



BÜRKLE MAGAZINE

Sustainable: Bürkle Bio-PE Disposable Samplers with ACT Label

Laboratories play a crucial role in research and the development of new technologies. However, they also consume a significant amount of resources and energy. For instance, according to the non-profit organization My Green Lab, water consumption in laboratories is four times higher than in office spaces, and energy consumption is 5—10 times higher. Furthermore, laboratories generate approximately 5.5 million tonnes of plastic waste annually.

Especially in sectors like pharmaceuticals and research, large global companies are increasingly recognizing their responsibilities towards environmental sustainability. They aim to reduce their ecological footprint by introducing sustainability reports and programs. In the context of laboratories, where even minor contamination can have substantial effects and where disposable products are often unavoidable, sustainable procurement plays a pivotal role in achieving these ecological goals.

ment and Strategy Collaborative) regarding the environmental impact of laboratory products, making it easier for labs to source environmentally friendly products.

What is the ACT Label?

The ACT Label criteria, also known as the Environmental Impact Factor (EIF) criteria, were developed with input from industry experts and external stakeholders. Scientists, sustainability officers, procurement specialists, and manufacturers all provided valuable feedback on the EIF criteria, resulting in a comprehensive product labeling program for laboratory products.



Addressing this demand from scientists and procurement specialists, the non-profit organization My Green Lab has developed the ACT Label. This label provides transparent, independently verified information (Sustainable Manage-

How to Interpret the ACT Label?

The ACT Label criteria were developed with input from industry experts and external stakeholders. Scientists, sustainability officers, procurement specialists, and manufacturers all provided valuable feedback on the criteria, resulting in a comprehensive product labeling program for laboratory products.

Scores on the ACT Label range from 1, indicating the lowest environmental impact, to 10, indicating the highest environmental impact. For equipment, the values for energy and water consumption represent the actual daily consumption and may exceed a value of 10.



This innovative approach enables Bürkle to meet stringent quality requirements while also safeguarding the environment. The LaboPlast® Bio samplers are manufactured and packaged in a clean room. The SteriPlast® Bio products go a step further; in addition to using renewable raw materials, they are sterilized using gamma rays.

In summary, the Bürkle Bio range offers a sustainable alternative that meets high-quality demands.

This category is either a yes or a no.

The total sum of all values corresponds to the environmental compatibility factor.

ACT labels are valid for two years from the date of issue.

 ACT. EU <small>The Environmental Impact Factor Label</small>	
Bürkle GmbH Spoon LaboPlast Bio, single-use, Bio-PE, 10 ml	
Bad Bellingen, Baden-Württemberg, Germany SKU 5379-0012	
Environmental Impact Scale Decreasing Environmental Impact 1 10	
Manufacturing	
Manufacturing Impact Reduction	3.0
Renewable Energy Use	Yes
Responsible Chemical Management	5.0
Shipping Impact	1.0
Product Content	1.0
Packaging Content	10.0
User Impact	
Energy Consumption (kWh/day)	N/A
Water Consumption (liters/day)	N/A
Product Lifetime	5.0
End of Life	
Packaging	7.0
Product	8.9
Innovation	
Innovative Practices	-1.0
Environmental Impact Factor:	39.9
Label Valid Through:	August 2025
 act.mygreenlab.org	

The regional labels show the differences in transport and end-of-life impacts for each region where the product is sold (EU, US, UK).

These values are ranked on a scale of 1 to 10. 1 represents the lowest, 10 the highest environmental impact.

These values represent the actual daily consumption and only refer to appliances.

A low factor means a lower environmental impact.

Bürkle SteriPlast® and LaboPlast® Bio Disposable Samplers

The increasing demands for sampling in sensitive industries, such as pharmaceuticals, often necessitate the use of disposable products. However, given the growing environmental challenges, a rethinking becomes imperative. Bürkle has addressed this issue by offering an innovative alternative with its LaboPlast® Bio and SteriPlast® Bio disposable sampler range. The plastic used in the bio range is derived from components of the sugar cane plant, making it a renewable raw material.

Bürkle ACT Label Scoring Factors

Below, you'll find detailed information about the individual scoring factors, ranging from the manufacturing process to product disposal, and how Bürkle implements them.

Reducing the Manufacturing Impact

A critical step towards sustainable production involves minimizing the environmental impact of the manufacturing process. Bürkle employs various measures, including transitioning to energy-efficient production models and employing a modern heating system. For example, the heating

system is fed from a deep well through a heat exchanger, with process heat being recirculated.

Additionally, smaller measures within the value creation process contribute to achieving overarching goals. An example of such measures is the internal reuse of cardboard packaging initially used for transporting items to Bürkle. These process optimizations lead to more efficient operations, reducing energy consumption and waste.

