

# **Recycling Steel Shipping Containers**



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#### - Empty steel drums and pails completely

Steel drums and pails package a variety of liquid and solid products. Proper use results in drums and pails routinely being emptied completely so there is no residual product. Empty drums and pails should be recycled or reconditioned for reuse. U.S. EPA 40 CFR 261.7 provides container emptiness standards so that containers previously holding hazardous materials are categorized as non-hazardous when empty.

Drums that formerly held "acute hazardous materials" require additional consideration, including triple rinsing. Whether the drums are to be recycled by a ferrous scrap dealer or reclaimed by reconditioners, the generator of the empty containers should establish a more stringent drip-dry standard for hazardous materials to assure that no problems ensue from the residue. This will also ensure that all drums, in fact, meet emptiness guidelines.



#### Secure reconditioner or scrap dealer relationship

Depending on the quantity and type of drums generated by a facility, services may be contracted from a reconditioner for pick-up. As negotiated, the reconditioner may take the drums at no cost from the generator, charge a fee or pay for the drums. Factors include types of drums, quantity, freight and the local and regional circumstances for the reconditioned drum market. Alternatively, in the case of smaller quantity or single-trip drums or pails, the generator may deliver and sell them to a local ferrous scrap dealer through prior arrangement.

A ferrous scrap dealer may provide pick-up under very high volume circumstances, especially if other scrap is recovered from the same facility. In either case, proper procedures for emptying and preparing drums and pails are essential before a reconditioner or ferrous scrap dealer will accept the lot.



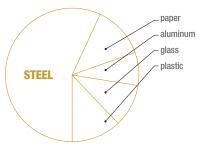
WHEN STEEL DRUMS AND PAILS HAVE OUTLIVED THEIR USEFUL LIVES, THEY CAN BE SHREDDED INTO SCRAP AND RECYCLED INTO NEW STEEL.





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#### **Steel Recycling vs Other Materials**



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#### **Prepare steel drums and pails for shipment**

As drums and pails are emptied through normal use and then positively drained to be drip-dry, they should be accumulated and stored on their side in a designated holding area. Ideally, this will be indoors with suitable ventilation or under a pole shed or other enclosure to provide protection from the elements. Rain water or other contamination of the steel drums and pails cannot be permitted at any time.

U.S. DOT 49 CFR 173 does not require placarding for vehicles transporting empty drums.

The DOT does require uncleaned empty whole drums be shipped a) with "all openings including removable heads and filling and vent holes tightly closed" and b) with the original labels (describing the drum residue) legibly in place. When destined for ferrous scrap recycling, drums or pails may be crushed for transportation economy after being properly emptied. This will also provide visual verification of their emptiness.

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#### Steel has long been North America's most recycled material.

For the steel industry, using old steel products and other forms of ferrous scrap to produce new steel reduces the amount of energy used in the process. Steel scrap is a vital ingredient in making new steel; melting the scrap to make new steel is fundamental to energy and emissions savings and resource conservation. That's why millions of tons of steel scrap are recycled each year. In fact, more steel is recycled than paper, aluminum, glass and plastic combined. As an end result, recycling steel scrap also saves landfill space and natural resources.

# DRUMS THAT FORMERLY HELD "ACUTE HAZARDOUS MATERIALS" REQUIRE ADDITIONAL CONSIDERATION, INCLUDING TRIPLE RINSING.



#### **Environmental benefits**

Steel drums and pails, like other steel products, are a part of the steel industry's massive recycling efforts. When steel drums and pails have outlived their useful lives, they can be shredded into scrap and recycled into new steel. In addition, all new steel made in North America contains recycled steel. Shiny new steel drums and pails may have once been a part of an automobile, refrigerator or soup can. Choosing steel drums and pails means buying and using a product that contains recycled steel. There are many economic and safety reasons to use steel drums and pails, as well as the environmental ones.



#### **About the Steel Recycling Institute**

The Steel Recycling Institute (SRI), a unit of the American Iron and Steel Institute, educates the solid waste management industry, government, business and, ultimately, the consumer about the economic and environmental benefits of recycling steel. SRI works to ensure the continuing development of the steel recycling infrastructure.



