

eppendorf



Eppendorf Tubes® 5.0 mL

Instructions for use

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1 Safety

1.1 Intended use

Eppendorf Tubes 5.0 mL 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 Safety notes



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 biological security 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, in its respectively current valid version).



WARNING! Risk to health from escaping substances.

If the tube lids are not sealed properly or the lip seal is damaged, the tube lid may burst open at increased temperatures.

- ▶ Only use optically perfect and undamaged reaction tubes.
- ▶ Close the tubes properly. Do not damage the seal lip.
- ▶ Observe the maximum filling volume. When opening the tubes, liquid at the lid may splash out.
- ▶ Use a clip for tubes with a snap cap if the tube is heated > 80 °C.
- ▶ Make the necessary safety arrangements for transport or storage to prevent material escaping from the tube.
- ▶ Do not use the tubes in liquid nitrogen. The operating temperature ranges from -86°C to +100°C. If the tubes were frozen in liquid nitrogen, the tube lids may open up during thawing.

Safety

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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. Open tube lids can break off during centrifugation and damage the centrifuge.
- ▶ 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. In case of doubt, contact Eppendorf Application Support (support@eppendorf.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.



WARNING! Risk of contamination

Tubes are only sterile in closed packaging. After five years the shelf life expires even in closed packaging.

- ▶ Only open the packaging immediately before use.
- ▶ Observe the expiry date printed on the packaging.



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 applicable to your lab.



NOTICE! Material damage from incorrect use.

- ▶ Only use the product for its intended purpose as described in the operating manual.
- ▶ Ensure adequate material resistance when using chemical substances.

2 Product description

Eppendorf Tubes 5.0 mL are available in different purity grades (see p. 7).

Eppendorf Tubes 5.0 mL are equipped with a graduation as an indicator for the filling quantity and a labeling area for identification.

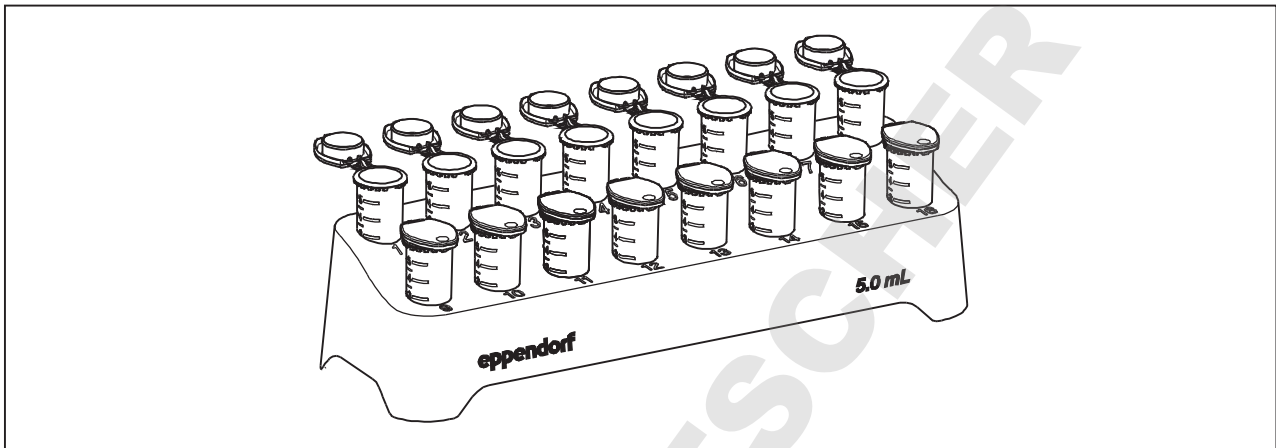
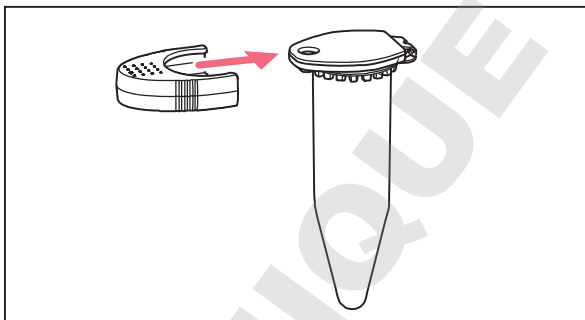


Fig. 2-1: Tubes in a 5.0 mL tube rack

2.1 Use clip

- ▶ If you are heating the tubes above 80 °C, seal them with a clip.
- ▶ 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 at the required temperature.
3. When the tube has cooled down, remove the clip from the tube.

