 4 pcs., height 64 mm, 2.5 in, polypropylene, for freezing to -86 °C, autoclavable, with lid and alphanumeric code</p>	0030 140 532

Description	Order no.
freezer box, for 25 tubes 5 mL screw cap, 2 pcs., height 76 mm, 3 in, polypropylene, for freezing to -86 °C, autoclavable, with lid and alphanumeric code	0030 140 613
<b>Tube Clip for Eppendorf Tubes® 5.0 mL</b> 5.0 mL Eppendorf Quality, 10 pcs.	0030 119 509







[www.eppendorf.com](http://www.eppendorf.com)

**Your local distributor: [www.eppendorf.com/contact](http://www.eppendorf.com/contact)**  
Eppendorf SE · Barkhausenweg 1 · 22339 Hamburg · Germany  
[eppendorf@eppendorf.com](mailto:eppendorf@eppendorf.com) · [www.eppendorf.com](http://www.eppendorf.com)