

Mineral Industry Surveys

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COBALT IN JULY 2001

U.S. consumption of cobalt in January through July 2001 was 4% lower than that during the first 7 months of 2000, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 14% higher during January through June 2001 than that of imports during the same period in 2000. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 59% higher during January through June 2001 than that during the same period in 2000. Trade data for July 2001 will be available in a subsequent issue.

Note

With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

Price

Prices for electrolytic cobalt, in dollars per pound, from Platts Metals Week are listed below.

Price range
9.50-10.00
9.50-10.00
9.40-10.00
9.40-9.90

Month Average price 9.71

TABLE 1 U.S. REPORTED CONSUMPTION OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

		Oxide and		
		other chemical		
Period	Metal 2/	compounds 3/	Scrap	Total
2000:				
July	290	149	216	654
August	280	137	221	638
September	285	147	217	649
October	288	153	224	666
November	306	151	223	680
December	290	144	219	653
January-July r/	2,010	1,110	1,570	4,690
January-December 4/	3,460	1,850	2,680	7,980
2001:				
January	294	142	211	647
February	301	145	211	657
March	319 r/	143	210	671 r/
April	306	122	209	638
May	296	120 r/	210	625
June	279 r/	147 r/	209	636 r/
July	301	117	209	627
January-July	2,100	935	1,470	4,500

r/ Revised.

- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Includes metal powder.
- 3/ Data may include other cobalt materials.
- 4/ Data based on monthly reports.

 $\label{eq:table 2} TABLE~2$ U.S. REPORTED CONSUMPTION OF COBALT, BY END USE 1/

(Metric tons, contained cobalt)

	20	000	20	2001		
	January-	January-		January-		
End use	July	December 2/	July	July 3/		
Steel	89 r/	137	16	132		
Superalloys	2,050 r/	3,580	309	2,080		
Magnetic alloys	438	752	53	418		
Other alloys 4/	W	W	W	W		
Cemented carbides 5/	478 r/	771	65	465		
Chemical and ceramic uses 6/	1,460	2,450	160	1,230		
Miscellaneous and unspecified	169	290	24	176		
Total	4,690 r/	7,980	627	4,500		

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with

[&]quot;Miscellaneous and unspecified."

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

^{2/} Data based on monthly reports.

^{3/} May include revisions to prior months.

^{4/} Includes nonferrous alloys, welding materials, and wear-resistant alloys.

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

^{6/} Includes catalysts, driers in paints or related usage, feed or nutritive additive, glass decolorizer, ground coat frit, pigments, and other uses.

TABLE 3 U.S. REPORTED STOCKS OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

		Industry	2/		
		U.S.			
		Government,			
Period	Metal 3/	compounds 4/	Scrap	Total	metal 5/
2000:	<u></u>				
July	388	220	155	762	11,700
August	348	190	157	695	11,600
September	372	224	159	755	11,100
October	363	206	171	740	11,100
November	368	207	168	742	10,200
December 6/	362	215	166	743	10,200
2001:	_				
January	345	200	165	710	10,200
February	342	200	164	707	9,810
March	338 r/	195	163	696 r/	9,780
April	366	214	163	743	9,120
May	338	211	163	712	8,850
June	302 r/	196 r/	163	662 r/	8,480
July	301	220	163	684	8,420

- r/ Revised.
- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Stocks reported by cobalt processors and consumers.
- 3/ Includes metal powder.
- 4/ Data may include other cobalt materials.
- 5/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.
- 6/ Data based on monthly reports.

