TIN

(Data in metric tons of contained tin, unless otherwise noted)

Domestic Production and Use: In 1997, there was no domestic tin mine production. Production of tin at the only U.S. tin smelter, at Texas City, TX, stopped in 1989. Twenty-five firms consumed about 85% of the primary tin. The major uses were as follows: cans and containers, 30%; electrical, 20%; construction, 10%; transportation, 10%; and other, 30%. The estimated value of primary metal consumed in 1997, based on the New York composite price, was $310 million.

Salient Statistics—United States:	1993	1994	1995	1996	1997[e]
Production: Mine	([1])	([1])	—	—	—
Secondary (old scrap)	6,900	7,400	7,720	7,580	7,500
Secondary (new scrap)	5,100	4,300	3,880	3,460	3,500
Imports for consumption: Refined tin	33,700	32,400	33,200	30,200	34,000
Exports: Refined tin	2,600	2,560	2,790	3,670	4,500
Shipments from Government stockpile excesses	6,020	5,620	11,450	11,760	11,000
Consumption reported: Primary	34,600	33,700	35,200	36,500	37,000
Secondary	11,900	8,530	10,800	8,180	9,000
Consumption, apparent	44,200	43,300	47,000	48,400	49,000
Price, average, cents per pound:					
New York market	239	255	295	288	265
New York composite	350	369	416	412	385
London	233	248	282	279	255
Kuala Lumpur	232	245	278	275	255
Stocks, consumer and dealer, yearend	10,800	10,400	11,700	11,800	11,000
Employment, mine and primary smelter, number[e]	5	—	—	—	—
Net import reliance[2] as a percent of apparent consumption	84	83	84	83	85

Recycling: About 11,000 tons of tin from old and new scrap was recycled in 1997. Of this, about 7,500 tons was recovered from old scrap at 7 detinning plants and 110 secondary nonferrous metal processing plants.

Import Sources (1993-96): Brazil, 30%; Bolivia, 22%; Indonesia, 21%; China, 12%; and other, 15%.

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

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

Government Stockpile:

Stockpile Status—9-30-97[3]

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 1997	Disposals FY 1997
Pig tin	104,000	—	97,800	12,000	12,000

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Events, Trends, and Issues: The Defense Logistics Agency (DLA) made a major change in its tin sales program for fiscal year 1997, now emphasizing its long-term sales program and reducing its spot sales effort. DLA allocated 2,000 tons of tin to sell on the spot market at monthly sales. Two long-term sales were planned for fiscal year 1997.

Public Law 104-201 provided for continued tin disposals from the National Defense Stockpile. DLA announced that its Annual Materials Program for fiscal year 1997 called for sales of up to 12,000 tons of stockpile tin. Stockpile tin is warehoused at 10 depots, with the largest holdings at Hammond, IN, and Point Pleasant, WV.

A major domestic tinplate producer completed construction of a new joint-venture tinplate mill in Belmont County, OH. The cost was estimated at $80 million. It was the first domestic tinplating facility built since the early 1960's and replaced that producer's current 50-year-old tin mill.

The Steel Recycling Institute (SRI), Pittsburgh, PA, announced that the domestic steel can recycling rate reached 58% in 1996, compared with a 56% rate in 1995. SRI observed that 1996's figures represented more than 1.6 million tons of steel cans. SRI continued to emphasize the importance of aerosol can recycling. It noted that 200 million Americans had access to steel can recycling programs.

The world tin industry's major research and development laboratory, based in the United Kingdom, was in its third full year under its new structure. It is now privatized, with funding supplied by numerous major tin producing and consuming firms rather than by the Association of Tin Producing Countries. The organization reported progress in several areas of research to develop new tin uses; among these was a tin foil capsule to replace lead foil capsules on wine bottles, and a new noncyanide-based electrolyte called "Stanzec" that yields a coating of tin and zinc, which could replace cadmium as an environmentally acceptable anticorrosion coating on steel.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves[4]	Reserve base[4]
	1996	1997[e]		
United States	—	—	20,000	40,000
Australia	8,830	9,000	210,000	600,000
Bolivia	15,200	16,000	450,000	900,000
Brazil	19,500	20,000	1,200,000	2,500,000
China	60,000	60,000	2,100,000	3,400,000
Indonesia	38,500	40,000	750,000	820,000
Malaysia	5,170	5,000	1,200,000	1,400,000
Peru	27,000	29,000	300,000	400,000
Portugal	4,800	6,000	70,000	80,000
Russia	8,000	8,000	300,000	350,000
Thailand	1,450	1,000	940,000	1,000,000
Other countries	7,000	7,000	180,000	200,000
World total (may be rounded)	196,000	201,000	7,700,000	12,000,000

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

[e]Estimated.

[1]Negligible.

[2]Defined as imports - exports + adjustments for Government and industry stock changes.

[3]See Appendix C for definitions.

[4]See Appendix D for definitions.