

# SPRAY the WORD

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**AND THE WORD IS "EMPTY STEEL AEROSOL CANS ARE VALUABLE STEEL SCRAP." THE STEEL RECYCLING INSTITUTE TELLS THE STORY OF STEEL AEROSOL CAN RECYCLING AND HOW IT CAN BE INCREASED IN LARGE AND SMALL RECYCLING PROGRAMS ALIKE.**

**D**ating back to the Iron Age, for nearly as long as steel has been made, steel scrap has been an essential ingredient in new steel. But, little did early steelmakers know, the need for scrap would drive the development of a vast recycling infrastructure responsible for many of the sustainable advancements of steel and, in fact, making steel North America's top recycled material.

One opportunity for growing the available scrap for the steel industry, while keeping it out of landfills, is the recycling of empty steel aerosol cans. Most large curbside programs today accept empty steel aerosol cans but many rural or lower population areas are lagging behind and for no compelling reason other than sticking with the status quo.

"We have programs that have been maximizing their steel can diversion by including empty steel aerosol cans for over 20 years. All without incident," says David Keeling, general manager of post-consumer steel can recycling advocacy group, Steel Recycling Institute (SRI). "These program managers are simply amazed that all collection programs don't include empty [steel] aerosol cans. They consider it a 'no brainer.'"

## Recycling steel cans

With the help of the SRI, steel food and beverage cans have risen from only 15 percent in 1988 to its highest ever in 2011, 70 percent. Since the infrastructure already exists for recycling all steel cans, empty steel

aerosol cans go right along with the flow of other steel cans in the recycling process with some education and encouragement.

Today, SRI's efforts continue to grow along with the increased needs for scrap. The drive to capture empty steel aerosol cans is reflective of this evolution in recycling. The benefits of recycling empty steel aerosol cans are the same as any steel product: recyclable materials are diverted from landfills; needed steel scrap is more available to the steel industry; and community costs are reduced by the revenue from scrap sales. Furthermore, communities avoid the cost of landfilling the material, part of the overall financial picture. They are both easily and efficiently sorted through magnetic separation and can be baled together immediately. In fact, despite not publicly accepting steel

aerosol cans, some curbside programs are already recycling them in their stream without realizing it.

## The history of aerosol cans

Aerosols have been used for more than 70 years and continue to be popular with people because they are efficient and effective.

Nearly 4 billion steel aerosol cans are manufactured annually in North America, but misconceptions about the recyclability of these cans can be a contentious conversation. Some steel aerosol products aren't in the kitchen where a lot of household recyclables, such as steel food and beverage cans, are generated from. Instead, they are in the bathroom or kept with cleaning supplies, so when they reach the end of their useful lives consumers aren't often near a recycling bin. But the fact is steel aerosol cans, of all kinds, when empty, are the same as any other steel can.

Beginning in 1975, aerosol industry leaders set a new standard by eliminating chlorofluorocarbons (CFCs) from aerosols. This became law in 1978, requiring virtually all aerosol products to be CFC-free. However, a recent Consumer Aerosol Products Council (CAPCO) study shows that nearly 70 percent of Americans still believe that aerosol products harm the ozone. Aerosol can technology, partially due to how long of a history it has, is an advanced and safe packaging method. The contents are mixed and delivered at the appropriate pre-measured flow. The sealed container and valve mechanism are airtight so the product won't become contaminated, leak or spill. They are also tamper-resistant and tamper-evident.

## Calling all cans

When a consumer purchases a steel aerosol can, studies have shown they use this product until it has virtually no product remaining. These cans are not just empty, but very empty. In one study conducted by SRI, the mean combined residual remaining among all of the collected steel aerosol cans was 2.69 percent, – below the 3 percent set by the U.S. Code of Federal Regulations for “empty.” In the study, 7,000 steel aerosol cans of all types – ranging from furniture polishes to pesticides – were collected as part of commingled recyclables over a six-week period. They were processed without incident, using the same magnetic separating methods as already widely accepted for steel food and beverage cans.

It's not just the consumers that need to have fears assuaged about aerosols. Some recycling coordinators and drop-off center managers still feel that accepting steel aerosol cans will add risk to their streams or require additional processes/equipment. Both of these issues are preventing them from increasing their intake and providing their citizens with a more successful program on their behalf.

Unlike other materials that may need to be separated by hand, the addition of steel aerosol cans to a program that already accepts other steel products requires no additional steps. The gain of this valuable steel scrap can happen with better promotion and public approval of the steel aerosol cans. It is estimated that only a third of recycling programs encourage consumers to put their steel aerosol cans in the recycling bin instead of the garbage can.

## Recycling cans curbside

Today, there is an estimated total nearing 8,000 curbside recycling collection programs according to the Steel Recycling Database, operated and maintained by SRI. The steel can recycling rate has also risen nearly 60 percent since 1988.

The database, which contains nearly 36,000 records of recycling programs, is publicly searchable through SRI's website ([recycle-steel.org](http://recycle-steel.org)). These public searches allow visitors to seek out local and regional options based on the product they're looking to recycle.

The database also recently announced the inclusion of steel aerosol cans in the public search. This example emphasizes the continuous push that steel aerosol cans are just as easily recyclable and just as important to be recycled as other steel products.

Many states now have laws requiring cities of a certain size to provide recycling options for their residents. Large cities know that waste reduction and avoiding unnecessary landfill mass is vital to their sustainable growth. Any item that is recyclable, every effort is made to recycle it. This is why, out of the top 100 curbside recycling programs in America, 73 of them officially accept steel aerosol cans. This includes 43 of the top 50 programs, as well. Due to their overwhelming volume and public demand, they have taken the time and research to know that, not only are these products safe to recycle, but it is short-sighted to not allow this valuable steel scrap to reenter the stream.

The process materials recovered from curbside recycling bins is simple. The collected materials go to a materials recovery facility (MRF) where recyclables are loaded on a sorting line. Steel aerosols, like all steel products, are magnetically attracted. Virtually all MRFs have magnetic belts which they use to magnetically separate steel recyclables. This magnetic belt pulls the steel cans out of the line and directs them into a different bin. When steel aerosol cans are included, they are picked up right along with food steel cans and baled together to go off to the steel mill for recycling. These magnetic belts do not distinguish between steel food cans and steel aerosol cans, and neither should the recycling coordinators, as adding steel aerosol cans to the publicized list of accepted materials requires no additional steps for community programs except to divert more.

## Partnering to recover more cans

SRI continues to develop the recycling network of the nation through partnerships with regional grassroots campaigns, professional recycling organizations and collaborating with national programs such as CAPCO. Working together with other like-minded organizations is vital to promote the environmental and economic benefits of recycling all steel products.

CAPCO and SRI have worked together since 1993 to educate consumers and recycling program coordinators, alike, about the recyclability of empty steel aerosol containers. Many common products now feature the prominent Steel: “Please Recycle When Empty” logo to remind consumers of the recyclability of the package and explain how to do it: when empty. Working with manufacturers and product designers to continue using this logo, and to encourage additional companies to begin using it, is one of their high priorities.

Other organizations, such as the Consumer Specialty Products Association (CSPA), the Southern Aerosol Technical Association (SATA) and the Western Aerosol Information Bureau (WAIB), have also partnered with SRI to offer education on steel aerosol cans. SRI and SATA, for example, have co-sponsored Gwinnett Braves minor league baseball games, presented at conferences and participate in several state recycling committees together.

Almost every household has some type of steel aerosol can present. Once their use-