IMERC Fact Sheet
Mercury Use in Products

This Fact Sheet summarizes the use of mercury in products, including switches and relays, dental amalgam, thermostats, lamps, batteries, thermometers and other measuring devices, and chemicals. It presents the total amount of mercury in all products sold in the U.S. in 2001, 2004, 2007, and 2010. Information about the trends for each product category is detailed in the Mercury-added Product Fact Sheets.

The data presented below is based on submissions by manufacturers of mercury-added products to the members of the Interstate Mercury Education and Reduction Clearinghouse (IMERC), including Connecticut, Louisiana, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. More than 600 companies have submitted Mercury-added Product Notification Forms to the IMERC-member states since 2001. Data for individual companies is available through the online searchable IMERC Mercury-Added Products Database.

Mercury Use in Products

Table 1 summarizes the total amount of mercury sold in all products in 2001, 2004, 2007, and 2010.[1]

Table 1: Total Mercury Sold in Product in the U.S. (tons)

Product/ Component	2001	2004	2007	2010	Percentage Change 2001-2010
All Categories	**129.53**	**111.52**	**71.70**	**56.71**	**-56%**
Switches & Relays	60.07	51.44	29.93	19.43	-68%
Dental Amalgam	30.77	26.61	19.96	17.08	-44%
Thermostats	14.63	14.45	3.74	0.17	-99%
Lamps	10.71	10.07	10.65	8.40	-22%
Batteries	2.79	2.47	2.07	7.12	+155%
Measuring Devices	5.12	3.05	1.13	0.77	-85%
Formulated Products	1.20	1.04	1.45	1.37	+14%
Miscellaneous	4.25	2.40	2.78	2.38	-44%

[1] More detailed information on 2001 and 2004 data can be found in the Report, *Trends in Mercury Use in Products: Summary of the IMERC Mercury-added Products Database*, June 2008. (www.newmoa.org/prevention/mercury/imerc/pubs/reports.cfm)

The table shows that overall, mercury use in products sold in the U.S. decreased by approximately 56 percent from 2001 to 2010. With the exception of the batteries and formulated products categories, all of the targeted product categories declined during this decade.

Since 2001, many states have passed legislation banning the use and sale of certain mercury-added products, either based on the amount of mercury they contain, or the product category itself. These bans cover mercury-added fever thermometers and other measuring devices, switches and relays, button-cell batteries, and thermostats.

Figures 1-2 present the mercury use in product categories for the 2001 and 2010 triennial reporting years.

Figure 1: Total Mercury Sold in Product in the U.S. in 2001 (pounds)

