TIN

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

Domestic Production and Use: In 1999, 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 97% of the primary tin. The major uses were as follows: cans and containers, 30%; electrical, 20%; construction, 10%; transportation, 10%; and other, 30%. Based on the New York composite price, the estimated values of some critical items were as follows: primary metal consumed, $277 million; imports for consumption, refined tin, $326 million; old scrap, $65 million.

Salient Statistics—United States:	1995	1996	1997	1998	1999[e]
Production: Mine	—	—	—	—	—
Secondary (old scrap)	7,800	7,710	7,830	8,390	9,000
Secondary (new scrap)	3,800	3,930	4,540	7,710	8,800
Imports for consumption, refined tin	33,200	30,200	40,600	44,000	45,000
Exports, refined tin	2,790	3,670	4,660	5,020	6,000
Shipments from Government stockpile excesses	11,500	11,800	11,700	12,200	12,000
Consumption, reported: Primary	35,200	36,500	36,200	37,100	38,200
Secondary	10,800	8,180	8,250	8,620	9,000
Consumption, apparent	47,000	48,400	55,300	60,620	59,700
Price, average, cents per pound:					
New York market	295	288	265	264	249
New York composite	416	412	384	381	329
London	282	279	257	256	219
Kuala Lumpur	278	275	254	252	236
Stocks, consumer and dealer, yearend	11,700	10,900	11,200	10,700	11,100
Employment, mine and primary smelter, number[e]	—	—	—	—	—
Net import reliance[1] as a percent of apparent consumption	84	83	86	85	85

Recycling: About 17,800 tons of tin from old and new scrap was recycled in 1999. Of this, about 7,710 tons was recovered from old scrap at 5 detinning plants and 46 secondary nonferrous metal processing plants.

Import Sources (1995-98): Brazil, 21%; Indonesia, 20%; Bolivia, 17%; China, 16%; and other, 26%.

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

Depletion Allowance: 23% (Domestic), 15% (Foreign).

Government Stockpile: The Defense Logistics Agency (DLA) tin sales program emphasized its long-term activity and had only a modest spot sales effort. DLA allocated 2,000 tons of tin to sell on the spot market at monthly sales. Two long-term sales were again conducted, one in the spring, another in the fall. DLA announced that its Annual Materials Plan for fiscal year 1999 called for sales of up to 12,000 tons of stockpile tin. Stockpile tin is warehoused at six depots, with the largest holdings at Hammond, IN, and Baton Rouge, LA. The Stockton, CA, depot was closed.

Stockpile Status—9-30-99[2]

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 1999	Disposals FY 1999
Pig tin	71,674	8,077	71,674	12,000	12,000

Prepared by **James F. Carlin, Jr. [(703) 648-4985, jcarlin@usgs.gov, fax: (703) 648-7757]**

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Events, Trends, and Issues: The Steel Recycling Institute (SRI), Pittsburgh, PA, announced that the domestic steel can recycling rate was 56% in 1998, compared with a 61% rate in 1997. 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 fifth 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 were 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[3]	Reserve base[3]
	1998	1999[e]		
United States	—	—	20,000	40,000
Australia	10,000	9,000	210,000	600,000
Bolivia	11,000	12,000	450,000	900,000
Brazil	18,000	17,000	1,200,000	2,500,000
China	79,000	80,000	2,100,000	3,400,000
Indonesia	40,000	42,000	750,000	820,000
Malaysia	6,000	7,000	1,200,000	1,400,000
Peru	26,000	27,000	300,000	400,000
Portugal	4,000	4,000	70,000	80,000
Russia	5,000	5,000	300,000	350,000
Thailand	1,000	1,000	940,000	1,000,000
Other countries	6,000	6,000	180,000	200,000
World total (may be rounded)	206,000	210,000	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]Defined as imports - exports + adjustments for Government and industry stock changes.

[2]See Appendix B.

[3]See Appendix C for definitions.