NIOBIUM (COLUMBIUM)

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

Domestic Production and Use: Significant U.S. niobium mine production has not been reported since 1959. Companies in the United States produced niobium-containing materials from imported niobium concentrates, oxides, and ferroniobium. Niobium was consumed mostly in the form of ferroniobium by the steel industry and as niobium alloys and metal by the aerospace industry. Major end-use distribution of domestic niobium consumption was estimated as follows: steels, about 77%, and superalloys, about 23%. The estimated value of niobium imports was $525 million.

Salient Statistics—United States:	2021	2022	2023	2024	2025[e]
Production, mine	—	—	—	—	—
Imports for consumption[1]	8,230	9,110	10,100	9,820	10,000
Exports[1]	992	667	951	485	420
Shipments from Government stockpile[2]	−1	—	NA	NA	NA
Consumption:[e]					
Apparent[3]	7,240	8,440	9,100	9,340	9,900
Reported[4]	6,110	7,230	7,110	6,600	6,700
Price, average unit value, ferroniobium, dollars per kilogram[5]	21	25	25	26	26
Net import reliance[3] as a percentage of apparent consumption	100	100	100	100	100

Recycling: Niobium was recycled when niobium-bearing steels and superalloys were recycled; scrap recovery, specifically for niobium content, was negligible. The amount of niobium recycled was not available, but it may have been as much as 20% of apparent consumption.

Import Sources (2021–24): Niobium and tantalum ores and concentrates: Australia, 62%; Congo (Kinshasa), 9%; Mozambique, 9%; United Arab Emirates, 5%; and other, 15%. Niobium oxide: Brazil, 89%; Estonia, 4%; Thailand, 4%; and other, 3%. Ferroniobium and niobium metal: Brazil, 65%; Canada, 31%; and other, 4%. Total imports: Brazil, 67%; Canada, 28%; and other, 5%. Of U.S. niobium material imports (by niobium content), 68% was ferroniobium, 22% was niobium metal, 9% was niobium oxide, and 1% was niobium ores and concentrates.

Tariff: Item	Number	Normal Trade Relations 12–31–25
Synthetic tantalum-niobium concentrates	2615.90.3000	Free.
Niobium ores and concentrates	2615.90.6030	Free.
Niobium oxide	2825.90.1500	3.7% ad valorem.
Ferroniobium:		
Less than 0.02% phosphorus or sulfur, or less than 0.4% silicon	7202.93.4000	5% ad valorem.
Other	7202.93.8000	5% ad valorem.
Niobium:		
Waste and scrap[6]	8112.92.0700	Free.
Powders and unwrought metal	8112.92.4000	4.9% ad valorem.
Other[6]	8112.99.9100	4% ad valorem.

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

Government Stockpile:[7]

	FY 2025		FY 2026	
Material	Potential acquisitions	Potential disposals	Potential acquisitions	Potential disposals
Ferroniobium	136	—	NA	NA

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NIOBIUM (COLUMBIUM)

Events, Trends, and Issues: In 2025, U.S. niobium apparent consumption (measured in niobium content) was estimated to be 9,900 tons, a 6% decrease from that in 2024. One domestic company developing its niobium, scandium, and titanium project in Nebraska continued to secure financing in 2025. In August, the U.S. Department of War awarded $10 million to the company to support the establishment of a vertically integrated domestic supply chain for scandium alloy production. Although the award was directed toward scandium alloy supply chain development, advancements to the project were also expected to support development of the company's niobium and titanium operations. Once operational, the site would be the only niobium mine and primary niobium-processing facility in the United States.

Brazil continued to be the world's leading niobium producer, accounting for approximately 93% of global production, followed by Canada with 5%. According to international trade statistics under the Harmonized System code 7202.93 (ferroniobium), Brazil's total exports in 2024 were 92,000 tons and were 63,200 tons from January through August 2025. Most of Brazil's exports went to China (49%), followed by the Netherlands (17%), Singapore (9%), and the Republic of Korea and the United States (8% each).

World Mine Production and Reserves: Reserves for Brazil, Canada, and Russia were revised based on company and Government reports.

	Mine production		Reserves[8]
	2024	2025[e]	
United States	—	—	210,000
Brazil	104,000	104,000	14,000,000
Canada	[e]6,900	6,000	640,000
China	[e]44	40	6,500,000
Congo (Kinshasa)	[e]930	970	NA
Russia	300	300	3,000
Rwanda	[e]210	200	NA
Other countries	[e]160	120	NA
World total (rounded)	112,000	112,000	>21,000,000

World Resources:[8] World resources of niobium are more than adequate to supply projected needs. Most of the world's identified resources of niobium occur as pyrochlore in carbonatite (igneous rocks that contain more than 50%-by-volume carbonate minerals) deposits and are outside the United States.

Substitutes: The following materials can be substituted for niobium, but a performance loss or higher cost may ensue: ceramic matrix composites, molybdenum, tantalum, and tungsten in high-temperature (superalloy) applications; molybdenum, tantalum, and titanium as alloying elements in stainless and high-strength steels; and molybdenum and vanadium as alloying elements in high-strength low-alloy steels.

[e]Estimated. NA Not available. — Zero.

[1]Imports and exports include the estimated niobium content of ferroniobium, niobium and tantalum ores and concentrates, niobium oxide, and niobium powders and unwrought metal. Niobium content was estimated assuming the following: 28% niobium oxide (Nb_2O_5) content in niobium ores and concentrates; 10% Nb_2O_5 content in tantalum ores and concentrates and synthetic concentrates; 100% niobium content in unwrought niobium metal (powders and other); and 65% niobium content in ferroniobium. Nb_2O_5 is 69.904% niobium by weight.

[2]Defined for 2021–22 as change in total inventory from prior yearend inventory. If negative, increase in inventory. Beginning in 2023, Government stock changes no longer included.

[3]Defined for 2021–22 as production + imports − exports ± adjustments for Government and industry stock changes. Beginning in 2023, Government stock changes no longer included.

[4]Only includes ferroniobium and nickel niobium.

[5]Unit value is weighted average unit value of gross weight of U.S. ferroniobium trade (imports plus exports).

[6]This category includes niobium-containing material and other material.

[7]See Appendix B for definitions. For fiscal year 2026, the Annual Materials Plan was not released.

[8]See Appendix C for resource and reserve definitions and information concerning data sources.