# RECYCLIN

What is a Steel Can?

Children still loveplaying the old favorite, "tel ephone." The telephone game doesn't require an expensive purchase at the toy store; all it takes is a playmate, a length of twine and two cans.

Those telephone receivers, which might have previously contained chicken noodle soup, diced carrots, ground coffee, fruit salad or tomato sauce, are made from steel.

Steel cans have been a mainstay of grocery stores, kitchen cabinets–and children's toy boxes–for generations.

The tinned steel can–a steel can with a thin, protective tin coating on the surface–has been used in food packaging since the early 1800s. Steel (or "tin") cans were first developed in England and were quickly adopted as a favorite package for food and beverages.

Now, after nearly 200 years, more than 92 percent of all metal food containers sold in the United States are made from steel, attesting to steel's strength, safety, and convenience in packaging. Americans use more than 100 million steel cans every day, providing a veritable cornucopia of healthy and delicious foods for family dinners, restaurant meals, and school cafeteria lunches.

Most metal juice containers are also made from steel. And, increasingly, steel cans are being used for packaging carbonated beverages. Steel beverage cans–often called "–are actually made from two metals: a tinned steel body with an aluminum top.

Steel is important in packaging other, non-food products, too. Paint, aerosol sprays, cleaning and building products and even Russian blue jeans are new sold in convenient, tamper-resistant, low cost steel cans.

It's a snap to differentiate steel cans from other types of metal containers. Steel is ferrous and has magnetic properties; just sweeping a strong magnet over mixed waste will separate the steel cans from aluminum, other non-ferrous materials, and anything else that would be found in a community's trash.

Steel's unique magnetic property, its durability, and its convenience make steel cans the packaging choice for all kinds of goods.

But today, it's not enough for a package to succeed only at protecting its contents. Packaging decisions are being based, in part, on the environmental consequences of the production, use and disposal of various materials.

### *Choosing Environmental Stewardship*

More and more, Americans are recognizing environmental resources for what they are: limited. Our society is more concerned about the environment today than ever, and rightfully so.

We are understanding the value of wide open spaces, fresh air, clean water, minerals and other natural resources. We know that demonstrating responsible stewardship over these resources is the most precious gift we can offer our children and future generations. Many of our planet's resources can be harnessed and put to work, but the answer to one question is becoming increasingly important: What price are we prepared to pay for using Earth's natural resources?

For many American communities, *solid waste management* is one of the most salient and pressing issues of the day. How we manage our trash has profound implications on the allocation of limited natural resources. Acceptable and appropriate landfill space is declining. And, while recycling allows for the reuse of many natural resources, not all materials are equally recyclable.

Where will all of our trash go?

Environmental stewardship means taking responsibility for the natural resources we inherit from our ancestors, recognizing that we are borrowing from our children.

It comes down to making choices–taking into consideration the environmental impact of many routine activities:

- Carpooling to work rather than driving alone;
- Discarding household hazardous materials in an environmentally benign way;
- Composting yard and organic food wastes into natural garden fertilizers; and
- Reusing and recycling whatever possible.

It comes down to prioritizing community needs and environmental concerns:

- Developing a comprehensive solid waste management program for the community;
- Making collection for recycling convenient and accessible to all residents, institutions and businesses;

encouraging the wide-spread use of recyclable and recycled products; and

- Promoting the use of those products that are the most environmentally compatible.

Environmental stewardship means making choices about the kinds of goods you purchase and use–at home and in the workplace–taking into consideration the ultimate disposal of those products.

### *Steel: Unsurpassed Environmental Compatibility*

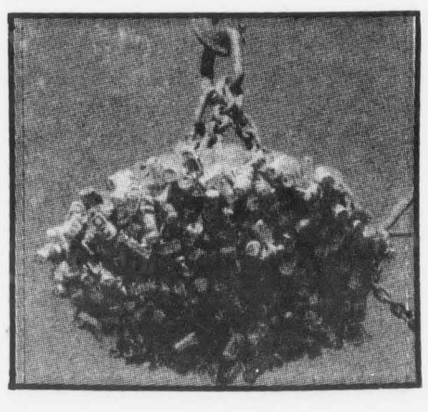
When it comes to the environment, steel cans really stack up in the packaging mix.

Unlike other metal containers, American steel is made from domestic raw materials that are inexpensive and abundant in supply.

Iron ore, coal and limestone, among the most common elements in the Earth's crust, are mined today using environmentally sound methods. it is common practice now for the companies that mine these materials to return the land to its natural state once the mining is completed, planting trees and shrubs, thus providing a home for indigenous wildlife.

Steel can makers have made important contributions in source reduction by reducing the amount of steel required to make a can. Steel cans in the market today are stronger and lighter than ever before, containing an average of one-third less metal than those produced just 15 years ago.

Over the last two decades, American steelmakers have worked diligently to make new steel production more energy-efficient than ever; the energy required to produce a ton of steel today in 34.1 percent less than it was in 1972.



By comparison, the production of a steel can requires approximately half the energy that is required to make a similar sized aluminum can.

Over the last decade, the steel industry has invested billions of dollars in environmental control measures for its mills, resulting in dramatic improvements in air and water quality in the regions where steel mills are located.

As steel can recycling is adopted as part of the solid waste management strategy in communities throughout the nation, the conservation of natural resources continues to grow.

Steel can recycling has tremendous conservation value for our nation. For each ton of steel cans recycled, 2,500 pounds of iron ore, 1,000 pounds of coal and 40 pounds of limestone are saved.

For every pound of steel cans recycled 5,450 British thermal units (Btu's) of energy are conserved–enough to light a 60 watt light bulb for more than 26 hours. And through all of its recycling efforts, the steel industry saves an average of 600 trillion Btu's each year, which could electrically power more than 18 million households for an entire year.

The steel industry's "can-do" attitude is paying big dividends for the environment. And steel can recycling is a shining example of the industry's commitment to environmental stewardship.

### *Steel Can Recycling: Environmental Stewardship and Economic Benefits Meet*

Americans have embraced a new recycling ethic that will result in long range environmental improvements and the conservation of valuable natural resources.

We are in the midst of a recycling revolution.

And as the revolution progresses, steel cans will become an increasingly important and beneficial package. Steel offers ecology in a can.

*The information used in this feature is based on an American company. Here in Canada, similar goals are being projected. A national Task force is aiming at reducing packaging waste in half by the year 2000.*

Already, more then 66 percent of all steel in the United States is recycled into new products; in fact, for more that 50 years, the steel industry has had an annual recycling rate of over 50 percent. Cars, large appliances, machinery, and even demolished buildings provide a constant supply of steel scrap that is used to produce "new" steel. All new steel produced in the United States is, in fact, either25 or 100 percent recycled steel, depending on the type of furnace used in manufacturing.

Steel recycling saves precious land-fill space for non-recyclable materials and allows communities to avoid many costs associated with waste disposal.

Steel has always been 100 percent recyclable. In-plant steel scrap (called "home" scrap) has been recycled right in the mills ever since steel manufacturing began. "Prompt" scrap from steel fabricating processes, such as automobile production and can manufacturing, has been a valuable resource. And steel mills have historically purchased post-consumer steel products for recycling: white goods, cars, tools, and small appliances, to name a few. For decades, scrap has been an integral and essential ingredient in the "recipe" for new steel.

New energy- and resource-efficient technologies employed in the last decade have allowed steel companies to reduce the amount of scrap they generate to just a fraction