



Eppendorf Tubes®

Instructions for use

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1 Safety

1.1 Intended use

Eppendorf Tubes are single use sample tubes intended as primary vessel in accordance with EN 14254:2004 and for storing human test specimen, with the exception of blood samples for in vitro diagnostics. Eppendorf Tubes are intended for use by trained and skilled personnel only.

1.2 Safety instructions



WARNING! Risk of contamination

- ▶ Do not use the tubes for In-Vivo applications.



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.
- ▶ Consult the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, in its respectively current valid version).



WARNING! Health hazard due to 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 visually 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.
- ▶ 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.



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).
- ▶ Always use 5 mL universal adapters when centrifuging 5 mL Tubes in 15 mL rotor bores.



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 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.
- ▶ In case of any doubts, contact the manufacturer of this product.

2 Product description

Eppendorf Tubes are available in the following product versions:

- Eppendorf Safe-Lock Tubes 0.5 mL
- Eppendorf Safe-Lock Tubes 1.5 mL
- Eppendorf Safe-Lock Tubes 2.0 mL
- Eppendorf Tubes 5.0 mL

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

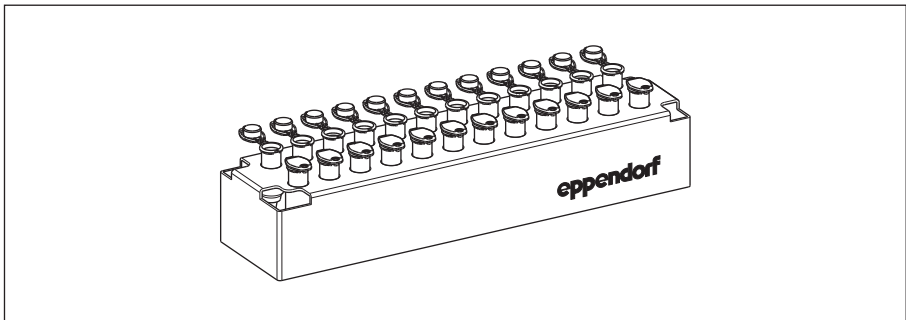


Fig. 2-1: Tubes in a 1.5/2.0 mL tube rack

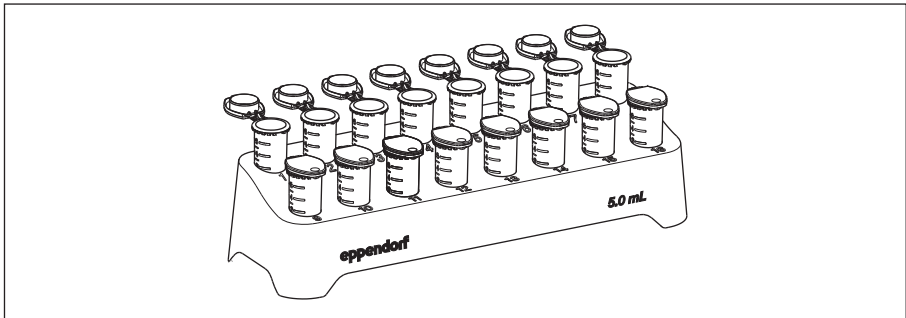


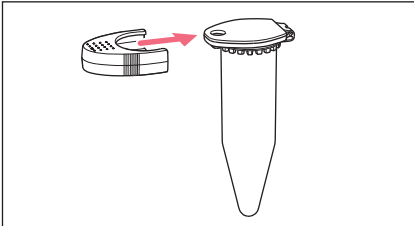
Fig. 2-2: Tubes in a 5.0 mL tube rack

6 Product description
Eppendorf Tubes®
English (EN)

2.0.1 Clip for 5 mL tubes



- ▶ 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. Temper the device at the desired temperature.
3. When the tube has cooled down, remove the clip from the tube.

3 Technical data

3.1 All Tubes

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
Shelf life	8 years from the month of manufacture. The use by date is listed on the product label.
Sample storage	Always store the tubes in upright position.

3.2 Eppendorf Safe-Lock Tubes

Operational temperature	-86 °C - 100 °C
Autoclavability	Upright at 121 °C, 20 min

3.3 Eppendorf Tubes 5 mL

Operational temperature	-86 °C – 80 °C When using the clip: = 100 °C
Autoclavability	Upright at 121 °C, 20 min

3.4 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 consumable and contents
 - Physical and chemical properties of the centrifuged liquid
- ▶ Perform a test run to determine 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 and plates.
- ▶ Please note the temperature resistance of the samples.



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

*The tubes can be centrifuged with the maximum *g*-forces (rcf) listed in the table below 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

Tube		Maximum <i>g</i> -force
Eppendorf Tubes	0.5 mL	30,000 × <i>g</i>
	1.5 mL	30,000 × <i>g</i>
	2.0 mL	25,000 × <i>g</i>
	5.0 mL	25,000 × <i>g</i>

4 Ordering information

Order no. (International)	Description
0030 121.503	Eppendorf Safe-Lock Tubes 0.5 mL 500 pieces, clear Eppendorf Quality
0030 121.872	Eppendorf Safe-Lock Tubes 1.5 mL 1,000 pieces, clear Eppendorf Quality
0030 121.880	Eppendorf Safe-Lock Tubes 2.0 mL 1,000 pieces, clear Eppendorf Quality
0030 119.517	Eppendorf Safe-Lock Tubes 5.0 mL 200 pieces, clear Eppendorf Quality

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