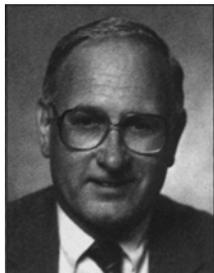


will reinforce tendencies toward more harmony and standardization, and it also will entail more opportunities for a more efficient economy of scale; and (e) despite increasing standardization, there will be no such as thing as "the uniform European conduct" in the future.

## 2.2 Soaps and Detergents: North American Trends



**Theodore E. Brenner**  
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The United States and Canada produce and consume about one-fourth of the world supply of soaps, detergents and other cleaning agents. Demand appears steady although demographic and social trends have reduced the priority consumers place on cleaning and laundering in the United States. Products are more efficient, multifunctional and convenient to use, with a strong trend toward liquids in categories traditionally dominated by powders or solids. Surfactant consumption in household laundry detergents has increased markedly due to the popularity of liquids and the use of cationics as fabric softeners. Sophisticated technologies are resulting in product reformulations and significant innovations. Detergent phosphates remain a regulatory focus, but new environmental and safety issues are emerging with varying direct and indirect impacts on cleaning products.

## 2.3 Detergents in Latin America



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The consumption of laundry products in Latin America is equivalent to that of the United States and has remained stable over the years. Anionic surfactant-based laundry powders and tallow soap-based laundry bars are the two major product forms found in Latin American homes. From country to country, significant differences exist regarding the prevalence of laundry bars and laundry powders in the market, depending on consumer habits and practices and the incidence of washing machine ownership. These differences are discussed in relation to their influence on the detergent industry. The various economies, cultures, washing habits and governmental regulations of each region determine how the detergent manufacturer applies current or developing technologies to the design of laundry detergent products. The effects of these factors on business trends throughout Latin

America are compared and contrasted to those for the United States and Europe.

## 2.4 The Detergent Industry in China and Its Prospective Development



**Qin Yong Geng**  
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Household detergents first appeared on the Chinese market in 1959 when China's detergent industry was just in its embryonic stage. The acceleration of its development is reflected in the increasing output obtained each year during the past two decades. The yield and variety of detergents and the situation of assorted products in the market were reported in the census of 1985. In recent years, a great variety of new types of detergent has emerged, including not only the porous granular detergent powders with improved performance but other powder-form products as well, such as superconcentrated powder with enzymes and oxidizing agents added. There is also a rapid development of liquid detergents for household use and hard surface cleaning. Softeners gradually are taking hold in the marketplace. Major changes in consumer habits during the past few years have resulted in increased use of synthetic fabrics. The dramatic trend toward household electrification created a great demand for washing machines not only in the big cities, but in the towns and some rural areas as well. Flourishing tourism and a higher standard of living essentially provide a significant opportunity for further development of the detergent industry. China's supply of raw materials gradually is growing and forming a complete system so as to meet the needs for a great variety of detergents. LAB capacity is growing rapidly. Despite the fact that there is a certain amount of fatty alcohol manufactured, it is used in small quantities for detergents because of its relatively high cost; most fatty alcohols are used in toothpaste production as foaming agents. A synthetic alcohol plant is under construction. The capacity for ethylene production is quite large in China, but it is used primarily in polyester fabrics and plastics. At the moment, most raw materials for nonionic surfactants are only newly developed. However, China has a full supply of inorganic builders such as SC, SP and SS; other agents such as optical brighteners and fragrances also can be supplied domestically. China is a country of vast territory and numerous rivers. Thus, the average per capita consumption of detergent is not high enough to induce serious eutrophication problems ascribed to the effect of phosphate. However, some research institutes and factories already have undertaken studies on substitutes for STPP, and zeolite has been substituted for some of the STPP in detergents now available in the marketplace. A systematic investigation on the problem of environmental pollution spurred by articles published in other countries, such as "The Mutagenicity of Malformation," led to a