

MERCURY

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

Domestic Production and Use: Recovery of mercury from obsolete or worn out items remains the primary 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, chlor-alkali 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 gold mines in California, Nevada, and Utah. The value of mercury used in the United States was estimated at approximately \$2 million. It was estimated that approximately 35% of the mercury consumed domestically was used in the manufacture of chlorine and caustic soda and 30% for electrical and electronic applications. The remaining 35% was used for applications such as measuring and control instruments and dental amalgams.

Salient Statistics—United States:	1994	1995	1996	1997	1998^e
Production: Mine	W	W	W	W	W
Secondary, industrial	466	534	446	389	400
Imports for consumption	129	377	340	164	200
Exports	316	179	45	134	150
Shipments from Government stockpile excesses	86	—	—	—	—
Consumption: Reported	483	436	372	346	400
Apparent	W	W	W	W	W
Price, average value, dollars per flask,					
D.F. Goldsmith	194.45	247.40	261.65	NA	NA
Free market	NA	NA	NA	159.52	180.00
Stocks, industry, yearend ²	469	321	446	203	200
Net import reliance ³ as a percent of apparent consumption	W	W	W	W	W

Recycling: About 400 tons of mercury was recovered from old scrap in 1998.

Import Sources (1994-97): Russia, 37%; Canada, 25%; Kyrgyzstan, 13%; Spain, 10%; and other, 15%.

Tariff: Item	Number	Normal Trade Relations (NTR) 12/31/98	Non-NTR⁴ 12/31/98
Mercury	2805.40.0000	1.7% ad val.	5.7% 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—9-30-98⁵

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 1998	Disposals FY 1998
Mercury	4,435	—	4,435	690	—

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Events, Trends, and Issues: Federal, State, and local jurisdictions are concerned about mercury emissions and/or the final disposition of mercury-bearing products. As a result, stringent environmental 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 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 remain suspended pending completion of an analysis of the potential environmental impact of the sales.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ⁶	Reserve base ⁶
	1997	1998 ^e		
United States	W	W	—	7,000
Algeria	370	300	2,000	3,000
Italy	—	—	—	69,000
Kyrgyzstan	611	600	7,500	13,000
Spain	1,000	1,000	76,000	90,000
Other countries	<u>745</u>	<u>700</u>	<u>38,000</u>	<u>61,000</u>
World total (may be rounded)	2,730	2,600	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.

^eEstimated. NA Not available. W Withheld to avoid disclosing company proprietary data.

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

²Consumer stocks only.

³Defined as imports - exports + adjustments for Government and industry stock changes.

⁴See Appendix B.

⁵See Appendix C for definitions.

⁶See Appendix D for definitions.