

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 accounted for about 90% of the primary tin consumed domestically in 2018. The major uses for tin in the United States were tinplate, 21%; chemicals, 17%; solder, 14%; alloys, 10%; babbitt, bronze and brass, and tinning, 11%; and other, 27%. Based on the average Platts Metals Week New York dealer price for tin, the estimated value of imported refined tin was \$703 million, and the estimated value of tin recovered from old scrap domestically was \$213 million.

Salient Statistics—United States:	2014	2015	2016	2017	2018^e
Production, secondary:					
Old scrap ^e	10,100	10,100	10,300	10,300	10,000
New scrap	1,900	1,120	1,080	900	900
Imports for consumption:					
Tin, refined	35,600	33,600	32,200	34,300	37,000
Tin, alloys, gross weight	1,570	2,720	1,910	1,550	1,300
Tin, waste and scrap, gross weight	49,700	32,700	27,200	52,100	48,000
Exports:					
Tin, refined	2,920	807	1,150	1,560	1,000
Tin, alloys, gross weight	2,790	2,540	1,040	966	920
Tin, waste and scrap, gross weight	7,480	2,530	4,570	3,460	4,200
Shipments from Government stockpile	—	—	—	2	10
Consumption, reported:					
Primary	24,200	23,900	22,500	23,500	22,000
Secondary	3,240	2,940	2,920	3,140	2,400
Consumption, apparent, refined ¹	42,400	42,700	42,100	43,000	46,000
Price, average, cents per pound: ²					
New York dealer	1,023	756	839	937	930
London Metal Exchange, cash	994	729	815	911	910
Kuala Lumpur	993	NA	NA	NA	NA
Stocks, consumer and dealer, yearend	6,970	7,090	6,370	6,570	6,300
Net import reliance ³ as a percentage of apparent consumption	76	76	76	76	78

Recycling: About 11,000 tons of tin from old and new scrap was estimated to have been recycled in 2018. Of this, about 10,000 tons was recovered from old scrap at 2 detinning plants and about 75 secondary nonferrous metal-processing plants, accounting for 22% of apparent consumption. This decrease was attributed to a decrease in lead-base scrap.

Import Sources (2014–17): Indonesia, 23%; Malaysia, 23%; Peru, 22%; Bolivia, 17%; and other, 15%.

Tariff: Item	Number	Normal Trade Relations 12–31–18
Unwrought tin:		
Tin, not alloyed	8001.10.0000	Free.
Tin alloys, containing, by weight:		
5% or less lead	8001.20.0010	Free.
More than 5% but not more than 25% lead	8001.20.0050	Free.
More than 25% lead	8001.20.0090	Free.
Tin waste and scrap	8002.00.0000	Free.

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

Government Stockpile:⁴

Material	Inventory As of 9–30–18	FY2018		FY 2019	
		Potential Acquisitions	Potential Disposals⁵	Potential Acquisitions	Potential Disposals⁵
Tin (gross weight)	4,040	—	804	—	—

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Events, Trends, and Issues: Apparent consumption of tin in the United States was estimated to have increased slightly in 2018 compared with consumption in 2017. Indonesia was the primary supplier of tin to the United States, and the estimated amount of tin recycled in 2018 decreased slightly from that in 2017. Estimated average tin prices for the first 10 months in 2018 were 945 and 923 cents per pound for the New York dealer price and London Metal Exchange price, respectively—a slight increase from both of the average prices in 2017. The monthly average New York dealer tin price in 2018 peaked in February at 1,004 cents per pound, then steadily decreased through September to a monthly average price of 882 cents per pound, before recovering slightly to a monthly average price of 889 cents per pound in October.

In May 2018, the U.S. Department of the Interior, in coordination with other executive branch agencies, published a list of 35 critical minerals (83 FR 23295), including tin. This list was developed to serve as an initial focus, pursuant to Executive Order 13817, “A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals” (82 FR 60835).

World Mine Production and Reserves: Reserves for Australia were revised based on new information from Government sources.

	Mine production		Reserves ⁶
	<u>2017</u>	<u>2018^e</u>	
United States	—	—	—
Australia	7,200	7,000	7370,000
Bolivia	18,500	18,000	400,000
Brazil	18,000	18,000	700,000
Burma	47,000	45,000	110,000
China	93,000	90,000	1,100,000
Congo (Kinshasa)	9,500	9,000	150,000
Indonesia	83,000	83,000	800,000
Malaysia	3,810	4,000	250,000
Nigeria	5,960	6,000	NA
Peru	17,800	18,000	110,000
Russia	1,300	1,300	350,000
Rwanda	2,860	2,900	NA
Thailand	100	100	170,000
Vietnam	4,560	5,000	11,000
Other countries	200	300	180,000
World total (rounded)	313,000	310,000	4,700,000

World Resources: Identified resources of tin in the United States, 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, Indonesia, and Russia, are extensive and, if developed, could sustain recent annual production rates well into the future.

Substitutes: Aluminum, glass, paper, plastic, or tin-free steel substitute for tin content in cans and containers. Other materials that substitute for tin are epoxy resins for solder; aluminum alloys, alternative 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 production (old scrap) + refined tin imports – refined tin exports + adjustments for Government and industry stock changes. Excludes imports and exports of alloys, and waste and scrap.

²Source: Platts Metals Week.

³Defined as imports – exports + adjustments for Government and industry stock changes, excluding imports and exports of waste and scrap.

⁴See Appendix B for definitions.

⁵Disposals are defined as any barter, rotation, sale, or upgrade of National Defense Stockpile stock.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.

⁷For Australia, Joint Ore Reserves Committee-compliant reserves were about 260,000 tons.