TANTALUM

(Data in thousand kilograms of tantalum content, unless noted)

Domestic Production and Use: There has been no significant tantalum-mining industry since 1959, with the exception of small unreported quantities of tantalum-bearing concentrates produced in 1989-92. Most metal, alloys, and compounds were produced by four companies; tantalum units were obtained from imported concentrates and metal, and from foreign and domestic scrap. Tantalum was consumed mostly in the form of metal powder, ingot, fabricated forms, compounds, and alloys. The major end use for tantalum was in the production of electronic components, about 60%, mainly tantalum capacitors. The value of tantalum consumed in 1995 was estimated at about $160 million.

Salient Statistics—United States:	1991	1992	1993	1994	1995[e]
Production, mine	([1])	([1])	—	—	—
Imports for consumption, concentrate, tin slags, and other[2]	NA	NA	NA	NA	NA
Exports, concentrate, metal, alloys, waste, and scrap[e]	180	150	170	190	200
Consumption: Reported, raw material	NA	NA	NA	NA	NA
Apparent	370	375	410	430	470
Price, tantalite, dollars per pound[3]	30.06	28.19	26.41	26.24	26.90
Stocks, industry, processor, yearend	NA	NA	NA	NA	NA
Employment, processor	NA	NA	NA	NA	NA
Net import reliance[4] as a percent of apparent consumption	86	85	85	80	80

Recycling: Combined prompt industrial and obsolete scrap consumed represented about 20% of apparent consumption.

Import Sources (1991-94): Australia, 26%; Germany, 18% (majority of imports of unknown origin); Canada, 6%; Thailand, 6%; and other, 44%.

Tariff: Item	Number	Most favored nation (MFN) 12/31/95	Non-MFN[5] 12/31/95
Synthetic tantalum-columbium concentrates	2615.90.3000	Free	30% ad val.
Tantalum ores and concentrates	2615.90.6060	Free	Free.
Tantalum oxide	2825.90.9000	3.7% ad val.	25% ad val.
Potassium fluotantalate	2826.90.0000	3.1% ad val.	25% ad val.
Tantalum, unwrought:			
Waste and scrap	8103.10.3000	Free	Free.
Powders	8103.10.6030	3.5% ad val.	25% ad val.
Alloys and metal	8103.10.6090	3.5% ad val.	25% ad val.
Tantalum, wrought	8103.90.0000	5.3% ad val.	45% ad val.

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

Government Stockpile: The uncommitted inventories shown below include a negligible quantity in nonstockpile-grade metal and 456,000 kilograms in nonstockpile-grade minerals. The stockpile also contained 86,000 kilograms in tantalum metal ingots and 74,000 kilograms in both minerals and tantalum oxide with status (inventory) not yet determined.

Stockpile Status—9-30-95

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposals Jan.-Sept. 95
Tantalum:				
Carbide powder	13	—	—	—
Metal	159	—	—	—
Minerals	1,130	—	—	—

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TANTALUM

Events, Trends, and Issues: Overall consumption of tantalum continued to improve. U.S. sales of tantalum capacitors for the first one-half-year increased by more than 40% compared with that of the similar period in 1994. For the same period, imports for consumption of tantalum mineral concentrates decreased by about 15%. Industry sources indicated that recycled and secondary materials were getting more attention as a source of tantalum supply. Recycled and secondary tantalum-bearing materials reportedly accounts for an estimated 25% of total western world tantalum supply. The published spot price for tantalite ore, which began the year at a range of $25.50 to $27.00 per pound of contained pentoxide, rose to $26.50 to $27.80 in early July where it remained through mid-October. Industry sources indicated that tantalum mill products sold at an average of about $170 per pound, and that tantalum capacitor-grade powder sold at an average of about $150 per pound.

It is estimated that in 1996 domestic mine production will be zero and U.S. apparent consumption will be less than 500,000 kilograms.

World Mine Production, Reserves, and Reserve Base:

	Mine production[e 6]		Reserves[e 7]	Reserve base[e 7]
	1994	1995		
United States	—	—	—	Negligible
Australia	238	250	4,500	9,100
Brazil	50	50	900	1,400
Canada	28	30	1,800	2,300
Malaysia	—	—	900	1,800
Nigeria	2	2	3,200	4,500
Rwanda	2	2	NA	NA
Thailand	—	—	7,300	9,100
Zaire	1	2	1,800	4,500
Zimbabwe	2	2	NA	NA
Other countries[8]	2	2	1,400	1,800
World total (may be rounded)	325	340	22,000	35,000

World Resources: Most of the world's resources of tantalum occur outside the United States. On a worldwide basis, identified resources of tantalum are considered adequate to meet projected needs. These resources are largely in Australia, Brazil, Canada, Egypt, Malaysia, Nigeria, Thailand, and Zaire. The United States has about 1.4 million kilograms of tantalum resources in identified deposits, most of which were considered uneconomic at 1995 prices.

Substitutes: The following materials can be substituted for tantalum, but usually with less effectiveness: columbium in superalloys and carbides; aluminum and ceramics in electronic capacitors; glass, titanium, zirconium, columbium, and platinum in corrosion-resistant equipment; and tungsten, rhenium, molybdenum, iridium, hafnium, and columbium in high-temperature applications.

[e]Estimated. NA Not available.

[1]A small unreported quantity was produced.

[2]Metal, alloys, synthetic concentrates; exclusive of waste and scrap.

[3]Average value, contained tantalum pentoxides, 60% basis.

[4]Defined as imports - exports + adjustments for Government and industry stock changes.

[5]See Appendix B.

[6]Excludes production of tantalum contained in tin slags.

[7]See Appendix C for definitions.

[8]Excludes any production from Bolivia, China, and countries in the Former Soviet Union.