

ANTIMONY

(Data in metric tons of antimony content unless otherwise noted)

Domestic Production and Use: In 2020, no marketable antimony was mined in the United States. A mine in Nevada that had extracted about 800 tons of stibnite ore from 2013 through 2014 was placed on care-and-maintenance status in 2015 and had no reported production in 2020. Primary antimony metal and oxide were produced by one company in Montana using imported feedstock. Secondary antimony production was derived mostly from antimonial lead recovered from spent lead-acid batteries. The estimated value of secondary antimony produced in 2020, based on the average New York dealer price for antimony, was about \$35 million. Recycling supplied about 18% of estimated domestic consumption, and the remainder came mostly from imports. The value of antimony consumption in 2020, based on the average New York dealer price, was about \$193 million. In the United States, the leading uses of antimony were as follows: flame retardants, 42%; metal products, including antimonial lead and ammunition, 36%; and nonmetal products, including ceramics and glass and rubber products, 22%.

Salient Statistics—United States:	2016	2017	2018	2019	2020^e
Production:					
Mine (recoverable antimony)	—	—	—	—	—
Smelter:					
Primary	664	621	331	377	260
Secondary	3,810	4,370	4,090	4,140	4,000
Imports for consumption:					
Ore and concentrates	119	61	96	121	130
Oxide	16,100	17,800	19,200	17,300	14,000
Unwrought, powder	7,110	6,810	6,320	6,670	5,500
Waste and scrap ¹	41	16	202	17	8
Exports:					
Ore and concentrates ¹	12	46	38	9	8
Oxide	1,330	1,600	1,750	1,570	1,400
Unwrought, powder	446	643	497	370	290
Waste and scrap ¹	177	11	9	14	14
Consumption, apparent ²	25,900	27,400	27,700	26,400	22,000
Price, metal, average, dollars per pound ³	3.35	3.98	3.88	3.90	3.98
Employment, plant, number ^e	27	27	27	27	27
Net import reliance ⁴ as a percentage of apparent consumption	83	82	84	83	81

Recycling: The bulk of secondary antimony is recovered at secondary lead smelters as antimonial lead, most of which was generated by, and then consumed by, the lead-acid battery industry.

Import Sources (2016–19): Ore and concentrates: Italy, 55%; China, 31%; India, 7%; Mexico, 4%; and other, 3%. Oxide: China, 69%; Belgium, 10%; Bolivia and Thailand, 6% each; and other, 9%. Unwrought metal and powder: China, 46%; India, 20%; Vietnam, 11%; the United Kingdom, 6%; and other, 17%. Total metal and oxide: China, 63%; Belgium, 7%; Thailand, 6%; India, 5%; and other, 19%.

Tariff:	Item	Number	Normal Trade Relations 12–31–20
	Ore and concentrates	2617.10.0000	Free.
	Antimony oxide	2825.80.0000	Free.
	Antimony and articles thereof:		
	Unwrought antimony; powder	8110.10.0000	Free.
	Waste and scrap	8110.20.0000	Free.
	Other	8110.90.0000	Free.

Depletion Allowance: 22% (domestic), 14% (foreign).

Government Stockpile:⁵

Material	Inventory as of 9–30–20	FY 2020		FY 2021	
		Potential acquisitions	Potential disposals	Potential acquisitions	Potential disposals
Antimony	90.16	1,100	—	1,100	—

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Events, Trends, and Issues: China continued to be the leading global antimony producer in 2020 and accounted for more than 52% of global mine production. Owing to the global COVID-19 pandemic and the consequent very tight supply of antimony raw materials, operations at China's refineries were constrained. According to China's customs data, China imported 30% less of antimony ore and concentrates from January through August 2020 than for the same period of 2019. This caused a supply shortage of antimony ingots on the market and the antimony price increased to about \$4.00 per pound in 2020. In 2020, China imported 83% less unwrought antimony than in the previous year. Exports of China's unwrought antimony and antimony oxide fell by 24% and 12%, respectively.

World Mine Production and Reserves: Reserves for Canada and Kyrgyzstan were revised based on Government and industry reports.

	Mine production		Reserves ⁶
	2019	2020 ^e	
United States	—	—	⁷ 60,000
Australia	2,030	2,000	⁸ 140,000
Bolivia	3,000	3,000	310,000
Burma	6,000	6,000	NA
Canada	1	1	78,000
China	89,000	80,000	480,000
Ecuador	1	1	NA
Guatemala	25	25	NA
Iran	500	500	NA
Kazakhstan	300	300	NA
Kyrgyzstan	—	—	260,000
Laos	140	100	NA
Mexico	300	300	18,000
Pakistan	—	—	26,000
Russia (recoverable)	30,000	30,000	350,000
Tajikistan	28,000	28,000	50,000
Turkey	2,400	2,000	100,000
Vietnam	310	300	NA
World total (rounded)	162,000	153,000	1,900,000

World Resources:⁶ U.S. resources of antimony are mainly in Alaska, Idaho, Montana, and Nevada. Principal identified world resources are in Australia, Bolivia, China, Mexico, Russia, South Africa, and Tajikistan. Additional antimony resources may occur in Mississippi Valley-type lead deposits in the Eastern United States.

Substitutes: Selected organic compounds and hydrated aluminum oxide are substitutes as flame retardants. Chromium, tin, titanium, zinc, and zirconium compounds substitute for antimony chemicals in enamels, paint, and pigments. Combinations of calcium, copper, selenium, sulfur, and tin are substitutes for alloys in lead-acid batteries.

^eEstimated. NA Not available. — Zero.

¹Gross weight.

²Defined as primary production + secondary production from old scrap + imports of antimony in oxide and unwrought metal, powder – exports of antimony in oxide and unwrought metal, powder + adjustments for Government stock changes.

³New York dealer price for 99.65% metal, cost, insurance, freight U.S. ports. Source: Platts Metals Week.

⁴Defined as imports of antimony in oxide and unwrought metal, powder – exports of antimony in oxide and unwrought metal, powder + adjustments for Government stock changes.

⁵See Appendix B for definitions.

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

⁷Company-reported probable reserves for the Stibnite Gold Project in Idaho.

⁸For Australia, Joint Ore Reserves Committee-compliant reserves were 64,600 tons.