

**Polystyrene Foam  
and  
Our Environment**

We are all concerned about protecting the environment. Today, solid waste management issues are gaining more and more attention, and plastics are an important part of those issues.

You may be wondering how some common plastic products affect the environment. In fact, you may have questions about plastics in general – the different types and their effect on the environment.

The people at Dow are trying to help ensure that future generations can continue using our products in a world that's safe and clean. The following information should answer some of your questions about plastics – more specifically – about the type of plastic known as polystyrene foam.

## **What is polystyrene foam?**

Polystyrene is a lightweight plastic composed of hydrogen and carbon atoms. Common polystyrene foam products include food service items such as cups, bowls, plates, utensils, lunch trays and loose-fill packaging peanuts. Polystyrene is a safe, sanitary, energy-efficient and convenient packaging material that meets strict federal Food and Drug Administration guidelines for food contact applications.

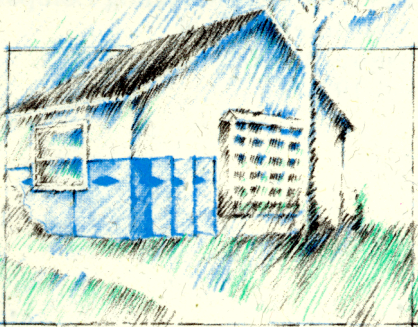
Polystyrene foam is often confused with STYROFOAM\*, a registered trademark of The Dow Chemical Company.

While all STYROFOAM brand products are polystyrene, there are many polystyrene products that are not STYROFOAM brand products.

\*Trademark of The Dow Chemical Company

STYROFOAM refers to a line of extruded polystyrene products manufactured exclusively by Dow. These products are primarily Blue\* in color and are used as building insulation in the construction industry, as flotation in rafts and docks, and as a basic material for crafts and floral arrangements.

STYROFOAM brand products are NOT used to produce food service packaging items such as cups, plates, meat trays, clamshells, egg cartons, coolers or other such packaging materials.



*This house is being insulated with STYROFOAM brand insulation.*

## **Does STYROFOAM Brand Insulation contain CFCs?**

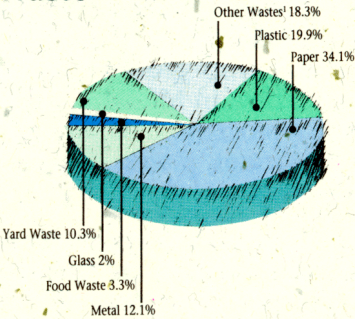
Fully-halogenated chlorofluorocarbons (CFCs) are not used in the production of STYROFOAM brand products. They are manufactured with HCFC blowing agents, which have ozone depletion potentials over 90 percent lower than standard CFC blowing agents.

Research is continually under way to refine and improve all STYROFOAM brand products, and we continue to aggressively seek and fund multi-million dollar research that will lead to an even better blowing agent replacement relative to the environment.

## How much space does polystyrene foam take up in our landfills?

The percentage of polystyrene foam products in our landfills is estimated at only .5 percent. In fact, all plastics, including parts in TV sets and refrigerators, constitute only 19.9 percent of the municipal solid waste by volume, as shown in the pie chart.

## Volume of Materials in Municipal Solid Waste



Source: Franklin Associates, Ltd., February 1990

<sup>1</sup>Other includes wood, apparel and many other miscellaneous materials.


## Does polystyrene foam degrade in landfills?

Like other materials, plastic foam products do not degrade in landfills, but degradability isn't the answer to our solid waste crisis. Researchers have found that nothing degrades quickly in landfills, which are designed to eliminate air, sunlight and moisture, the three things most needed for degradation. Even newspapers and food, such as steaks, hot dogs, and carrots, remain relatively unchanged in a landfill for more than a decade.

## **Can polystyrene foam be recycled?**

Yes. Polystyrene foam products, including foam insulation, packaging materials and food service containers, are being recycled today. Eight chemical companies, including Dow, formed the National Polystyrene Recycling Company, whose goal is to recycle 25 percent – or 250 million pounds – of disposable polystyrene food service products annually by 1995.

The most efficient way to recover plastic foam products is to collect it at schools, hospitals and institutions that use a large quantity of polystyrene. For example, Dow recently helped employees, community groups and schools near its headquarters in Midland, Michigan, get involved in a program to recycle polystyrene lunch trays, cups, plates, utensils and packaging materials.

As part of a national coding system for plastics, polystyrene foam products are labeled with a  to aid collection, separation and recycling efforts.

## **What can be made from recycled polystyrene?**

Some of the products that can be made from recycled polystyrene include egg cartons, insulation, clothes hangers, videocassette housings, durable office products, toys and pens. Research continues to develop new applications for recycled polystyrene.

*For further information, contact:*

The Dow Chemical Company  
2020 Dow Center  
Midland, MI 48674  
1-800-441-4369

Polystyrene Packaging Council  
1025 Connecticut Ave., NW, Suite 508  
Washington, DC 20005  
(202) 371-5200

National Polystyrene Recycling Company  
25 Tri-State International  
Lincolnshire, IL 60069  
(708) 945-1991



***Dow Plastics.***

*We don't succeed unless you do.*

\*Trademark of The Dow Chemical Company  
Dow Plastics is a business group of The Dow Chemical Company.

Printed on Recycled and Recyclable Paper.  
Printed in U.S.A. Form No. 179-00147-892 SMG