

Mineral Industry Surveys

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TUNGSTEN IN DECEMBER 2022

U.S. reported consumption of tungsten concentrate, net production of intermediate tungsten products, including metal powder and tungsten carbide powder, and industry stocks of tungsten materials were withheld to avoid disclosing company proprietary data.

On December 31, 2022, the U.S. Government stockpile inventory of tungsten concentrates held by DLA Strategic Materials decreased slightly from that on November 30, 2022 (table 1).

In 2022, the amount of tungsten contained in U.S. imports of selected materials totaled 10,700 metric tons (t), a 17% increase from 9,200 t in 2021. Based on contained tungsten, China was the leading source of U.S. tungsten imports, supplying 30% in 2022. The balance of U.S. imports was supplied by Bolivia, 12%; Vietnam, 11%; Austria, 10%; Canada and Germany, 7% each; Taiwan, 5%; and other countries, 18% (table 2). The amount of tungsten contained in U.S. exports of selected

materials in 2022 was 2,380 t, slightly less than the 2,420 t exported in 2021 (table 3).

Prices

The following tungsten price comparisons are U.S. Geological Survey calculations based on Argus Metals International prices. The December 2022 monthly average price for tungsten concentrate, ex works China, was 6% higher than that in November 2022 and was 5% lower than that in December 2021. The December 2022 monthly average price for ammonium paratungstate, European Union market, was unchanged from that in November 2022 and was 5% higher than that in December 2021 (fig. 1).

Industry News

Masan High-Tech Materials Corp. (Vietnam) (MHT) has been conducting research and planning for the construction of a

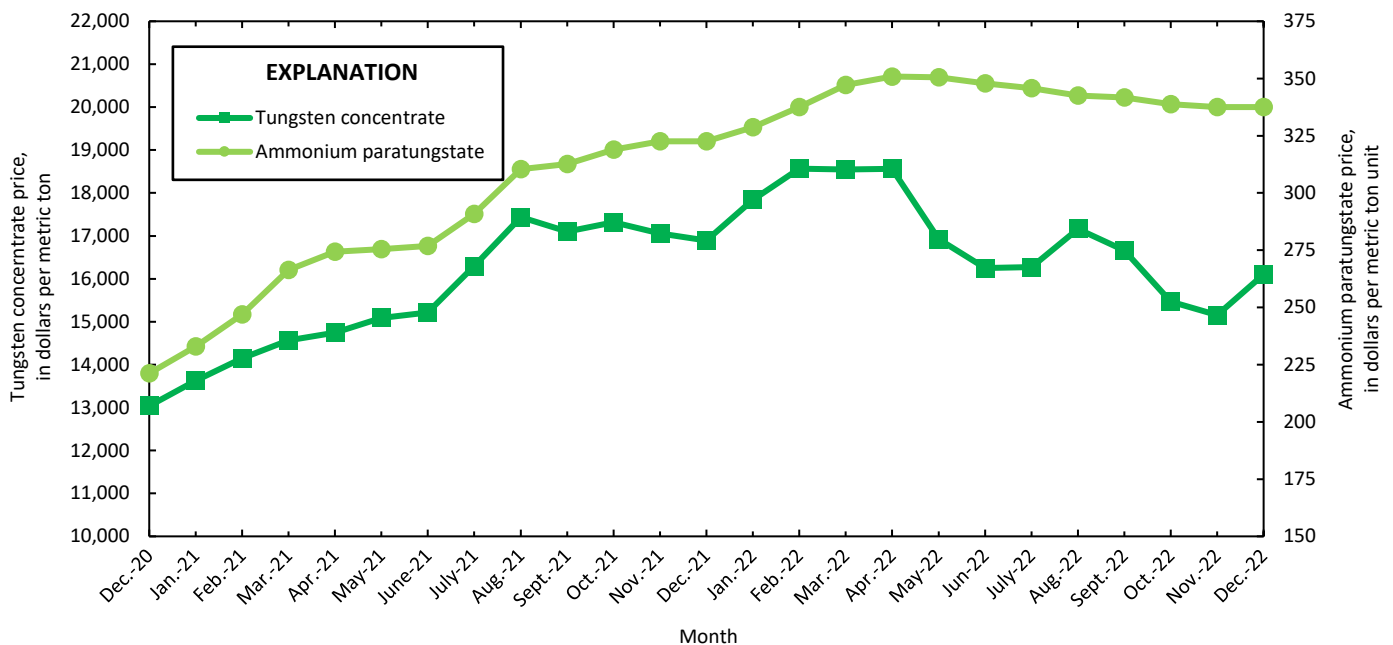


Figure 1. Monthly average prices for tungsten concentrate and ammonium paratungstate for December 2020 through December 2022. Source: Argus Metals International.

tungsten recycling plant in Vietnam. MHT became a leading global recycler of tungsten in 2020 when it acquired H.C. Starck GmbH's tungsten business, including Starck's Goslar tungsten processing plant in Germany, which consumes scrap as its raw material feed. MHT planned to replicate the technology from Goslar at a new facility to be built at its Nui Phao Mine in Thai Nguyen. The project will require Government approval of tungsten scrap imports to ensure a stable supply of feed material (Masan High-Tech Materials Corp., 2022, p. 24, 85; 2023, p. 5, 7–9, 16).

