

MERCURY

(Data in metric tons of mercury content, unless otherwise noted)¹

Domestic Production and Use: Mercury has not been mined as a primary mineral commodity in the United States since 1992. A small quantity of byproduct mercury was recovered from gold ore, but production was not reported. Recovery of mercury from obsolete or wornout items remains the principal source of domestic mercury production. The chlorine-caustic soda industry is the largest end user of mercury as an electrolyte, and that mercury is recycled in-plant. Mercury in varying amounts is used in, and may be recycled from, automobile convenience switches, barometers, computers, dental amalgam, manometers, mercury-vapor and fluorescent lamps, thermometers, and thermostats. It is also used in cleansers, pesticides, folk medicine, and skin lighteners; however, its use in batteries and paints has been discontinued.

<u>Salient Statistics—United States:</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003^e</u>
Production:					
Mine	NA	NA	NA	NA	NA
Secondary, industrial	NA	NA	NA	NA	NA
Imports for consumption (gross weight)	62	103	100	209	200
Exports (gross weight)	181	182	108	201	200
Price, average value, dollars per flask, free market	140.00	155.00	155.00	155.00	170.00
Net import reliance ² as a percentage of apparent consumption ^e	>95%	>95%	>95%	>95%	>95%

Recycling: Recycling of old scrap, chiefly from in-plant processing of amalgam from the chlorine-caustic soda production process, accounted for most of the domestic mercury production in 2003.

Import Sources (1999-2002): Australia, 30%; Chile, 30%; Germany, 15%; Peru, 12%; and other, 13%.

<u>Tariff: Item</u>	<u>Number</u>	<u>Normal Trade Relations</u>
		<u>12/31/03</u>
Mercury	2805.40.0000	1.7% ad val.

Depletion Allowance: 22% (Domestic), 14% (Foreign).

Government Stockpile: In addition to the quantities shown below, 146 tons of secondary mercury was held by the U.S. Department of Energy at Oak Ridge, TN. The Defense National Stockpile Center has prepared a Mercury Management Environmental Impact Statement to determine how to manage its elemental mercury inventory. A Record of Decision will be published that discusses which storage option will be implemented. Sales from the National Defense Stockpile remained suspended.

Stockpile Status—9-30-03³

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 2003	Disposals FY 2003
Mercury	4,436	—	4,436	—	—

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Events, Trends, and Issues: Federal, State, and local governments are concerned about the toxic effects of mercury, and therefore regulations are being implemented that address mercury releases, recycling, and the final disposition of mercury-bearing products. As a result, environmental standards and regulations are likely to continue as the major determinants of domestic mercury supply and demand. The major component of supply will remain the secondary industry owing to the recycling of many products and various wastes to avoid deposition in landfills. Domestic primary production is expected to remain limited to byproduct production where the mercury is recovered to avoid releases to the environment. Domestic mercury consumption will continue to decline as mercury-containing products such as dental amalgam or thermometers are replaced by ceramic fillings and digital thermometers, respectively.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ⁴	Reserve base ⁴
	2002	2003 ^e		
United States	NA	NA	—	7,000
Algeria	800	400	2,000	3,000
Italy	—	—	—	69,000
Kyrgyzstan	250	250	7,500	13,000
Spain	300	500	76,000	90,000
Other countries	405	400	38,000	61,000
World total (rounded)	1,760	1,600	120,000	240,000

World Resources: In the United States, there are mercury occurrences in Alaska, California, Nevada, and Texas. World mercury resources are estimated at nearly 600,000 tons, principally in Kyrgyzstan, Russia, Slovenia, Spain, and Ukraine. These are sufficient for another century or more, especially with declining consumption rates. Byproduct mercury may be produced at copper, gold, and lead mines worldwide; however, there are no data on the amount of mercury produced.

Substitutes: Diaphragm and membrane cells replace mercury cells in the electrolytic production of chlorine and caustic soda. Lithium, nickel-cadmium, and zinc-air batteries are substitutes for mercury-zinc batteries. Indium compounds substitute for mercury in alkaline batteries. Ceramic composites can replace dental amalgams. Organic compounds have replaced mercury fungicides in latex paint, and digital instruments have replaced mercury instruments in many applications.

^eEstimated. NA Not available. — Zero.

¹Some international data and dealer prices are reported in flasks. One metric ton (1,000 kilograms) = 29.0082 flasks, and 1 flask = 76 pounds, or 0.034 ton.

²Defined as imports – exports + adjustments for Government and industry stock changes.

³See Appendix B for definitions.

⁴See Appendix C for definitions.