

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 81% of the primary tin consumed domestically in 2005. The major uses were as follows: cans and containers, 27%; electrical, 23%; construction, 10%; transportation, 10%; and other, 30%. On the basis of the average New York composite price, the estimated values of some critical items were as follows: primary metal consumed, \$438 million; imports for consumption, refined tin, \$644 million; and secondary production (old scrap), \$59 million.

Salient Statistics—United States:	2001	2002	2003	2004	2005^e
Production:					
Secondary (old scrap)	6,700	6,760	5,500	4,850	5,000
Secondary (new scrap)	7,200	3,790	3,570	3,590	4,000
Imports for consumption, refined tin	37,500	42,200	37,100	47,600	54,800
Exports, refined tin	4,350	2,940	3,690	3,650	4,600
Shipments from Government stockpile excesses	12,000	8,960	8,880	10,600	11,000
Consumption, reported:					
Primary	34,200	34,000	32,900	33,300	37,300
Secondary	7,630	5,830	4,510	5,670	6,000
Consumption, apparent	48,300	55,700	48,700	59,200	65,800
Price, average, cents per pound:					
New York market	211	195	232	414	369
New York composite	315	292	340	555	534
London	203	184	222	388	344
Kuala Lumpur	201	184	222	392	343
Stocks, consumer and dealer, yearend	9,620	8,910	7,960	8,170	8,000
Net import reliance ¹ as a percentage of apparent consumption	86	88	89	92	93

Recycling: About 9,000 tons of tin from old and new scrap was recycled in 2005. Of this, about 5,000 tons was recovered from old scrap at 2 detinning plants and 91 secondary nonferrous metal processing plants.

Import Sources (2001-04): Peru, 44%; China, 14%; Bolivia, 14%; Indonesia, 11%; and other, 17%.

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: The Defense National Stockpile Center (DNSC) continued its long-term tin sales program. The DNSC Annual Materials Plan for tin sales for fiscal year 2005 (October 1, 2004, through September 30, 2005) remained at 12,000 tons. DNSC planned to continue to have at least one long-term negotiated "contract" sale for each fiscal year until inventories are exhausted. The remaining tonnage will be sold using the DNSC Basic Ordering Agreement (BOA). Under the BOA approach, DNSC posts the amount of tin that it wants to sell on its Web site every Tuesday. Interested parties submit a quote, and DNSC makes a sales determination by the end of the business day. BOA sales began in June 2002. In fiscal year 2005, DNSC had only one long-term sale, and that was in September. Tin is held in Federal depots at three locations: Hammond, IN; New Haven, IN; and Point Pleasant, WV.

Stockpile Status—9-30-05²

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 2005	Disposals FY 2005
Pig tin	16,651	9,812	16,651	12,000	8,354

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Events, Trends, and Issues: The Steel Recycling Institute announced that the steel can (usually tinned) recycling rate in the United States was 61% for 2004, compared with 60% in 2003. Tin, as well as steel, is recovered in can recycling.

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

During 2005, there were several closed or partially disabled tin mines that reopened to take advantage of higher tin prices that have been sustained during the past 2 years.

The price of tin rose during the first 3 months of 2005, then declined steadily through August. Industry observers thought that on average during 2005 world tin production was insufficient to meet demand, continuing a moderate production deficit from 2004.

The world tinplate industry continued to undergo mergers and consolidations. In most cases, this resulted in the loss of tin mill capacity. During the past 4 years, several domestic steel producers that make tinplate have declared bankruptcy. During 2005, domestic tinplate capacity began to stabilize with the buyout of several large domestic bankrupt tinplate producers by a major foreign producer.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ³	Reserve base ³
	2004	2005 ^e		
United States	—	—	20,000	40,000
Australia	800	800	145,000	300,000
Bolivia	16,800	17,000	450,000	900,000
Brazil	12,200	12,300	540,000	2,500,000
China	110,000	115,000	1,700,000	3,500,000
Congo (Kinshasa)	2,000	2,000	NA	NA
Indonesia	66,000	80,000	800,000	900,000
Malaysia	3,000	2,000	1,000,000	1,200,000
Peru	42,000	42,000	710,000	1,000,000
Portugal	500	500	70,000	80,000
Russia	2,500	3,000	300,000	350,000
Thailand	600	650	170,000	200,000
Vietnam	4,000	4,000	NA	NA
Other countries	4,000	1,200	180,000	200,000
World total (rounded)	264,000	280,000	6,100,000	11,000,000

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 21st century.

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 definitions.