



## The Campaign Against Vinyl — The Facts

A Division of The Society of The Plastics Industry, Inc.

In recent years, certain environmental groups have pushed for the elimination of various chlorine-containing products, claiming that their manufacture represents a threat to human health and the environment. But the evidence these groups present to support their campaign against chlorine rely either on bad science or emotional rhetoric.

One product singled out for attack is PVC (polyvinyl chloride, or vinyl), the world's second largest selling plastic material. What's vinyl's crime? Apparently, nothing more than its use of chlorine as a feedstock. In fact, Greenpeace has admitted in public meetings that vinyl is merely a piece in its "chess game" against the entire petrochemical industry.

One result of this chess game campaign can be seen in the April 1992 report issued by the International Joint Commission of the United States and Canada. That report, the IJC's sixth biennial report on Great Lakes water quality, deals with those lake contaminants known as persistent toxic substances. However, one of the specific recommendations in the report (Recommendation Seven) suggests that the IJC develop timetables to sunset the use of chlorine and chlorine-containing compounds used as industrial feedstocks. Vinyl is the largest such use for chlorine and is *not* a persistent toxic substance.

### **Why the vinyl industry vigorously objects to the IJC's recommendations, especially Recommendation Seven:**

- The report treats all chemicals within a class the same, regardless of the safe performance history of individual products within the class. Vinyl is one of those products with a demonstrated record of safe production and use.
- The report acknowledges, but deliberately chooses to ignore, that harmful effects *have not* been established for many of the substances it examines. Vinyl is one of those substances for which the IJC does not establish, with any scientific validity, harmful effects.
- The report erroneously concludes that chlorine-based manufacturing is an uncontrollable process and that the environmental impact of that process is unknown and unpredictable. To the contrary, the manufacture of vinyl chloride and polyvinyl chloride is a sophisticated and well-understood process that is entirely predictable and controllable. All of the by-products are known and quantifiable.

In fact, one independent consultant, ICF Incorporated, characterized Recommendation Seven as "overly broad and not supported by analysis of risk and costs, including net environmental costs."

*In essence, through business and payroll taxes, the vinyl industry is being forced to underwrite an effort that will put it out of business — without justification!*

### **More facts about vinyl's environmental performance:**

- The overall vinyl production process has a 99+ percent conversion rate. By-products are either contained, neutralized, recycled or incinerated, or disposed of in an environmentally approved manner.

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- Vinyl is a highly efficient user of energy and feedstocks. For instance, it takes about half the energy to make PVC sewer pipe as it does to make other plastic pipe, and about a third the amount it takes to make cast iron pipe. In its 1992 lifecycle comparison of various packaging materials, Chem Systems found vinyl to be the material with "the lowest production energy and carbon dioxide emissions, and the lowest fossil fuel and raw material requirements of the plastics studied."
- Vinyl chloride, the raw material used to make vinyl plastics, is one of the most studied and carefully regulated chemical substances in use today. There are strict controls in place to measure and limit all environmental emissions. Those controls, along with voluntary efforts undertaken by industry, have virtually eliminated any health hazards to workers and plant-site communities.
- Since the 1970s, the industry has reduced its VCM emissions in the U.S. more than 95%.

#### **What are the consequences of eliminating the production and use of vinyl?**

In April 1993, the consulting firm of Charles River Associates, Boston, looked at the cost to replace vinyl with alternative materials in fourteen major applications and markets. The study calculated the amount of material needed to maintain the same market share currently held by vinyl in each application. It also estimated, where appropriate, the capital cost to build new capacity or convert existing capacity to produce that material or fabricate end-products from it, and considered any incremental or additional costs to install the material compared to the current cost to install the vinyl product.

*The study found that the cost to replace vinyl in these markets would require an additional investment of \$974 million in new equipment and cost consumers \$6.7 billion more per year to purchase substitute materials.*

The vinyl industry contributes \$4 billion to the U.S. economy each year and operates 1,008 plants in the Great Lakes states alone, where approximately 60% of its employment is concentrated. Eliminating vinyl would shut down this business, and have serious implications for customers in hundreds of markets, including health care, communications, aerospace, automotive, retailing, textiles, construction, durable goods and agriculture.

*Even more important are the societal benefits at risk by eliminating the use of vinyl. A few examples:*

- Pipe made from it economically delivers pure water to places that have never had this basic necessity; PVC irrigation pipe helps increase crop yields, and studies have shown that PVC pipe is less expensive to install and maintain than competitive materials.
- Medical goods and pharmaceutical packaging made from vinyl help provide a higher, safer standard of health care.
- Wiring made from it makes electrical service safer and more dependable.
- Construction products made from it make housing more affordable.
- Packaging made from it reduces food spoilage and waste, and helps package designers create innovative "downsized" packaging that reduces landfill waste.

#### **The Industry's position**

The vinyl industry is proud of its environmental performance and welcomes an examination of its record. Any such review, however, should be based on sound science and conducted in the public interest. The current campaign against vinyl does neither and does society a misservice by potentially restricting the use of products that have demonstrated their value for years.