

Mineral Industry Surveys

For information, contact:

Kim B. Shedd, Tungsten Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4974, Fax: (703) 648-7757
E-mail: kshed@usgs.gov

Heather A. Geissler (Data)
Telephone: (703) 648-7978
Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999
Internet: <http://minerals.usgs.gov/minerals>

TUNGSTEN IN OCTOBER 2001

U.S. net production of tungsten metal powder and tungsten carbide powder produced from metal powder during January through October 2001 was 8% higher than that produced during the same period in 2000, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in January through October 2001 was approximately the same as that during the same period in 2000. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for October 2001 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than

three significant digits. Totals and percentages were calculated by using unrounded data.

Update

Prices for tungsten ore concentrates in dollars per metric ton unit from Metal Bulletin are listed below. Prices in dollars per short ton unit were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO₃) content of 65%. The prices for November 1 to 30, 2001, are as follows:

Low—\$49/metric ton unit WO₃ (\$44/short ton unit WO₃)
High—\$62/metric ton unit WO₃ (\$56/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production 4/	Reported consumption 5/	Stocks, end of period	
			Industry 2/	U.S. Government 3/				Industry 6/	U.S. Government 3/
2000:									
October	W	342	W	33,500	448	778	758 r/	1,080	2,180
November	W	97	W	33,500	444	814	724 r/	1,140	2,180
December	W	190	W	33,400	413	761	707 r/	1,160	2,110
January-December	W	2,370	XX	XX	5,040	9,780 7/	9,100 r/	XX	XX
2001:									
January	W	151	W	33,400	476	907	825 r/	W	2,050
February	W	112	W	33,200	483	838	770 r/	W	1,840
March	W	92	W	32,600	488	859	748 r/	W	1,740
April	W	179	W	32,500	594	985	779 r/	W	1,710
May	W	302	W	32,300	450	866	739 r/	1,030	1,610
June	W	288	W	32,300	477	904	696 r/	1,040	1,540
July	W	275	W	32,300	524	862	769 r/	917	1,490
August	W	247	W	32,100	490	915	766 r/	872	1,440
September	W	246	W	32,100	383	888	747 r/	795	1,410
October	W	NA	W	NA	406	879	740	796	NA
Total	W	NA	XX	XX	4,770	8,900	7,580	XX	XX

r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Reported by consumers.

3/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

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

5/ Includes estimates and scrap.

6/ Data for tungsten metal powder and tungsten carbide powder reported by producers.

7/ Revised after the Mineral Industry Surveys Tungsten 2000 Annual Review was published.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
2000:			
October	W	841	146
November	W	822	121
December	W	749	W
January-December 3/	1,270	7,590	XX
2001:			
January	W	905	W
February	W	W	W
March	W	890	151
April	W	927	W
May	W	W	119
June	W	913	88
July	W	853	100
August	W	970	119
September	W	758	95
October	W	778	94
Total 3/	W	6,990	XX

W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Producers and consumers.

3/ Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product	Net production 2/				Stocks at end of period		
	2000	2001		Year to date	2001		
		September	October		2000	September	October
Metal powder	5,290 3/	485	480	4,580	621	456	470
Tungsten carbide powder (made from metal powder)	4,490	403	399	4,320	538	339	326
Total 4/	9,780 3/	888	879	8,900	1,160	795	796

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

2/ Gross production less quantity used to make other products in table.

3/ Revised after the Mineral Industry Surveys Tungsten 2000 Annual Review was published.

4/ Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE IN 2001 1/ 2/ 3/

(Metric tons, tungsten content)

End use	September	October	Year to date
Steels	43	37	442
Superalloys	30	40	309
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	492	479	4,890
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	183 r/	183	1,940
Total	747 r/	740	7,580

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

2/ Does not include materials used in making primary tungsten products.

3/ Includes estimates.

4/ Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

5/ Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/ 2/ 3/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 4/	Total
Consumption:						
2000:						
January-December 5/ r/	375	2,260	5,980	401	73	9,100
Year 6/	388	2,270	5,980	459	89	9,180
2001:						
September	41	175 r/	495	28	8	747 r/
October	35	179	479	39	8	740
January-October	420	W	4,910	318	W	7,580
Stocks:						
2000:						
December 5/	33	29	381	44	9	495
2001:						
January	29	16	391	43	11	491
February	32	18	404	40	11	506
March	26	13	401	34	11	485
April	23	16	403	29	11	482
May	27	17	399	29	11	484
June	17	14	403	36	11	482
July	39	14	407	30	11	502
August	32	13	398	37	11	490
September	39	14	400	30	11	493
October	44	17	392	31	11	496

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in summation and/or "Total."

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

2/ Does not include materials used in making primary tungsten products.

3/ Includes estimates.

4/ Includes tungsten chemicals.

5/ Data based on monthly reports.