$\label{table 4} TABLE~4~$ U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country	Metal	ls 2/	Oxides and h	ydroxides	Salts and con	mpounds 3/	Total cobalt content for	Cobalt content, year to
of origin	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/	the month 5/	date 5/6/
2000:								
June	624,000 7/	\$18,100,000 7/	136,000	\$3,610,000	164,000	\$1,140,000	766,000	4,180,000
July	390,000 7/	11,400,000 7/	121,000	2,990,000	102,000	675,000	505,000	4,690,000
August	476,000 7/	13,800,000 7/	111,000	2,450,000	179,000	1,160,000	603,000	5,290,000
September	892,000	25,800,000	105,000	2,500,000	77,400	459,000	987,000	6,280,000
October	677,000 7/	19,800,000 7/	98,100	2,170,000	168,000	988,000	792,000	7,070,000
November	558,000 7/	15,800,000 7/	125,000	2,920,000	83,500 7/	544,000 7/	670,000	7,740,000
December	689,000	18,600,000	140,000	3,310,000	211,000	1,320,000	847,000	8,590,000
January-December	7,040,000	204,000,000	1,510,000	36,400,000	1,710,000	11,000,000	8,590,000	XX
2001:	, ,	, ,	, ,	, ,	, ,	, ,	, ,	
January	563,000	15,600,000	185,000	4,400,000	80,400	457,000	717,000	717,000
February	714,000 7/	17,000,000 7/	136,000	3,140,000	124,000	699,000	843,000	1,560,000
March	615,000	16,700,000	96,400 7/	2,050,000 7/	256,000	1,320,000	753,000	2,310,000
April	679,000	18,600,000	106,000	2,400,000	234,000	1,240,000	817,000	3,130,000
May	836,000 7/	21,100,000 7/	50,600	1,210,000	80,400	518,000	896,000	4,030,000
June:								
Australia	20,000	465,000					20,000	92,000
Belgium	27,000	699,000	37,000	822,000			53,600	316,000
Brazil	21,100	405,000					21,100	165,000
Canada	58,400	1,610,000					58,400	478,000
China	10,000	226,000					10,000	53,800
Congo (Kinshasa)	54,400	927,000					54,400	366,000
Finland	78,300	2,090,000	96,700	1,610,000	83,800	480,000	171,000	1,040,000
France	875	55,900	7,630	233,000			6,370	25,100
Germany	1,660	97,800					1,660	28,600
India								267
Italy								6,140
Japan	5,000	132,000					5,000	11,200
Korea, Republic of	160	11,400					160	542
Morocco	20,000	408,000			900	6,250	20,200	125,000
Norway	105,000	2,400,000					105,000	523,000
Russia	153,000	4,140,000					153,000	859,000
South Africa	91,400	1,670,000					91,400	385,000
Switzerland		·					·	77
Taiwan	219	6,150					219	5,460
Uganda	31,500	729,000					31,500	47,100
United Kingdom	6,570 7/	137,000 7/	10,500	145,000			14,100	68,900
Zambia	2,290	40,500	´	´			2,290	247,000
Total	687,000	16,300,000	152,000	2,820,000	84,700	486,000	820,000	4,850,000

XX Not applicable. -- Zero.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

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

^{2/} Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder.

^{3/} Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

^{4/} Customs value.

^{5/} Estimated from gross weights.

^{6/} May include revisions to prior months.

^{7/} All or part of these data have been referred to the U.S. Census Bureau for verification.

 ${\it TABLE 5}$ U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

		ought	Other cobal		Wrought co	
Period and country	cobalt	alloys	waste and		cobalt as	
of origin	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
2000:						
June	66,300	\$1,700,000	71,600 4/	\$1,770,000 4/	19,200	\$1,430,000
July	5,290	137,000	55,000 4/	1,620,000 4/	29,500	1,160,000
August	2,600	85,700	52,200 4/	1,090,000 4/	16,600	1,030,000
September	12,000	359,000	83,000 4/	1,660,000 4/	17,500	1,390,000
October	7,490	211,000	96,300 4/	2,180,000 4/	43,400	1,440,000
November	14,000	472,000	58,400 4/	1,720,000 4/	21,500 4/	1,210,000 4
December	6,270	141,000	40,500 4/	986,000 4/	17,100	1,100,000
January-December	188,000	5,190,000	831,000	18,300,000	290,000	15,400,000
2001:						
January	2,200	66,500	122,000 4/	1,880,000 4/	27,500	1,570,000
February	4,920	116,000	77,200 4/	1,620,000 4/	24,900	1,380,000
March	4,090	87,100	49,200 4/	381,000 4/	26,700	1,490,000
April	4,250	91,900	67,000	1,550,000	13,100	839,000
May	8,030	193,000	22,600 4/	823,000 4/	25,100	813,000
June:						
Australia			21,300	294,000		
Belgium	100	3,820	150	4,310	180	8,670
Canada			1,660	14,600	914	150,000
Congo (Kinshasa)	18,900	343,000				
France			5,240 4/	189,000 4/	1,040	66,100
Germany			683	2,870		
Japan	250	18,000	3,480	48,000	2,050	194,000
Russia			5,000 4/	86,500 4/		
Sweden	2,760	70,300				
Switzerland			416 4/	15,300 4/		
United Kingdom	124	9,150	29,500	234,000	10,400	561,000
Total	22,200	445,000	67,400	888,000	14,600	980,000

⁻⁻ Zero.

