

## TIN

(Data in metric tons, tin content, unless otherwise specified)

**Domestic Production and Use:** Tin has not been mined or smelted in the United States since 1993 or 1989, respectively. Twenty-five firms accounted for more than 93% of the primary tin consumed domestically in 2024. The uses for tin in the United States were tinplate, 23%; chemicals, 22%; solder, 11%; alloys, 10%; babbitt, brass and bronze, and tinning, 6%; bar tin, 2%; and other, 26%. In 2024, the estimated customs value of imported refined tin was \$750 million, and the estimated value of tin recovered from old scrap domestically was \$310 million based on the average S&P Global Platts Metals Week New York dealer price for tin.

<b>Salient Statistics—United States:</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024<sup>e</sup></b>
Production, secondary: <sup>e</sup>					
Old scrap	9,320	9,430	9,420	9,430	10,000
New scrap	8,000	7,600	7,900	7,900	7,900
Imports for consumption:					
Refined	31,600	38,100	33,200	28,200	25,000
Tin alloys, gross weight	840	1,110	740	990	740
Tin waste and scrap, gross weight	20,700	18,600	11,600	10,700	9,500
Exports:					
Refined	519	1,290	1,310	918	560
Tin alloys, gross weight	1,130	630	531	652	1,400
Tin waste and scrap, gross weight	1,200	2,800	30,300	38,000	15,000
Shipments from Government stockpile, gross weight <sup>1</sup>	–7	437	—	NA	NA
Consumption, apparent, refined <sup>2</sup>	40,300	48,000	41,200	34,700	37,000
Price, average, cents per pound: <sup>3</sup>					
New York dealer	799	1,580	1,546	1,256	1,400
London Metal Exchange (LME), cash	777	1,478	1,423	1,177	1,400
Stocks, consumer and dealer, yearend	10,400	9,030	9,180	11,200	9,100
Net import reliance <sup>4</sup> as a percentage of apparent consumption, refined tin	77	80	77	73	73

**Recycling:** About 18,000 tons of tin from old and new scrap was estimated to have been recycled in 2024. Of this, about 10,000 tons was recovered from old scrap at 1 detinning plant and 31 secondary nonferrous-metal-processing plants, accounting for 27% of apparent consumption.

**Import Sources (2020–23):** Refined tin: Peru, 30%; Bolivia, 23%; Indonesia, 20%; Brazil, 11%; and other, 16%. Waste and scrap: Canada, 95%; Mexico, 4%; and other, 1%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12–31–24</b>
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:<sup>5</sup>**

	<b>FY 2024</b>		<b>FY 2025</b>	
<b>Material</b>	<b>Potential acquisitions</b>	<b>Potential disposals</b>	<b>Potential acquisitions</b>	<b>Potential disposals</b>
Tin (gross weight)	—	640	—	640

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**Events, Trends, and Issues:** The estimated amount of new and old scrap tin recycled domestically in 2024 increased by 3% compared with that in 2023. The estimated annual average New York dealer price for refined tin in 2024 was 1,400 cents per pound, an 11% increase compared with that in 2023. The estimated annual average LME cash price for refined tin in 2024 was 1,400 cents per pound, a 19% increase compared with that in 2023.

In 2024, the United States Department of Commerce proposed antidumping and countervailing duties on tin mill product imports from Canada, China, Germany, and the Republic of Korea following its investigation into dumping and subsidization. However, the U.S. International Trade Commission concluded that these imports did not materially injure the domestic tin mill products industry; therefore, the duties were not implemented. In September 2024, \$19 million was awarded by the U.S. Department of Defense under the Defense Production Act, Title III, to establish a tin smelting, refining, and recycling facility in Coatesville, PA.

In April, a Uganda-based tin-mining company commissioned a tin refinery in Mbarara, Uganda. The refinery was expected to produce approximately 1,000 tons per year of more-than-99%-pure tin ingots. In May, a Mauritius-based company announced that it began production at its new processing plant in North Kivu Province, Congo (Kinshasa). Annual tin production was expected to increase to approximately 20,000 tons from the current 12,000 tons. In September, two state-owned leading refined-tin producers from China and Indonesia entered into a strategic partnership to collaborate in mining, smelting and refining, trading, and downstream product development.

**World Mine Production and Reserves:** Reserves for China and Vietnam were revised based on company and Government reports.

	Mine production		Reserves <sup>6</sup>
	2023	2024 <sup>e</sup>	
United States	—	—	—
Australia	9,850	9,900	<sup>7</sup> 620,000
Bolivia	18,700	21,000	400,000
Brazil	29,300	29,000	420,000
Burma	<sup>e</sup> 34,000	34,000	700,000
China	<sup>e</sup> 70,000	69,000	1,000,000
Congo (Kinshasa)	<sup>e</sup> 20,000	25,000	120,000
Indonesia	<sup>e</sup> 69,000	50,000	NA
Laos	<sup>e</sup> 1,700	1,500	NA
Malaysia	3,770	3,000	NA
Nigeria	<sup>e</sup> 7,000	7,000	NA
Peru	26,200	31,000	130,000
Russia	<sup>e</sup> 2,700	3,000	460,000
Rwanda	<sup>e</sup> 3,600	3,600	NA
Vietnam	<sup>e</sup> 7,600	6,700	23,000
Other countries	1,840	1,800	310,000
World total (rounded)	305,000	300,000	>4,200,000

**World Resources:**<sup>6</sup> Identified resources of tin in the United States, primarily in Alaska, were insignificant compared with those in 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 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.

<sup>e</sup>Estimated. NA Not available. — Zero.

<sup>1</sup>Defined as change in inventory from prior yearend inventory. If negative, increase in inventory. Beginning in 2023, Government stock changes no longer available.

<sup>2</sup>Defined for 2020–22 as production from old scrap + refined tin imports – refined tin exports ± adjustments for Government and industry stock changes. Beginning in 2023, Government stock changes no longer included.

<sup>3</sup>Source: S&P Global Platts Metals Week.

<sup>4</sup>Defined for 2020–22 as refined imports – refined exports ± adjustments for Government and industry stock changes. Beginning in 2023, Government stock changes no longer included.

<sup>5</sup>See Appendix B for definitions.

<sup>6</sup>See Appendix C for resource and reserve definitions and information concerning data sources.

<sup>7</sup>For Australia, Joint Ore Reserves Committee-compliant or equivalent reserves were 320,000 tons.