



Modern Kosher Glycerin

One of the foundations of kosher supervision in modern times is a thorough understanding of manufacturing procedures and production methods. OU Kosher rabbis not only possess deep knowledge of how to apply Jewish law to the products they supervise, but they also make it their responsibility to understand precisely how those products are manufactured.

This often requires mastering complex technical processes that demand advanced education and specialized training. As a result, OU Kosher rabbis are skilled at identifying appropriate processes and adaptations that enable companies to benefit from the added value of marketing their

products as kosher-certified. As new technologies continue to emerge, it is essential for kosher supervisors to stay informed and knowledgeable.

It is equally important that kashrut-related questions be directed to individuals with sufficient expertise in the relevant manufacturing processes. A clear understanding of these procedures is critical not only for effective supervision, but also to enable *Poskim* to render accurate and reliable halachic rulings.

BIODIESEL GLYCERIN

One of the most innovative developments of 21st-century technology is biodiesel. Simply stated, biodiesel is an alternative fuel designed to replace conventional diesel fuel. One particularly fascinating application of biodiesel is its use in aviation fuel. Many commercial airlines have committed to using SAF (Sustainable Aviation Fuel), in which biodiesel plays a significant role.

While traditional diesel fuel (also known as petro-diesel) is derived from petroleum, biodiesel is nontoxic, biodegradable, and produced from what are known as biomass oils. Biodiesel is manufactured through a process called transesterification, which converts fats and oils into biodiesel and glycerin. This process involves adding methanol to fatty acids that have been separated from oils, along with a catalyst. After refining, approximately one-tenth of a liter of glycerin is produced for every liter of biodiesel.

The biomass oils used for biodiesel can originate from plant-based sources such as





soybean, canola, and corn oil. Animal fats are generally less common in biodiesel production, which might suggest that glycerin certification should be straightforward. However, another factor must be considered: the versatility of biodiesel refineries. These facilities can process a wide range of feedstocks, including waste products and even algae. This is where UCO—used cooking oil—becomes relevant.

Used cooking oil is collected as a form of waste recycling. In North America and many other countries, the fast-food industry is extremely widespread. These establishments use large quantities of vegetable oil to prepare a wide range of foods, including fish, meat, dairy, and *treif* products. Rather than discarding the used oil, it is often sold to biodiesel refineries for the production of biodiesel and glycerin.

From a kosher perspective, this presents a serious concern. Since these fast-food establishments are not kosher, the oil absorbs non-kosher substances, including, in some cases, *Basar B'chalav* (the biblical prohibition of mixing meat and milk). Consequently, OU Kosher considers UCO to be 100% *treif*. For this reason, OU Kosher does not permit the use of UCO in the production of glycerin intended for kosher certification within the biodiesel process—another important safeguard in helping Klal Yisrael maintain kosher standards.

LAUNDRY-GRADE KOSHER GLYCERIN

As mentioned in previous articles, glycerin

is a common ingredient in soaps, detergents, and cleaning products. The OU certifies certain glycerin and fatty acids for detergent use only. This is because OU Kosher does not certify detergents or cleansers simply on the basis that they are inedible. Rather, the standard for OU certification of detergents and cleansers is that there be no actual non-kosher substance present in the certified product.

Accordingly, the glycerin used must be a vegetable glycerin that is certified as “Kosher certified for non-food use only.” This designation indicates that the product is a pure vegetable glycerin that was produced on equipment (*keilim*) previously used for *treif*. Although these *keilim* were flushed to the extent that there is no actual non-kosher residue present in the laundry-grade product, they were not koshered.

As a result, this glycerin may not be stored or transported in food-grade kosher tanks or carriers without subsequent kosherization. This distinction ensures that kosher food production remains uncompromised while still allowing for appropriate certification of non-food products. ■

Kashrut Questions in Israel?

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רפואה שלמה

Peleg Shabtai ben Chaviva Leah