

Glass Recycling

(and Mercury Exposure)

Clear Facts

Glass containers are an environmentally superior packaging—nontoxic, high value, and completely recyclable.

100% recyclable

- Glass can be recycled again and again with no loss in quality or purity. Glass containers go from recycling bin to store shelf in as little as 30 days—again and again.
- In 2005, glass made up 5.2% of the municipal solid waste stream by weight, and of that, 25.3% of glass containers were recycled.

The environmental choice

- Made from domestically plentiful, nontoxic raw materials—silica, sand, soda ash, limestone and up to 70% recycled glass—glass is one of the safest packaging materials.
- And, recycling glass reduces consumption of raw materials, extends the life of plant equipment, such as furnaces, and saves energy.

Superior, light-weight packaging

- Today's glass containers are also more than 40% lighter than they were 20 years ago.

This document was taken directly from
<http://www.gpi.org/recycling/faq/>.

Q. HOW ARE GLASS BOTTLES AND JARS MADE?

A. Glass is made from readily-available domestic materials, such as sand, soda ash, limestone and “cullet,” the industry term for furnace-ready scrap glass. The only material used in greater volumes than cullet is sand. These materials are mixed, or “batched,” heated to a temperature of 2600 to 2800 degrees Fahrenheit and molded into the desired shape

Q. HOW DOES RECYCLING FIT INTO THE MANUFACTURING PROCESS?

A. Recycled glass is substituted for up to 70% of raw materials. Manufacturers benefit from recycling in several ways—it reduces emissions and consumption of raw materials, extends the life of plant equipment, such as furnaces, and saves energy.

Q. WHY IS MORE RECYCLED CONTAINER GLASS NEEDED?

A. Because glass manufacturers require high-quality recycled container glass to meet market demands for new glass containers. Cullet is always part of the recipe for glass, and the more that is used, the greater the decrease in energy used in the furnace. This makes using cullet profitable in the long run, lowering costs for glass container manufacturers—and benefiting the environment.

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**Q. WHAT TYPES OF GLASS CAN BE RECYCLED?
WHAT ARE THE INDUSTRY STANDARDS FOR CULLET?**

A. Glass containers, such as those for food and beverages, can be recycled. Other types of glass, like windows, ovenware, Pyrex, crystal, etc. are manufactured through a different process. If these materials are introduced into the manufacturing process, they can cause production problems and defective containers.

Furnace-ready cullet must also be free of contaminants such as metals, ceramics, gravel, stones, etc. Color sorting makes a difference, too. Glass manufacturers are limited in the amount of mixed cullet they can use to manufacture new containers. Separating recycled container glass by color allows the industry to ensure that new bottles match the color standards required by glass container customers.

**Q. IS THERE A WAY TO REUSE GLASS THAT
CONTAINER MANUFACTURERS CAN'T ACCEPT?**

A. Cullet that doesn't meet container manufacturing standards and non-container glass are used in tile, filtration, sand blasting, concrete pavements and parking lots, decorative items, and fiber glass.

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Mercury is a metal. It is the only metal that is liquid at room temperature.

Mercury can be absorbed through the skin.

Because mercury can become a gas at room temperature, you must also be careful not to breathe in the mercury gas.

How to Handle a Small Mercury Spill

Tell a responsible adult.

Do not play with it.

Open windows and doors that vent to the outdoors.

Immediately remove children from the area.

If unsure of what to do at anytime during the spill call the NDEP Spill Reporting Hotline at 888-331-6637.

For all other mercury disposal concerns contact the Recycling Hotline at 1-800-597-5865

Ever wonder where the term "mad as a hatter" came from?

Mercury, was once used in the hat making process. It caused a brain illness in many hatters. Mercury removed fur from pelts to turn it into felt more easily. Hat makers began to experience its effects on their nervous systems. Doctors even recorded seeing "holes the size of quarters" inside some hatters' brains.

Information taken directly from Nevada Division of Environmental Protection's informational brochure about mercury.

Mercury Containing Products

Batteries

Certain alkaline batteries prior to 1998
Button batteries

Measuring Devices

Thermometers
Thermostats
Barometers
Manometers
Certain switches

Lighting

Fluorescent lamps
Mercury vapor lamps
High-pressure sodium lamps
Metal halide lamps & neon lamps
Strobe lights

Dental Amalgam

Mercury is used in dental fillings because it is durable, inexpensive and able to bond with some metals.
Alternative fillings are made of gold, porcelain, ceramic or plastics.

Historical Uses

Certain pigments of latex and oil-based paints pre 1991
Pesticides / fungicides
Felt hat manufacturing

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Vocabulary

Raw Material: According to Merriam-Webster, a raw material is crude or processed material that can be converted by manufacture, processing, or combination into a new and useful product
<wheat...is *raw material* for the flour mill -- C. A. Koepke>

Cullet: Furnace ready scrap glass.

Mercury: An element and a metal. Mercury is the only liquid metal at room temperature. It is toxic to the central nervous system.

Amalgam: According to Merriam-Webster, amalgam is an alloy of mercury with another metal that is solid or liquid at room temperature according to the proportion of mercury present. It is used especially as a dental cavity filling material.