

ANTIMONY

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

Domestic Production and Use: In 2019, 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 2019. 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 2019, based on the average New York dealer price for antimony, was about \$34 million. Recycling supplied about 14% of estimated domestic consumption, and the remainder came mostly from imports. The value of antimony consumption in 2019, based on the average New York dealer price, was about \$234 million. The estimated distribution of domestic primary antimony consumption was as follows: nonmetal products, including ceramics and glass and rubber products, 22%; flame retardants, 40%; and metal products, including antimonial lead and ammunition, 39%.

Salient Statistics—United States:	2015	2016	2017	2018	2019^e
Production:					
Mine (recoverable antimony)	—	—	—	—	—
Smelter:					
Primary	645	664	621	331	370
Secondary	3,740	3,810	^e 3,800	^e 4,000	4,000
Imports for consumption:					
Ore and concentrates	308	119	61	96	140
Oxide	16,700	16,100	17,900	19,200	17,000
Unwrought, powder, waste and scrap ¹	5,790	7,150	6,830	6,500	7,200
Exports:					
Ore and concentrates ¹	31	12	46	38	10
Oxide	1,760	1,330	1,600	1,750	1,500
Unwrought, powder, waste and scrap ¹	1,440	623	653	506	280
Consumption, apparent ²	23,500	28,500	28,700	28,400	27,000
Price, metal, average, dollars per pound ³	3.27	3.35	3.98	3.88	3.90
Stocks, yearend	11,100	8,360	6,540	6,080	6,000
Employment, plant, number (yearend) ^e	27	27	27	27	27
Net import reliance ⁴ as a percentage of apparent consumption	81	84	85	84	84

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 (2015–18): Metal: China, 52%; India, 20%; Vietnam, 8%; United Kingdom, 6%; and other, 14%. Ore and concentrate: Italy, 76%; China, 17%; Mexico, 4%; Bosnia and Herzegovina, 1%; and other, 2%. Oxide: China, 64%; Belgium, 10%; Thailand, 10%; Bolivia, 7%; and other, 9%.

Tariff: Item	Number	Normal Trade Relations 12–31–19
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 Antimony was added to the National Defense Stockpile in December 2018.

Material	Inventory As of 9–30–19	FY 2019		FY 2020	
		Potential Acquisitions	Potential Disposals	Potential Acquisitions	Potential Disposals
Antimony	73.5	1,100	—	1,100	—

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Events, Trends, and Issues: One company operated a smelter in Montana that produced antimony metal and oxides from imported intermediate products (antimony oxide and sodium antimonate) primarily from a smelter in Mexico that processed concentrates from mines in Australia and Mexico.

China continued to be the leading global antimony producer in 2019 and accounted for more than 60% of global mine production. Beginning in 2018, many large-scale producers reduced production, and many small-scale producers were put on care-and-maintenance status in response to stricter environmental standards from Provincial and National Governments. In 2019, producers in Guizhou, Hunan, and Yunnan Provinces maintained a steady production rate after their smelters completed upgrades to meet the environmental standards. However, it was reported some mines had begun stockpiling concentrates, which lead to the suspension of operations at several smelters in Lengshuijiang area, Hunan Province, in August 2019. In September 2019, one of China's largest mining and metal-producing state-owned companies was the only bidder on the inventory of 18,600 tons of antimony and rare earths from the defunct Fanya Metal Exchange.

World Mine Production and Reserves: Reserves for Pakistan were revised based on Government reports.

	Mine production		Reserves ⁶
	2018	2019 ^e	
United States	—	—	⁷ 60,000
Australia	2,170	2,000	⁸ 140,000
Bolivia	3,110	3,000	310,000
Burma	2,640	3,000	NA
China	89,600	100,000	480,000
Ecuador	50	50	NA
Guatemala	25	25	NA
Honduras	12	10	NA
Iran	600	600	NA
Kazakhstan	300	300	NA
Kyrgyzstan	370	400	NA
Laos	300	300	NA
Mexico	260	300	18,000
Pakistan	28	30	26,000
Russia (recoverable)	30,000	30,000	350,000
Tajikistan	15,200	16,000	50,000
Turkey	2,400	3,000	100,000
Vietnam	240	240	NA
World total (rounded)	147,000	160,000	1,500,000

World Resources: 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 + net import reliance.

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

⁴Defined as imports of antimony in oxide, unwrought metal, powder, waste and scrap – exports of antimony in oxide, unwrought metal, powder, waste and scrap + adjustments for industry 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 64,300 tons.