References Cited

Masan High-Tech Materials Corp., 2022, Annual & sustainability report 2021: Hanoi, Vietnam, Masan High-Tech Materials Corp., 305 p. (Accessed

February 15, 2023, at https://masanhightechmaterials.com/investor_center/annual-sustainability-report-2021/.)
Masan High-Tech Materials Corp., 2023, Pulse—MHT Global E-Newsletter: Hanoi, Vietnam, Masan High-Tech Materials Corp., Quarter 4, 2022, 37 p. (Accessed February 15, 2023, at <https://masanhightechmaterials.com/newsletter/pulse-mht-global-e-newsletter-q4-2022/>.)

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TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products		
	Reported consumption	Imports for consumption	Stocks, end of period		Net production ⁴	Stocks, end of period	
			Industry ²	U.S. Government ³		Industry ⁵	U.S. Government ³
2021:							
December	W	252	W	6,570	W	W	--
January–December	W	1,590	W	6,570	W	W	--
2022:							
January	W	125	W	6,570	W	W	--
February	W	82	W	6,390	W	W	--
March	W	96	W	6,300	W	W	--
April	W	181	W	6,170	W	W	--
May	W	256	W	6,080	W	W	--
June	W	156	W	6,080	W	W	--
July	W	224	W	6,080	W	W	--
August	W	134	W	6,000	W	W	--
September	W	245	W	6,000	W	W	--
October	W	202	W	6,000	W	W	--
November	W	197	W	5,970	W	W	--
December	W	239	W	5,880	W	W	--
January–December	W	2,140	W	5,880	W	W	--

W Withheld to avoid disclosing company proprietary data. --Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Consumer stocks.

³Data from the Defense Logistics Agency Strategic Materials.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Producer stocks of tungsten metal powder and tungsten carbide powder.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY OR LOCALITY¹

(Metric tons, tungsten content)

Period and country or locality of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2021	1,590	1,040	26	1,290	1,900	3,360	9,200	XX
2022:								
October	202	207	--	195	136	373	1,110	8,830
November	197	122	5	144	199	293	959	9,780
December:								
Australia	--	--	--	--	--	--	--	23
Austria	--	--	--	56	44	3	103	1,040
Bolivia	192	--	--	--	--	--	192	1,250
Canada	--	--	--	62	23	(3)	85	799
China	--	132	--	68	59	43	303	3,210
Czechia	--	--	--	20	--	(3)	20	135
Estonia	--	--	--	--	--	--	--	7
France	--	--	--	--	--	(3)	(3)	22
Germany	--	46	--	(3)	--	22	67	798
India	--	--	--	--	--	1	1	118
Israel	--	--	--	6	--	(3)	6	111
Japan	(3)	--	--	(3)	(3)	7	7	176
Korea, Republic of	--	--	--	12	--	(3)	12	278
Mongolia	--	--	--	--	--	--	--	34
Philippines	--	--	--	--	--	15	15	86
Portugal	10	--	--	--	--	--	10	297
Russia	25	--	--	--	--	--	25	297
Spain	11	--	--	--	--	(3)	11	110
Taiwan	--	--	--	--	--	47	47	546
Thailand	--	--	--	--	--	--	--	114
United Kingdom	--	--	--	(3)	--	(3)	(3)	35
Vietnam	--	--	--	14	--	12	26	1,210
Other	--	--	3	(3)	1	1	5	24
Total	239	178	3	239	126	153	938	10,700
January–December	2,140	1,200	52	2,010	1,990	3,340	10,700	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than ½ unit.

Note: Imports of waste and scrap in December 2022 totaled 405 metric tons, tungsten content, to give a January–December total of 3,620 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 3
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY OR LOCALITY¹

(Metric tons, tungsten content)

Period and country or locality of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total, year to date
2021	441	116	550	422	892	2,420	XX
2022:							
October	25	1	57	35	30	148	1,980
November	38	--	78	39	32	187	2,170
December:							
Australia	--	--	(4)	8	(4)	8	46
Austria	--	--	--	--	(4)	(4)	55
Belgium	--	--	--	1	--	1	15
Brazil	--	--	(4)	(4)	(4)	(4)	12
Canada	--	--	48	8	1	57	851
Chile	--	--	--	--	(4)	(4)	5
China	--	--	(4)	(4)	2	3	118
Costa Rica	--	--	--	--	2	2	33
Czechia	--	--	--	1	(4)	1	12
Denmark	--	--	--	--	(4)	(4)	5
France	--	--	(4)	(4)	1	1	15
Germany	--	--	2	17	(4)	19	171
India	--	--	1	(4)	(4)	1	24
Indonesia	--	--	1	(4)	--	1	9
Israel	--	--	--	2	1	2	29
Japan	--	--	(4)	(4)	(4)	1	46
Korea, Republic of	(4)	--	--	6	(4)	6	23
Malaysia	--	--	--	--	(4)	(4)	8
Mexico	--	--	3	1	8	12	137
Netherlands	20	--	(4)	--	(4)	20	110
Philippines	--	--	--	--	8	8	18
Saudi Arabia	--	--	--	(4)	--	(4)	7
Singapore	--	--	(4)	(4)	(4)	1	8
South Africa	--	--	1	--	(4)	2	5
Spain	--	--	--	--	--	--	6
United Kingdom	--	--	--	(4)	1	1	31
Vietnam	52	--	--	--	--	52	529
Other	--	--	1	3	2	6	48
Total	72	--	58	47	28	206	2,380
January–December	609	8	787	512	461	2,380	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Exports of waste and scrap in December 2022 totaled 38 metric tons, tungsten content, to give a January–December total of 1,910 metric tons, tungsten content.

Source: U.S. Census Bureau.