MERCURY[1]

(Data in metric tons of mercury content, unless otherwise noted)[2]

Domestic Production and Use: Recovery of mercury from obsolete or wornout items remains the principal source of domestic mercury production. Several companies in the eastern and central United States recovered mercury from a variety of secondary sources, such as batteries, chloralkali wastewater sludges, dental amalgams, electrical apparatus, fluorescent light tubes, and measuring instruments. Domestic mine production of mercury was limited to a very small quantity of byproduct production from fewer than 10 Western State gold mines. The manufacture of chlorine and caustic soda, along with its use in electrical and electronic applications probably accounted for two-thirds to three-fourths of the mercury consumed domestically. The remainder was used in other applications such as measuring and control instruments and dental amalgams.

Salient Statistics—United States:	1998	1999	2000	2001	2002[e]
Production:					
Mine	NA	NA	NA	NA	NA
Secondary, industrial	NA	NA	NA	NA	NA
Imports for consumption (gross weight)	128	62	103	100	100
Exports (gross weight)	63	181	182	108	300
Price, average value, dollars per flask, free market	139.84	140.00	155.00	155.00	140.00

Recycling: Recycling of old scrap represented essentially all of domestic mercury production in 2002.

Import Sources (1998-2001): United Kingdom, 30%; Chile,15%; Kazakhstan, 13%; Germany, 13%; and other, 29%.

Tariff: Item	Number	Normal Trade Relations 12/31/02
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.

Stockpile Status—9-30-02[3]

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 2002	Disposals FY 2002
Mercury	4,435	—	4,435	—	—

Contact **William E. Brooks [(703) 648-7791, wbrooks@usgs.gov, fax: (703) 648-7757]**

MERCURY

Events, Trends, and Issues: Federal, State, and local governments are concerned about the toxic effects of mercury and therefore regulate mercury emissions and/or the final disposition of mercury-bearing products. As a result, stringent environmental standards 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 worn out or obsolete 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 emissions to the environment. Domestic mercury consumption will continue to decline as mercury is gradually eliminated in many products or as substitute products are developed.

Sales from the National Defense Stockpile remained suspended.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves[4]	Reserve base[4]
	2001	2002[e]		
United States	NA	NA	—	7,000
Algeria	240	220	2,000	3,000
Italy	—	—	—	69,000
Kyrgyzstan	300	300	7,500	13,000
Spain	500	500	76,000	90,000
Other countries	360	400	38,000	61,000
World total (may be rounded)	1,400	1,400	120,000	240,000

World Resources: 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.

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

[e]Estimated. NA Not available. — Zero.

[1]Prepared by Robert G. Reese, Jr.

[2]One metric ton (1,000 kilograms) = 29.0082 flasks.

[3]See Appendix B for definitions.

[4]See Appendix C for definitions.