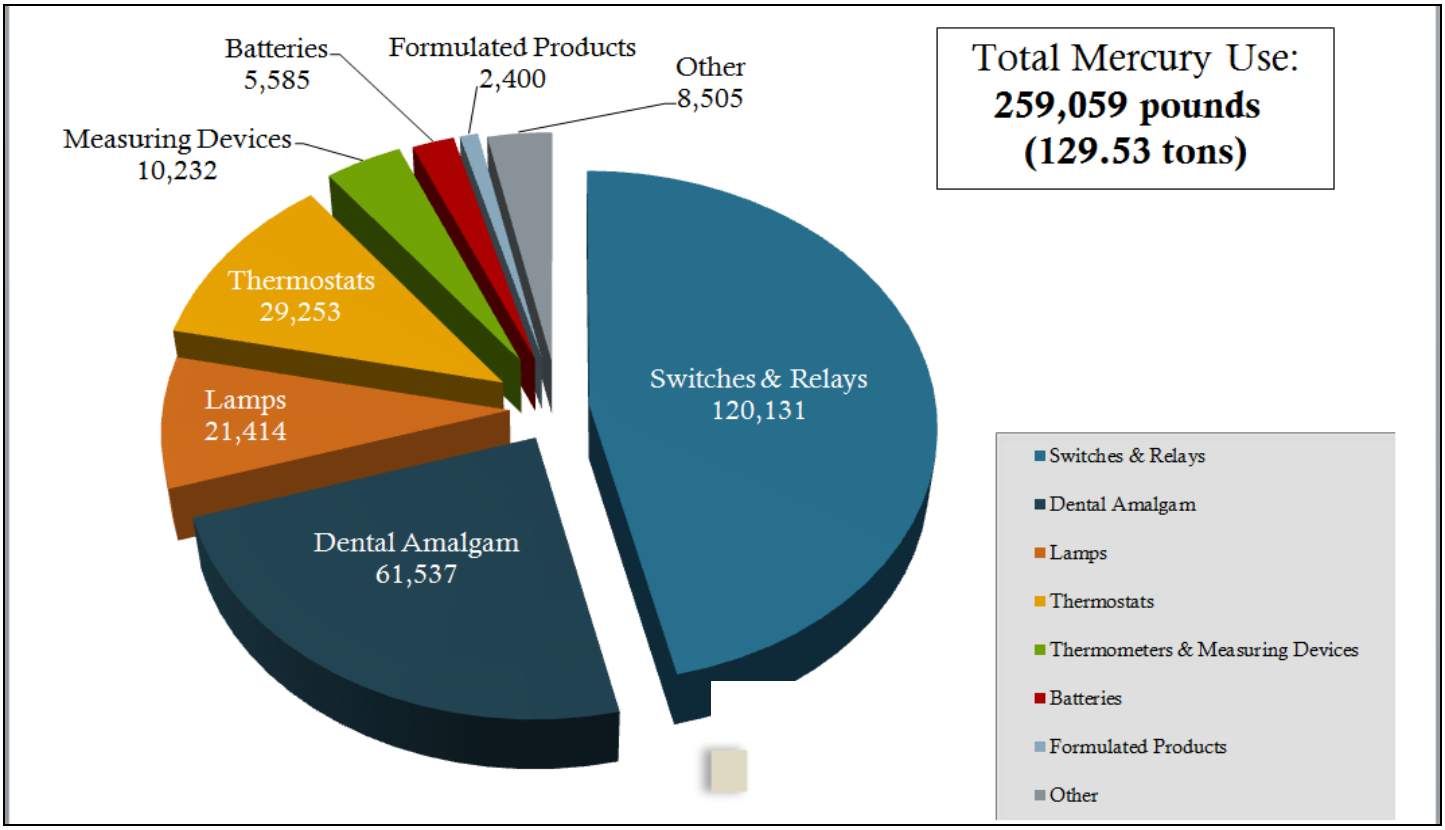
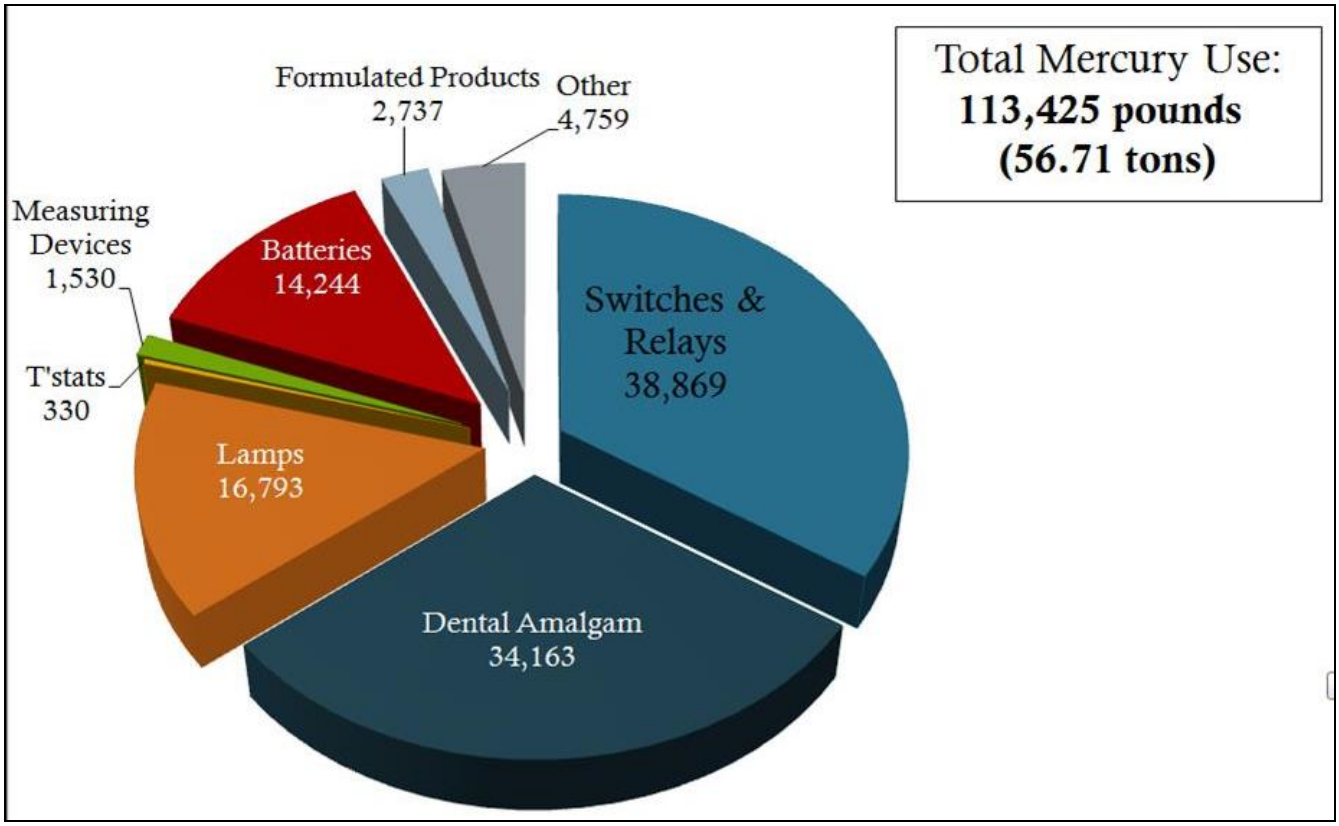