6/ Includes annual reports.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other 2/	Total	Total year to date
2000	2,370	2,270	470	593	1,000	2,480	9,190	XX
2001:								
July	275	242	81	54	55	229	936	5,610
August	247	196	44	81	90	322	980	6,590
September:								
Australia	--	--	--	--	--	--	--	(3/)
Austria	--	--	--	--	--	2	2	64
Belgium	--	--	--	--	--	(3/)	(3/)	10
Bolivia	68	--	--	--	--	--	68	427
Brazil	--	--	--	--	--	--	--	6
Canada	--	--	--	3	26	--	29	357
China	75	217	15	20	21	59	406	4,480
Czech Republic	--	--	--	--	--	--	--	8
France	--	--	--	--	--	(3/)	(3/)	8
Germany	--	--	--	7	7	7	21	337
Hong Kong	40	--	--	--	--	(3/)	40	221
Hungary	--	--	--	--	--	1	1	6
India	--	--	--	--	--	(3/)	(3/)	16
Ireland	--	--	--	--	--	--	--	(3/)
Israel	--	--	--	2	7	2	11	142
Italy	--	--	--	--	(3/)	(3/)	(3/)	1
Japan	--	--	--	(3/)	--	1	1	88
Korea, Republic of	--	--	--	7	(3/)	--	7	47
Luxembourg	--	--	--	--	--	--	--	16
Malaysia	--	--	--	--	--	(3/)	(3/)	(3/)
Mexico	2	--	--	--	--	--	2	2
Mongolia	13	--	--	--	--	--	13	37
Netherlands	--	--	--	--	--	(3/)	(3/)	3
Peru	21	--	--	--	--	--	21	35
Portugal	20	--	--	--	--	--	20	327
Russia	--	18	--	--	--	(3/)	18	416
Rwanda	--	--	--	--	--	--	--	12
Singapore	--	--	--	--	--	--	--	3
Spain	--	--	--	--	--	--	--	(3/)
Sweden	--	--	--	--	(3/)	(3/)	(3/)	2
Switzerland	--	--	--	--	--	--	--	1
Taiwan	--	--	--	--	--	(3/)	(3/)	1
Thailand	--	--	--	--	--	--	--	40
Uganda	8	--	--	--	--	--	8	32
United Kingdom	--	--	--	20	--	(3/)	20	136
Total	246	235	15	58	62	72	688	7,280
Total, year to date	1,890	2,050	309	706	748	1,580	7,280	XX

XX Not applicable. -- Zero.

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

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

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in September 2001 totaled 77 metric tons, tungsten content, to give a year-to-date total of 814 tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates 2/	Ammonium tungstates	Metal powder 2/	Tungsten carbide powder	Other 3/	Total	Total year to date
2000	70	53	467	969	483	2,040	XX
2001:							
July	9	2	50	142	47	251	2,620
August	11	17	53	189	35	304	2,930
September:							
Australia	--	--	1	1	(4/)	1	16
Austria	--	--	--	--	(4/)	(4/)	9
Belgium	--	--	--	--	(4/)	(4/)	17
Brazil	--	--	(4/)	(4/)	(4/)	1	25
Canada	--	--	1	12	7	20	203
Chile	--	--	(4/)	(4/)	--	(4/)	1
China	3	--	(4/)	(4/)	(4/)	4	18
Colombia	--	--	--	--	1	1	5
Czech Republic	--	--	(4/)	--	--	(4/)	51
Denmark	--	--	--	--	--	--	1
Ecuador	--	--	--	--	--	--	5
France	--	--	1	(4/)	1	2	143
Germany	--	1	19	22	12	54	735
Hong Kong	--	--	(4/)	--	--	(4/)	6
Hungary	--	--	--	--	2	2	11
India	--	--	(4/)	1	2	3	21
Indonesia	--	--	(4/)	--	(4/)	(4/)	4
Ireland	--	--	--	--	(4/)	(4/)	4
Israel	--	--	--	--	(4/)	(4/)	16
Italy	--	--	(4/)	(4/)	1	1	13
Japan	--	--	(4/)	5	3	8	78
Korea, Republic of	--	--	--	1	(4/)	1	18
Malaysia	--	--	--	--	(4/)	(4/)	1
Mexico	--	--	--	(4/)	4	4	58
Netherlands	--	20	--	5	42	67	485
Philippines	--	--	--	--	1	1	3
Russia	32	--	--	--	--	32	32
Singapore	(4/)	--	(4/)	(4/)	(4/)	(4/)	7
South Africa	--	--	--	--	--	--	17
Spain	--	--	(4/)	(4/)	3	3	22
Sweden	--	--	--	54	1	55	394
Switzerland	--	--	(4/)	2	(4/)	2	8
Taiwan	--	--	2	--	1	3	18
Turkey	--	--	--	--	--	--	1
United Arab Emirates	--	--	--	--	--	--	1
United Kingdom	3	--	2	51	(4/)	56	797
Other	--	--	--	(4/)	(4/)	(4/)	6
Total	38	21	28	155	81	323	3,250
Total, year to date	128	178	469	1,680	794	3,250	XX

XX Not applicable. -- Zero.

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

2/ Tungsten content estimated from reported gross weight.

3/ Includes wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

4/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in September 2001 totaled 125 metric tons, tungsten content, to give a year-to-date estimated total of 804 tons, tungsten content.

Source: U.S. Census Bureau.