GIBCO® Media Bottles

Comparison to Traditional Media Bottles

Green Benefits

- Less packaging
- Less use of nonrenewable resources
- Less energy to produce
- Decreased fuel consumption and greenhouse gas emissions for transport
- Less waste disposal

Introduction

Life Technologies is committed to designing products with the environment in mind—it's one more step toward a smaller footprint. This fact sheet provides the rationale behind the environmental claim that this product utilizes sustainable packaging principles. The new GIBCO® media bottles use less source material and are more recyclable than other media bottles available on the market today, thereby utilizing fewer resources, generating less waste, and emitting fewer greenhouse gases during transit.

Product Description

The GIBCO® media bottle was redesigned to provide better ergonomic features, ease of use, and reduced chance of contamination. The more compact design of the new GIBCO® bottle allows for easier handling and storage, while resulting in reduced packaging.

Green Features

Sustainable Packaging

The new 1 L GIBCO® bottle uses 38% less source material (32% less for the 0.5 L bottle) than the comparable media bottles on the market today (Table 1). By using less material, less petroleum feedstock is required, and fewer greenhouse gas emissions are generated [1].

Table 1. Decreased Weight of the New GIBCO® Bottle Compared to Traditional Media Bottles of Equivalent Volume.

1 L bottle	Weight	500 mL bottle	Weight
NALGENE Sterile 1 L square media bottle (2019-1000)	187 g	NALGENE Sterile 500 mL square media bottle (2019-500)	116 g
New 1 L GIBCO® media bottle	116.5 g	New 500 mL GIBCO® media bottle	79.41 g
Material Reduction	**38%**	**Material Reduction**	**32%**

The overall recyclability of the bottle has been addressed by eliminating the need to segregate its components. The new bottle closure design eliminates a foam liner and glue and utilizes plastic material that can be co-recycled with the bottle. Both the cap and the bottle itself are made from plastic material that is highly recyclable (HDPE and PETE). However, due to the nature of many of the products in the bottles and potential biohazard issues, many institutions will not recycle them [2].

In addition, when designing the new bottle and sourcing its raw materials, local vendors were specifically chosen to minimize transportation en route to the company. Previously, each bottle traveled 1,384 miles to the production facility. The new bottle travels 875 fewer miles on its way to be filled, thereby consuming less fuel and generating 3,300 fewer pounds of CO2 for every shipment. This calculation is based on CO2 emission estimates taken from the EPA Climate Leaders Greenhouse Gas Core Protocol derived from the Bureau of Transport Statistics, National Transport Statistics for 2007 and U.S. Greenhouse Gas Emissions and Sinks: 1990-2005.

1. Representative data.
2. Please consult with applicable federal, state, and/or local regulatory agency for waste disposal instructions.

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