My Green Lab assesses practices and initiatives at production sites that contribute to reducing environmental impacts, rating them on a scale of 1 to 10.

- 1** indicates that the manufacturer has processes and policies in place to mitigate the risk of exposure to hazardous chemicals and can verify the absence of hazardous chemicals.
- 3** indicates that the manufacturer has achieved reductions in the majority of the impact categories.
- 6** indicates that the manufacturer has achieved only minimal reductions in the impact categories.
- 10** indicates that the manufacturer does not have processes and policies in place to mitigate the risk of exposure to hazardous chemicals and cannot verify the absence of hazardous chemicals.

Use of Renewable Energies

The utilization of renewable energies is another crucial step towards sustainability. Bürkle has firmly integrated this approach into its production strategy. All products are manufactured at the Bad Bellingen production site, exclusively relying on renewable energies. Bürkle combines the purchase of green electricity with a company-owned photovoltaic system.

With over 1240 hours of annual sunshine, Bürkle's 1000 m² of solar modules on its company building's roof in Bad Bellingen helps reduce annual CO₂ emissions by over 136 tonnes. By combining green electricity (100% hydroelectric power from the High Rhine) and self-generated electricity, Bürkle achieves 100% emission-free electricity consumption. This demonstrates the feasibility of resource-saving production.

My Green Lab evaluates this factor with a "YES" if a corresponding green electricity contract exists for the company location.

- YES** indicates that the manufacturing facility that produces the product utilizing renewable energy.
- NO** indicates that the manufacturing facility that produces the product does not utilize renewable energy.

Responsible Shipping

Shipping products can significantly impact the environment. Bürkle demonstrates considerate action in this regard. The development, production, and distribution of Bürkle Bio-PE samplers all take place at the same location in Germany. This setup enables short transport routes within the European market and eliminates the need for cargo planes, leading to reduced CO₂ emissions.

My Green Lab's Shipping Impact assessment evaluates product transportation from the production place (e.g., Germany) to the destination (e.g., USA). The concept focuses on shorter shipping distances and applies to many products, also considering the type of transport.

Lifetime of Product and Packaging

The fact that Bürkle Bio-PE samplers are disposable products contradicts the desired longevity and sustainability associated with Bürkle's high-quality products. Sterile items, for instance, have a limited shelf life of two years from their manufacturing date. In line with the transparency principle of the ACT label, this limitation is evident in the rating and is unavoidable in this product category.

Sustainable Raw Materials

Bürkle adopts innovative approaches when selecting materials for its products. The LaboPlast® and SteriPlast® organic disposable samplers are made from organic PE derived from sugar cane. This choice constitutes a more sustainable alternative to fossil raw materials like petroleum. The bio-PE content, amounting to at least 94%, significantly surpasses the industry average.

Innovation

In addition to the aforementioned categories, Bürkle goes beyond and actively participates in various programs aimed at reducing CO₂ emissions. These include the GLS Climate Programme and forest conservation projects, which have already offset an impressive 17.339 tonnes of CO₂. The company is also certified as climate-neutral.

With this factor, My Green Lab encourages companies to make sustainable commitments that extend beyond the previously mentioned categories.

- 1** indicates that the manufacturer achieved the innovation credit. Credit will only be listed on the ACT label if awarded.



www.buerkle.de

BÜRKLE MAGAZINE

Summary

Overall, Bürkle proves with its Bio-PE range that sustainability in the industry is more than just a buzzword and that even disposable products can have sustainable aspects. From production to shipping, the company is committed to acting in an environmentally conscious way. This example shows how a holistic approach to sustainability can be successfully implemented.

My Green Lab's View of Bürkle

"ACT promotes a life cycle approach to product sustainability, so I am pleased to see wider efforts to reduce product impact reflected in Buerkle's first ACT labels. Their efforts and achievements show that more sustainable products are viable whatever the size of the company."

We look forward to working further with Buerkle in the coming years, as we all collaborate to drive down supply chain impact in science."

RAJ PATEY, BUSINESS DEVELOPMENT DIRECTOR, MY GREEN LAB

For more information on the ACT label, visit
act.mygreenlab.org

Bürkle Magazine

buerkle.de/en/knowhow/
buerkle-magazine

Bürkle GmbH

Rheinauen 5 | 79415 Bad Bellingen
Phone 07635/82795-0 | Fax 07635/82795-31
info@buerkle.de | www.buerkle.de

Social Media

facebook.com/buerkle.de | twitter.com/buerklegmbh
linkedin.com/company/buerkle-gmbh
instagram.com/buerklegmbh | buerkle.de/videos
