



## Fact sheet

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# Calculating the recycling rate of PET containers

The Ordinance on Beverage Containers (BCO) of 5 July 2000 sets out a minimum recycling rate of 75% for glass, PET and aluminium beverage containers. If this recycling rate is not attained, the DETEC may introduce a deposit.

The FOEN commissions the Swiss Association for Environmentally Friendly Drinks Packaging (SVUG) to collect data on the sales of containers and calculates the recycling rate based on these and other collected data.

In 2011, 38,010 tonnes of PET containers were recycled. This equals a rate of 81%.

### Calculating the sales of PET containers

Sales of aluminium cans are calculated based on the quantity of PET containers (measured in tonnes) sold in the Swiss market during a calendar year.

Every year, the SVUG is commissioned by the FOEN to collect the following data from importers and producers that market PET containers in Switzerland (except milk and dairy products):

- The total quantity of beverages sold in hectolitres (hl)
- The percentage of reusable containers in the total quantity in hectolitres (hl)
- The percentage of non-returnable containers in the total quantity in hectolitres (hl) and the weight of the containers in kilograms (kg). This makes it possible to calculate the total tonnage of non-returnable beverage containers.

This data is used to calculate the sales of non-returnable PET beverage containers in tonnes.

## Calculating the quantity collected

Used PET containers are collected by PET Recycling Schweiz (PRS) and other collectors (e.g. Denner, Aldi, Lidl, Otto). Data on the quantities collected are gathered by PRS, which carries out the collection, sorting and recycling itself, and by the SVUG, which assesses the quantities collected by the other collectors based on their data.

The quantity of collected PET containers is the tonnage of non-returnable PET containers that are collected during a calendar year in Switzerland.

## Calculating the recycling rate

The recycling rate is the ratio of the quantity of recycled PET (e.g. bottle to bottle, fibres or containers) to the total PET containers sold.

The percentage of pure PET is calculated from the gross weight of the collected containers as follows:

The gross weight of the collected quantity is calculated during collection. Contaminates (remaining content in bottles, incorrectly sorted items, and other waste) and components of PET containers (lids, lid rings and labels) are also included in the gross weight. These other materials and components are removed in the subsequent sorting and recycling process.

The net weight of the quantity of pure PET is calculated by deducting a fixed percentage from the gross weight based on empirical values. This fixed percentage is 9.5% for the PRS collection and 15% for the collections of other collectors that are assessed by the SVUG. The reason for this difference is that PRS also measures the sorting by weight and the lower fixed percentage is deducted only for the components, while the higher fixed percentage for the SVUG data is deducted for the collected quantities and therefore takes into account both the components and the contaminants.

## Difference between the calculation methods in Switzerland and the EU

The difference in the calculation method of the PET recycling rate in the EU and the method used in Switzerland is that a *collection* or *sorting* rate is reported in the EU, while the *recycling* rate is calculated in Switzerland.

The EU has no standard regulation on the recycling process for “recovering materials”, which means that the calculation methods differ between EU countries. The calculation of the PET recycling rate in the EU is expressed more simply by the following formula:

*Collected PET containers + components that can be recovered for materials or energy + recyclable contaminants* (only in some countries).

In contrast, in Switzerland, only the quantity of pure PET containers is used for the calculation.

## Requirement to report PET exports

PET from Switzerland is recycled both in and outside the country. The export of PET containers for recycling is not subject to an authorisation. However, under Art. 19 BCO, exported quantities of PET must be reported to the FOEN. In past years, certain exports were incor-

rectly reported or not reported at all. To assess the quantities of recycled PET containers as accurately as possible, the FOEN works closely with the SVUG and PRS and recently reminded PET-exporting companies that they are required to report this data.

<b>PET data in 2011 in tonnes</b>	
Sales	46,782.0
Collection without contaminants (sorting)	41,621.0
Recycling without contaminants and components	38,010.0
Collection rate % (without contaminants)	89.0
Recycling rate %	81.2

Due to the different fixed percentages and calculation methods, the published PET recycling rate in Switzerland is a rather conservative figure. The actual recycling rate may be slightly higher. Unlike in the EU, the Swiss recycling rate corresponds to the actually recycled PET materials from the beverage containers.

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