

# Safer Solvents

Lyondell Chemical Company paints the industry green

If you ask people to list institutions that have done a lot for the environment, they might not think of the petrochemical industry, but they'd be overlooking significant contributions from some major chemical producers. Lyondell Chemical Company is a case in point.

Lyondell is one of the world's 10 largest chemical manufacturers, with 2006 revenues of \$20.9 billion, and for over two decades it has been bringing environmentally safer products to market. Formed in 1985, it began its corporate life as a refining asset of Atlantic Richfield (also known as ARCO), one of the largest petroleum companies in the U.S., but spun off into a separate company and grew very rapidly through acquisition.

Lyondell produces the raw materials that are used to make a broad array of household and industrial goods, ranging from food packaging to automotive parts and products, housewares, pharmaceuticals, personal care products and textiles. Paint and coating raw materials make up a relatively small part of Lyondell's operations, but, says Lyondell Technical Advisor Daniel Pourreau, "Though it's relatively small to us, it's significant to the coatings industry overall, mainly in solvents."

"Our involvement in the coatings industry started back in the early 1990s with the introduction of a line of propylene glycol ethers to replace products based on ethylene glycol," says Pourreau, adding that several ethylene glycol ethers are officially listed by the U.S. Environmental Protection Agency (EPA) as Hazardous Air Pollutants (HAP). "Our entry into the coatings market had a green flavour to begin with; already in the '90s we were focused on environmentally safer products."

Lyondell introduced solvents for both water- and solvent-based paints and cleaners. However, Pourreau explains, it was difficult in the beginning to interest customers in the new

line of products. "E-Series products were very well entrenched, so it was a bit of a struggle to gain market acceptance. We were practicing green chemistry a couple of decades before it became a buzzword."

After this first foray into green chemicals, Lyondell moved on to a new area. "Our most

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