

Project: Akzo Nobel

Subject: Antimony-free PET

(1997) High Performing PET Catalyst Makes Healthy PET Bottles and Textiles

PET (polyethylene terephthalate) is a plastic used in countless everyday products, from food and beverage containers to polyester fibers for clothing.

Akzo Nobel developed a new catalyst for PET production, which is safer for humans and the environment. Based in The Netherlands, Akzo Nobel produces health care products, coatings and chemicals. Their new PET catalyst is called C94. It can be substituted in many applications for the more commonly used antimony-based catalyst, which is a proven carcinogen, and it is 6 to 8 times more efficient. This new catalyst can also be used to produce other commonly-used plastics, as well.

In 1997, EPEA evaluated the human health risks and environmental risks associated with Akzo Nobel's new catalyst. EPEA has an extensive database of information about commonly-used chemicals and their effects on human health and the environment. Using their library of information about widely-used chemicals and their methods for chemical assessment, EPEA investigated the risks associated with Akzo Nobel's C94 catalyst.

To accurately assess C94, it was necessary to investigate health and environmental hazards along the entire lifecycle of the new catalyst. The lifecycle of C94 begins with the extraction of raw materials, includes the production of PET, and ends with the land-filling, incineration or recycling of the PET material.

EPEA found that C94 is likely to be non-toxic for humans and the environment. Food and beverage containers made from this PET would safely hold their contents, and the material would be nontoxic for landfilling or incineration. EPEA also found that if the material were recycled, it would result in cleaner, safer recycled material than PET made with the antimony-based catalyst.

Akzo Nobel

<http://www.akzonobel.com>

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