

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. Byproduct mercury was recovered from gold ore and as calomel from scrubbers at gold smelters, but production data were not reported. Secondary mercury, which has been the principal domestic source of mercury, is recycled from automobile convenience switches, dental amalgam, mercury vapor and fluorescent lamps, and medical equipment; that secondary reservoir, however, is shrinking. Mercury is also used in, and may be recycled from, barometers, computers, gym flooring, manometers, thermometers, and thermostats. Mercury use is declining owing to environmental and human health considerations, and non-mercury-bearing products may be substituted for these devices. The chlorine-caustic soda industry is the leading end user of mercury as an electrolyte to separate chlorine from caustic soda. The mercury is recycled in-plant, but some mercury is lost during the chlorine-caustic soda production process, and replacement mercury is purchased. Mercury use in batteries and paints has been discontinued in the United States. Globally, mercury may also be used in artisanal gold mining, button-type batteries, cleansers, folk medicine, pesticides, and skin-lightening cream and soap.

Salient Statistics—United States:	2000	2001	2002	2003	2004^e
Production:					
Mine	NA	NA	NA	NA	NA
Secondary, industrial	NA	NA	NA	NA	NA
Imports for consumption (gross weight)	103	100	209	46	50
Exports (gross weight)	182	108	201	287	300
Price, average value, dollars per flask, free market	155.00	155.00	155.00	170.00	350.00
Net import reliance ² as a percentage of apparent consumption ^e	E	E	NA	E	E

Recycling: Recycling from secondary sources (old scrap), as described above, was the principal source of domestic mercury production in 2004. The approximately 3,000 tons of mercury on hand in the chlorine-caustic soda industry are recycled in-plant (home scrap).

Import Sources (2000-03): Australia, 29%; Chile, 25%; Germany, 18%; Peru, 13%; and other, 15%.

Tariff: Item	Number	Normal Trade Relations
		12-31-04
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 prepared a Mercury Management Environmental Impact Statement in 2004 to determine how to manage its elemental mercury inventory. Consolidated storage is the preferred alternative for storage of this inventory. Sales from the National Defense Stockpile remained suspended.

Stockpile Status—9-30-04³

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 2004	Disposals FY 2004
Mercury	4,436	—	4,436	—	—

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Events, Trends, and Issues: The secondary supply of mercury is in decline owing to declining use of mercury in many products. This is partially offset by increased recycling of existing mercury-bearing products and various wastes to avoid deposition in landfills. The rise in price for a flask of mercury during the past year was caused by a steadily diminishing supply of mercury products that may be recycled, combined with higher gold prices and the consequent increase in demand for mercury use in artisanal gold mining. Federal, State, and local governments are concerned about the toxic effects of mercury. Therefore, legislation such as the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act mandate regulation of generation, treatment, and disposal of products that contain mercury. Environmental standards and regulations are likely to continue as major factors in domestic mercury supply and demand. Domestic production is expected to remain limited mainly to byproduct production from gold processing where the mercury is recovered to avoid releases to the environment. Domestic mercury consumption will continue to decline as mercury-containing products are phased out and non-mercury-containing products are substituted.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ⁴	Reserve base ⁴
	2003	2004 ^e		
United States	NA	NA	—	7,000
Algeria	300	400	2,000	3,000
China	610	650	—	—
Italy	—	—	—	69,000
Kyrgyzstan	300	300	7,500	13,000
Spain	150	200	76,000	90,000
Other countries	170	200	38,000	61,000
World total (rounded)	1,530	1,750	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 to be nearly 600,000 tons, principally in China, 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, lead, and zinc mines worldwide; there are, however, no data on the amount of mercury produced.

Substitutes: Diaphragm and membrane cells are increasingly replacing 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. E Net exporter. 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 34.5 kilograms, 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.