Figure 2: Total Mercury Sold in Product in the U.S. in 2010 (pounds)



Data Summary

Batteries – Mercury use in batteries increased 155 percent – from 2.79 tons in 2001 to 7.12 tons in 2010. Much of the increase noted between the 2007 and 2010 reporting years was reported by the National Electrical Manufacturers Association (NEMA) on behalf of its members. NEMA represents five of the major battery manufactures, including Duracell, Eastman Kodak, Energizer, Renata, and Rayovac. This subset of manufacturers reported a difference of 1,991 pounds in 2007 versus 13,795 pounds in 2010 – an increase of almost 600 percent. In contrast, the non-NEMA reporting companies reported a decrease of 59 percent.

Dental Amalgam – Reported use of mercury in dental amalgam sold in the U.S. in 2001 was approximately 30.8 tons, decreasing to 17.1 tons in 2010, or by about 45 percent. Dental amalgam remains the second largest category of mercury use in products for all of the IMERC reporting years. There are no state restrictions on the sale or distribution of dental amalgam.

Formulated Products – In 2001, approximately 1.2 tons of mercury was sold in formulated products, which increased approximately 14 percent to 1.37 tons in 2010. The latest trends analysis shows that, between 2007 and 2010, mercury use in formulated products decreased by 0.08 tons, or approximately 17 percent. This product category remains one of the smallest tracked by the IMERC states.

Lighting – Overall, mercury use in lamps decreased from 10.71 tons in 2001 to 8.4 tons in 2010 – a decline of approximately 22 percent. In the early 2000s, there was a significant increase in the number of electronics utilizing fluorescent lamps for illumination in displays. Government agencies, companies, and environmental organizations have heavily promoted the use of energy-efficient linear and compact fluorescent bulbs (CFLs) for general consumer use. In recent years, the more energy-efficient light-emitting diode (LED) bulbs have become more available and affordable. As a result, many electronics manufacturers have been switching to LEDs for their products.

Measuring Devices – Approximately 5.12 tons of mercury contained in measuring devices was sold in 2001, decreasing to 0.77 tons in 2010, or by about 85 percent. This includes a decrease in mercury thermometers of about 16 percent from 2007 to 2010. Many states have restricted the sale of mercury-added measuring devices, particularly thermometers, barometers, and blood pressure cuffs (also called sphygmomanometers) since 2001.

Switches and Relays – Mercury use in switches and relays sold in the U.S. during 2001 was approximately 60.07 tons, which decreased to slightly more than 19.43 tons in 2010 – representing a decline of approximately 68 percent. Many members of IMERC have banned the sale of mercury-added switches and relays since 2010 (with limited exceptions).

Thermostats – The amount of mercury in thermostats sold in the U.S. during calendar year 2001 was 14.6 tons compared to only 0.17 tons in 2010. Mercury use in thermostats has decreased almost 99 percent since 2001. Many states restrict the sale of mercury-added thermostats, and non-mercury programmable thermostats are popular now because they can help promote energy-efficiency.

Data Caveats

A number of important caveats must be considered when reviewing the data summarized in this Fact Sheet:

- The information may not represent the entire universe of mercury-added products sold in the U.S. The IMERC-member states continuously receive new information from mercury-added product manufacturers, and the data presented in this Fact Sheet may underestimate the total amount of mercury sold.

- The information summarizes intentional mercury use in products sold nationwide since 2001. It does not include products sold prior to January 1, 2001 or exported outside of the U.S.

- Reported data includes only mercury that is used in the product, and does not include mercury emitted during mining, manufacturing, or other points in the products' life cycle.