

TIN

(Data in metric tons of tin content unless otherwise noted)

Domestic Production and Use: Tin has not been mined or smelted in the United States since 1993 and 1989, respectively. Twenty-five firms used about 91% of the primary tin consumed domestically in 2010. The major uses were as follows: electrical, 28%; cans and containers, 19%; construction, 13%; transportation, 12%; and other, 28%. On the basis of the average New York composite price, the estimated values of some critical items in 2010 were as follows: primary metal consumed, \$595 million; imports for consumption, refined tin, \$892 million; and secondary production (old scrap), \$278 million.

Salient Statistics—United States:	2006	2007	2008	2009	2010^e
Production:					
Secondary (old scrap)	11,600	12,200	11,500	11,000	11,700
Secondary (new scrap)	2,340	2,800	2,100	1,930	2,400
Imports for consumption, refined tin	43,000	34,600	36,300	33,000	37,500
Exports, refined tin	5,490	6,410	9,800	3,170	8,400
Shipments from Government stockpile excesses	8,409	4,540	60	—	—
Consumption, reported:					
Primary	29,200	23,700	22,900	24,700	25,000
Secondary	8,480	7,490	6,250	7,750	6,800
Consumption, apparent	58,000	43,700	38,600	42,400	38,020
Price, average, cents per pound:					
New York market	419	680	865	642	824
New York composite	565	899	1,130	837	1,079
London	398	659	837	615	801
Kuala Lumpur	398	658	838	609	800
Stocks, consumer and dealer, yearend	7,890	9,100	8,560	7,020	9,800
Net import reliance ¹ as a percentage of apparent consumption	80	72	70	74	69

Recycling: About 14,000 tons of tin from old and new scrap was recycled in 2010. Of this, about 12,000 tons was recovered from old scrap at 2 detinning plants and 78 secondary nonferrous metal processing plants.

Import Sources (2006–09): Peru, 55%; Bolivia, 16%; China, 8%; Indonesia, 8%; and other, 13%.

Tariff: Most major imports of tin, including unwrought metal, waste and scrap, and unwrought tin alloys, enter the United States duty free.

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

Government Stockpile: On June 4, 2008, the Office of the Undersecretary of Defense suspended tin sales pending further research as a result of the Defense Logistics Agency, DLA Strategic Materials' (formerly Defense National Stockpile Center) reconfiguration. As a result of this suspension, the DLA Strategic Materials made no tin sales in calendar year 2010. The fiscal year 2011 Annual Materials Plan was set at 4,000 tons. The DLA Strategic Materials inventory was stored in the Hammond, IN, depot and was all "long horn" brand tin. When tin was last offered for sale, it was available via the basic ordering agreement and negotiated sales procedures.

Stockpile Status—9-30-10²

Material	Uncommitted inventory	Authorized for disposal	Disposal plan FY 2010	Disposals FY 2010
Pig tin	4,020	4,020	4,000	—

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Events, Trends, and Issues: Apparent consumption of tin in the United States declined by 11% in 2010 compared with that of 2009. The monthly average composite price of tin rose substantially during the year. Higher prices in 2010 were attributed to lower production in key producing countries and to investment fund buying and selling.

Developments continued in major tin-consuming countries to move to new lead-free solders that usually contain greater amounts of tin than do leaded solders.

In response to higher tin prices in 2010, tin producers opened new tin mines and tin smelters and expanded existing operations, including ones in Australia, Bolivia, Canada, and Thailand. Tin exploration activity increased, especially in Australia and Canada. In Bolivia, old tin tailings were being evaluated for reclamation of tin.

China continued as the world's leading tin producer from both mine and smelter sources but experienced sporadic difficulty in obtaining feedstock for its smelters. Indonesia, the world's second leading tin producer from both mine and smelter sources, continued to experience production difficulties, some related to a Government shutdown of possibly illegal production sites.

World Mine Production and Reserves: Reserve figures were changed for several countries, including Bolivia, Brazil, China, Malaysia, and Russia, based on new information from official Government sources in those countries.

	Mine production		Reserves ³
	<u>2009</u>	<u>2010^e</u>	
United States	—	—	—
Australia	1,400	2,000	180,000
Bolivia	19,000	16,000	400,000
Brazil	13,000	12,000	590,000
China	115,000	115,000	1,500,000
Congo (Kinshasa)	9,400	9,000	NA
Indonesia	55,000	60,000	800,000
Malaysia	2,380	2,000	250,000
Peru	37,500	38,000	710,000
Portugal	30	100	70,000
Russia	1,200	1,000	350,000
Thailand	120	100	170,000
Vietnam	3,500	3,500	NA
Other countries	<u>2,000</u>	<u>2,000</u>	<u>180,000</u>
World total (rounded)	260,000	261,000	5,200,000

World Resources: U.S. resources of tin, primarily in Alaska, were insignificant compared with those of the rest of the world. World resources, principally in western Africa, southeastern Asia, Australia, Bolivia, Brazil, China, and Russia, are sufficient to sustain recent annual production rates well into the future.

Substitutes: Aluminum, glass, paper, plastic, or tin-free steel substitute for tin in cans and containers. Other materials that substitute for tin are epoxy resins for solder; aluminum alloys, copper-base alloys, and plastics for bronze; plastics for bearing metals that contain tin; and compounds of lead and sodium for some tin chemicals.

^eEstimated. NA Not available. — Zero.

¹Defined as imports - exports + adjustments for Government and industry stock changes.

²See Appendix B for definitions.

³See Appendix C for resource/reserve definitions and information concerning data sources.