

Where to save CO<sub>2</sub>e?



# Reduce Your Carbon Emissions

## Eppendorf Tubes® BioBased 5 to 50 mL

Eppendorf Tubes® BioBased are made from at least 90% renewable feedstock (recycled e.g., from food oil wastes like used cooking oil and residues), applying ISCC mass balance approach.

To establish comparability, Eppendorf conducted two life cycle analyses (LCAs). One for the Eppendorf Tube 5.0 mL with screw cap made of fossil-based PP and one for the corresponding tube made of biobased PP.

The LCAs were performed under the following conditions:

- > According to standards ISO 14040 and ISO 14044
- > Conducted by independent third party
- > Review by DEKRA Assurance Services

# Data for Carbon Emissions and Emission Savings

The analyses are based on the “cradle to gate” principle to be able to evaluate the values determined independently of the different delivery routes to the customer. Based on the values determined for the 5 mL tube, we have calculated the corresponding CO<sub>2</sub>e savings for the 15 mL, 25 mL, and 50 mL tubes with screw caps.

In the following, we show the absolute emission savings per tube determined on the basis of the LCAs described above, as well as the emission savings calculated on this basis for 15 mL, 25 mL, and 50 mL Eppendorf Tubes®.

This data set is the result of the comprehensive Life Cycle Analyses conducted for the 5 mL tubes (biobased + fossil-based). The critical review was performed by independent external experts.

Absolute amount of emissions saved when using a 5 mL biobased tube instead of a fossil-based 5 mL tube.

Tube Volume	Emission per fossil-based tube – Cradle to Gate [g-CO <sub>2</sub> -equ]	Emission per biobased tube – Cradle to Gate [g-CO <sub>2</sub> -equ]	Relative emission saving per tube – Cradle to Gate [%]
5 mL	18.5	15.2	17.8

Absolute emission saving per tube [g-CO <sub>2</sub> -equ]	Absolute emission saving per package [g-CO <sub>2</sub> -equ]
3.3	660

15 mL	N/A	N/A	N/A
25 mL	N/A	N/A	N/A
50 mL	N/A	N/A	N/A

5.6	2,800
6.7	1,340
11.1	5,550

Tube: 90% biobased Polypropylene; Screw cap: 100% fossil-based Polyethylene

Validated by 3<sup>rd</sup> party

The data is depending on the boundaries set for the analysed system. Cradle to Gate: The emissions generated, starting from the collection of the raw material and ending with the final product leaving the warehouse. Distribution + end of life are excluded. As a Life Cycle or Carbon Footprint Analysis is required, there are no values for other tube sizes available.

These values have been internally computed for the other tube sizes. These values are not validated by an independent 3<sup>rd</sup> party.

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