## SAYONARA, POLYSTYRENE

Cities ban FOOD AND BEVERAGE CONTAINERS made with the plastic foam CHERYL HOGUE, C&EN WASHINGTON

**FROM SEATTLE** to San Clemente, Calif., scores of cities on the West Coast have nixed the use of polystyrene foam coffee cups and hinged carryout containers within their boundaries. They cite environmental concerns as the key motive for their ac-

tion. Polystyrene doesn't biodegrade, often ends up as unsightly litter in waterways, contributes to plastic pollution in oceans, and is difficult to recycle if contaminated with food. This trend of banning

**DEBRIS** Polystyrene cups and other plastic items often wash up along a beach in Santa Monica, Calif., near a storm drain after rainstorms.

food and beverage containers made of polystyrene is spreading. Last month, New York City adopted a law that could lead to a ban of these food service items as of 2015. Boston, Chicago, and Washington, D.C., are among other cities considering prohibitions on these ubiquitous plastic items.

Chemical makers are fighting back, saying the bans sock restaurants, consumers, and taxpayers in the pocketbook. The Plastics Foodservice Packaging Group, part of the chemical industry association American Chemistry Council (ACC), argues that the plastic foam insulates better, keeps food fresher longer, and costs less than coated paperboard containers, the leading alternative to polystyrene items.

Municipal bans on polystyrene foam aren't new. A handful of smaller cities banned food containers made with polystyrene foam in the late 1980s and early 1990s. Back then, a major concern was that the material was blown into foam with chlorofluorocarbons, which deplete stratospheric ozone. Years ago, foam product manufacturers addressed the concern by switching to hydrocarbon expansion agents, primarily pentane, according to ACC. These chemicals don't harm the ozone layer.

After the switch, local action against polystyrene food service containers died down for more than a decade. But in recent years, a growing number of cities, towns, and counties, mainly in California, have barred the use of polystyrene food and beverage items. More than 70 jurisdictions in the Golden State now have bans, according to Californians Against Waste, an environmental group



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## This trend of banning food and beverage containers made of polystyrene is spreading.

that has supported legislation aimed at such prohibitions in the state.

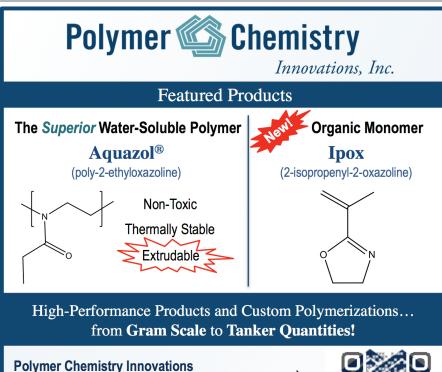
ACC, meanwhile, is working hard to convince localities, including New York City, that polystyrene food containers shouldn't be banned because they can be recycled. A study ACC commissioned finds that half of the population in the 50 largest cities in California has access to recycling of polystyrene foam, including food service items. Only 16% of the U.S. population has access to such recycling, the study notes.

**BUT MOST POLYSTYRENE** collected in curbside recycling programs in California gets diverted to landfills, says Miriam Gordon, state director for the environmental group Clean Water Action California.

That's because recyclers of polystyrene foam generally accept only clean, dry materials, such as those used to package electronic equipment or appliances for shipping. In contrast, food contamination needs to be cleaned from foam containers to render the plastic recyclable, say Gordon and Sue Vang, a policy associate at Californians Against Waste.

If recyclers do the cleaning, this process can cost more than they can recoup by selling the reclaimed material, Vang says. Alternatively, governments or institutions such as schools that use the foam containers would have to clean them—and absorb the cost of doing so—before recyclers will accept the materials, Gordon adds.

ACC also argues that prohibitions on polystyrene foam containers jack up costs. A study done on ACC's behalf predicts that



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a New York City ban would collectively impose tens of millions of dollars in annual costs on restaurants, vendors, and the city itself, which serves food at jails and schools on items made of polystyrene foam. The financial projections in the study didn't stop the city from adopting its law in December 2013.

But that legislation, which is intended to reduce foam containers' contribution to the city's garbage, doesn't guarantee that New York City will get rid of them. That's because the law includes a provision sought by the chemical industry.

The provision requires the city's sanitation commissioner to determine by the end of 2014 whether polystyrene food containers can be recycled in an "environmentally effective, economically feasible" way that is safe for workers who collect and sort recyclable materials. Before making this decision, the commissioner must consult with producers and recyclers of expanded polystyrene as well as with the contractor who handles plastic recycling for the city.

If the sanitation commissioner determines that these food containers can be recycled, a ban would not occur. Instead, New York City would come up with a plan for collecting the plastic foam products for recycling. But if recycling is not possible, a polystyrene ban will take effect in 2015.

ACC expressed confidence that New York City will end up allowing continued use of food and beverage containers made of polystyrene. "Recycling polystyrene foam in New York will help reduce the city's waste stream, create a new source of revenue for the city, and limit the burden a ban would have placed on small businesses," the industry group says.

Should the city have to implement the ban, the law would also prohibit the sale of another popular polystyrene product peanut-shaped packing materials.

A market of more than 8 million residents and plenty of tourists is at stake in the Big Apple. This is likely to motivate producers of polystyrene service items, who oppose the ban, and proponents of it, including environmentalists and makers of paper food containers, to sharpen their arguments this year.

Whatever course of action New York takes will likely sway other cities to follow suit. ■