3 Technical data

	Eppendorf Tubes 5.0 mL	Eppendorf Tubes 5.0 mL with screw cap
Material	Polypropylene (colored, colorless)	
Storage before use	Protect from sunlight and UV rays. Store dry at room temperature.	
Resistance to chemicals	Refer to application no. 56: <i>The best material for original Eppendorf Tubes® and Plates</i> at www.eppendorf.com	
Operational temperature	-86 °C – 80 °C when using the clip: ≤ 100 °C	-86 °C - 100 °C
Autoclavability	when opened, 121 °C, 20 min	not autoclavable

3.1 Centrifugation stability

The resistance to centrifugation 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 consumable and contents
 - Physical and chemical properties of the centrifuged liquid
- ▶ Perform a test run to define the suitable conditions for your application.



NOTICE! Micro test tubes heat up.

In uncooled 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.

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







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

Eppendorf Tubes 5.0 mL can be centrifuged at up to 25000 × *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

3.2 Eppendorf purity grades

	Eppendorf Quality	Sterile	PCR clean	Biopur
				

Batch testing (certified) for the following purity criteria

Free of human DNA			■	■
DNA-free (free of human and bacterial DNA)				■
DNase-free			■	■
RNase-free			■	■
Free of PCR inhibitors			■	■
ATP-free				■
Pyrogen-free (endotoxin-free)		■		■
Sterile (Ph.Eur./UPS)		■		■

Eppendorf Tubes 5.0 mL with screw cap are available with the following purity grades (tested per lot):

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

Batch-specific certificates on the Internet at: www.eppendorf.com/certificates.

Ordering information

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English (EN)

4 Ordering information

Order no. (International)	Order no. (North America)	Description
0030 119.380	0030119380	Starter Pack Eppendorf Tubes 5.0 mL PCR clean, 400 pieces, 2 Racks, 8 universal adapters
0030 119.401	0030119401	Eppendorf Tubes 5.0 mL Eppendorf Quality, 200 pieces, clear
0030 119.452	0030119452	Eppendorf Quality, 200 pieces, amber (light protection)
0030 119.460	0030119460	PCR clean, 200 pieces, clear
0030 119.487	0030119487	Sterile, 200 pieces, clear
0030 119.479	0030119479	Biopur, 50 pieces, clear , individually packaged
0030 108.302	0030108302	Eppendorf Protein LoBind Tubes 5.0 mL PCR clean, 100 pieces
0030 108.310	0030108310	Eppendorf DNA LoBind Tubes 5.0 mL PCR clean, 200 pieces
0030 119.509	0030119509	Tube Clip for Eppendorf Tubes 5.0 mL 10 pieces
0030 140.532	0030140532	Storage Box 5 × 5, for 25 Eppendorf Tubes 5.0 mL, height 63.5 mm (2.5 in), autoclavable 4 pieces
0030 122.305	0030122305	Eppendorf Tubes 5.0 mL with screw cap Eppendorf Quality, 200 pieces
0030 122.313	0030122313	PCR clean, 200 pieces
0030 122.321	0030122321	Sterile, 200 pieces
0030 140.613	0030140613	Storage Box 5 × 5, for 25 Eppendorf Tubes 5.0 mL with screw cap, height 76.2 mm (2.5 in), autoclavable 2 pieces
0030 119.495	0030119495	Tube rack for Eppendorf Tubes 5.0 mL 2 pieces

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