 $Source:\ U.S.\ Census\ Bureau,\ with\ adjustments\ by\ the\ U.S.\ Geological\ Survey.$

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

^{2/} Includes other intermediate products of cobalt metallurgy; may include other cobalt-bearing materials from which cobalt is extracted, or from which cobalt-containing chemical compounds are manufactured.

^{3/} Customs value

^{4/} All or part of these data have been referred to the U.S. Census Bureau for verification.

TABLE 6 U.S. EXPORTS OF COBALT MATERIALS 1/

(Kilograms, gross weight of material, except as noted)

	Unwrought col		Oxides and hy	droxides	Salts and cor	mpounds 3/	Total cobalt content for	Cobalt content, year to
Period	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/	the month 5/	date 5/6/
2000:								
June	66,000	\$2,770,000	111,000 7/	\$837,000 7/	18,000	\$168,000	150,000	1,100,000
July	152,000	6,580,000	138,000 7/	1,230,000 7/	23,100	219,000	257,000	1,350,000
August	191,000	5,130,000	176,000 7/	1,370,000 7/	18,400	169,000	322,000	1,680,000
September	275,000	8,090,000	201,000 7/	1,780,000 7/	58,500	242,000	434,000	2,110,000
October	65,900	2,430,000	96,900 7/	978,000 7/	46,900	451,000	147,000	2,260,000
November	106,000	4,220,000	62,200 7/	415,000 7/	12,800	146,000	154,000	2,410,000
December	165,000	5,280,000	107,000 7/	646,000 7/	81,200	346,000	261,000	2,670,000
January-December	1,520,000	54,200,000	1,370,000	11,800,000	676,000	3,650,000	2,670,000	XX
2001:								
January	93,500	3,140,000	200,000	1,540,000	26,500	263,000	244,000	244,000
February	216,000	6,020,000	131,000	823,000	13,200	124,000	313,000	557,000
March	166,000	5,700,000	171,000	1,220,000	14,400	90,700	292,000	850,000
April	141,000	4,550,000	210,000	1,530,000	19,500	192,000	298,000	1,150,000
May	220,000	5,590,000	84,200	654,000	26,100	209,000	287,000	1,430,000
June	204,000	5,460,000	116,000 7/	1,070,000 7/	39,000	334,000	297,000	1,730,000

XX Not applicable.

- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ May include other intermediate products of cobalt metallurgy, and unwrought cobalt alloys.
- 3/ Cobalt acetates and cobalt chlorides.
- 4/ Free alongside ship (f.a.s.) value.
- 5/ Estimated from gross weights.
- 6/ Year to date may include revisions to prior months.
- 7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES 1/

(Kilograms, gross weight of material, except as noted)

	Wrought co		Cobalt ore	
	cobait at		concentra	
Period	Quantity	Value 2/	Quantity	Value 2/
2000:				
June	65,300	\$2,940,000	34,800 3/	\$516,000 3/
July	59,700	2,560,000	47,800 3/	1,410,000 3/
August	147,000	5,550,000	31,100 3/	618,000 3/
September	40,300	2,630,000		
October	127,000	5,910,000	91,400 3/	303,000 3/
November	66,600	3,680,000	3,610 3/	298,000 3/
December	50,200	1,650,000	54,300 3/	66,400 3/
January-December	963,000	37,800,000	695,000	3,730,000
2001:				
January	56,500	1,790,000	42,000 3/	169,000 3/
February	89,000	2,070,000		
March	118,000	3,040,000	75,200 3/	477,000 3/
April	55,000	1,860,000	95,000 3/	677,000 3/
May	44,100	2,250,000	23,200 3/	54,900 3/
June	31,300	2,200,000	95,800 3/	63,100 3/

⁻⁻ Zero.

- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Free alongside ship (f.a.s.) value.
- 3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.