

Greening NIH Laboratories by Recycling Empty Chemical Bottles

Did you know that almost all of your empty glass, aluminum and plastic, chemical bottles in the lab can be recycled? This includes all containers that previously contained chemicals (liquid or solid), buffer and saline solutions, and other miscellaneous products. These bottles can be collected for recycling by contacting the NIH Chemical Waste Services (CWS) Contractor at (301) 496-4710. The CWS Contractor can also deliver plastic totes that may be used to accumulate numerous empties to minimize the number of collection requests. All empty bottles and totes are to be stored in the labs, not in the aisles or in hallways. Empty containers that previously contained infectious or radioactive material will not be accepted and should be disposed according to the [NIH Waste Disposal Guide](#).

Empty chemical containers can only be recycled through the CWS Contractor. They are specially trained in handling and processing hazardous materials. Do not place empty chemical containers in commingled recycling bins or trash cans labeled "Disposable Labware & Broken Glass."

The NIH, along with all other federal agencies, is required to recycle at least 50% of all solid waste by 2015. This excludes construction debris recycling. The NIH is currently recycling 35% or less. Recycling empty laboratory bottles is a great way to green our laboratory operations and help us reach the 50% recycling goal.

Here are some benefits of recycling plastic and glass:

- Recycled plastic can be made into plastic [lumber](#) which is more durable than wood-based lumber*
- Recycling reduces greenhouse gas emissions*
- The plastic can be used to make toys, park benches, car parts, drainage pipes and more*
- Recycled soda bottles can be reused to make filling for pillows and jackets*
- The plastic recycling business creates over 200,000 jobs in the U.S.*
- Recycling one ton of glass saves the equivalent of nine (9) gallons of oil**
- Most bottles and jars contain at least 25% recycled glass**
- Glass never wears out and it can be recycled forever**
- Recycling a glass bottle saves enough energy to light a 100-watt bulb for four hours**

All of the NIH Institutes/Centers have created Green Teams that support a variety of sustainability efforts, including recycling. Go to the NIH Environmental Management System (NEMS) website for more information on the [IC Green Teams and NEMS goals](#) (<http://www.nems.nih.gov/teams/index.cfm>). Please contact the ORF Division of Environmental Protection at (301) 496-7990 if you have any questions about this recycling program.

*<http://www.greenstudentu.com/encyclopedia/recycling/plastic>

** <http://www.oberlin.edu/recycle/facts.html>

NIH Empty Chemical Bottle Recycling Program

Four sizes of totes available for collection of empty chemical bottles which can perfectly occupy the limited storage space in laboratories.

The **largest** size tote is the rectangular 30 gallon capacity with dimensions of 25"Lx20"Wx14"H and weighs 12.3 pounds. It is used mostly to collect the 4 Liters or 1gallon solvent bottles and can perfectly fit or accommodate 8 x 4L bottles. The totes are stackable to fit neatly inside each other. They are also used for chemical waste collection and during lab moves to safely transport chemicals. They are made of high strength, fiberglass reinforced polyester resin that won't bend, wrap or deform under extreme conditions. Historically, these were the original NIH totes with green, gray and red colors and have a 500 pounds carrying capacity.



The **medium** size tote is the green rectangular 20 gallon capacity with dimensions of 19"Lx16"Wx15.5"H and can be used to collect different sized bottles. This tote weighs 3.95 pounds and is made of high-density polyethylene (HDPE) with 100% post-consumer recycled content.



The **small gray rectangular** tote has a 17 gallon capacity with dimensions of 19.5"Lx15.5"Wx13"H and can be used to collect different sized bottles. This tote weighs 4.2 pounds and is molded from tough HDPE to resist rust, corrosion or warping.



The **small green upright** tote has a capacity of 14 gallons and dimensions of 15.25"Lx11"Wx19.9"H. This tote weighs 2.93 pounds and is made of HDPE with 100% post-consumer recycled content. It can be used to collect different sized bottles and is best for labs with limited floor space underneath counter tops.

