

PureLink Quick Gel Extraction Kit



Introduction

We are committed to designing products with the environment in mind. This fact sheet provides the rationale behind the environmental claims that this product is now less hazardous than its preceding product and is responsibly packaged. The gel solubilization buffer component in the Invitrogen™ PureLink™ Quick Gel Extraction Kit has been reformulated to be less hazardous. With this change, the product is safer for the end user, no longer needs to be shipped as dangerous goods per international transport classifications, and requires less packaging, which means less waste in the lab. Using less packaging also translates to utilizing fewer resources, generating less waste, and emitting less greenhouse gas during transit.

Product description

The PureLink Quick Gel Extraction Kit is designed to purify DNA fragments directly from agarose gels, using a silica-based resin free of proteins, dye, and agarose.

Green features

Less hazardous

Applying the principles of green chemistry [1], the oxidative property of the gel solubilization buffer component of the PureLink Quick Gel Extraction Kit was eliminated. The current formulation is less hazardous, allowing the product to be more safely handled and disposed of. It is now shipped as nonhazardous for transport.

Please see the MSDS representing the new formulation at thermofisher.com/documents.

Responsibly packaged

To meet regulatory obligations to ensure the safe delivery of products, the previous formulation of the PureLink Quick Gel Extraction Kit required the kit to be surrounded by absorbent packing material within a rigid outer container (e.g., a metal can), and placed into a heavy-walled corrugate box. With the application of principles of green chemistry [1] to devise a less hazardous formulation, the product is no longer regulated for transport. This has allowed for reduction of the outer packaging by 78% (Table 1). This means less waste in the lab, and since the product is now shipped in a standard cardboard box, the packaging material is fully recyclable. Eliminating the excess packaging also improved the freight density of this product (Table 2), thereby reducing fuel consumption and greenhouse gas emissions associated with transport.

Table 1. Reduction of packaging weight for the PureLink Quick Gel Extraction Kit.

	Total waste generated per 2 years
Total packaging before reformulation (lb.)	1.64
Total packaging today (lb.)	0.36
Net reduction	78%

Table 2. Improvement in freight density with elimination of excess packaging.

	Cat. No. K210012	Cat. No. K210025
Packaging before reformulation (cu. in.)	686	3,844
Packaging today (cu. in.)	420	3,188
Freight density improvement	39%	17%

Reference

1. Anastas P, Warner J (1998) Green Chemistry: Theory and Practice. New York: Oxford University Press.

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