

Mineral Industry Surveys

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COBALT IN AUGUST 2000

U.S. consumption of cobalt in January through August 2000 was approximately the same as that during the first 8 months of 1999, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 9% lower during January through July 2000 than during the first 7 months of 1999. The cobalt content of U.S. exports of unwrought cobalt and chemicals during January through July 2000 was 50% higher than that during the first 7 months of 1999. Trade data for August 2000 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 Platt's Metals Week are listed below.

<u>Date</u>	<u>Price range</u>
September 21	15.50-16.50
September 28	17.00-18.00
October 5	17.00-17.75
October 12	16.00-17.00

<u>Month</u>	<u>Average price</u>
September	15.78

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

(Metric tons, contained cobalt)

Period	Metal 2/	Oxide and other chemical compounds 3/	Scrap	Total
1999:				
August	284	152	230	666
September	269	163	223	655
October	282	135	224	641
November	283	121	224	628
December	285	167	220	672
January-August r/	2,270	1,330	1,820	5,420
January-December 4/	3,390	1,910	2,710	8,010
Year p/ 5/	3,780	1,910	2,720	8,420
2000:				
January	276	173	225	675
February	271	149	220	640
March	270	158	233	662
April	284	161	226	671
May	290	166	233	689
June	272	157	228	658
July	284 r/	149	226	658
August	277	136	227	640
January-August	2,220	1,250	1,820	5,290

p/ Preliminary. 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.

5/ Includes annual reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE 1/

(Metric tons, contained cobalt)

End use	1999			2000	
	January- August r/	January- December 2/	Year p/ 3/	August	January- August 4/
Steel	111	154	154	13	98
Superalloys	2,340	3,510	3,830	289	2,360
Magnetic alloys	521	765	794	64	502
Other alloys 5/	W	W	291	W	W
Cemented carbides 6/	502	754	755	63	488
Chemical and ceramic uses 7/	1,730	2,510	2,530	186	1,650
Miscellaneous and unspecified	212	317	64	24	193
Total	5,420	8,010	8,420	640	5,290

p/ Preliminary. 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/ Data based on monthly reports.

3/ Includes annual reports.

4/ May include revisions to prior months.

5/ Includes nonferrous alloys, welding materials, and wear-resistant alloys.

6/ Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

7/ 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)

Period	Industry 2/			Total	U.S. Government, metal 5/
	Metal 3/	Oxide and other chemical compounds 4/	Scrap		
1999:					
August	316	205	150	672	13,400
September	324	213	152	690	13,300
October	333	248	159	741	13,300
November	325	247	156	729	13,200
December 6/	314	231	150	695	13,200
Yearend p/ 7/	322	251	165	739	13,200
2000:					
January	288	225	167	679	13,100
February	307	207	172	687	12,700
March	335	204	160	699	12,100
April	311	207	150	668	12,100
May	329	209	146	684	12,100
June	308	212	145	665	11,700
July	324 r/	220 r/	145	689 r/	11,700
August	305	191	144	641	11,600

p/ Preliminary. 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.

7/ Includes annual reports.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

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

Period and country of origin	Metals 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1999:								
July	550,000	\$22,300,000	81,000	\$2,230,000	147,000	\$1,330,000	648,000	5,220,000
August	297,000	12,300,000	76,200	2,290,000	166,000	1,350,000	397,000	5,620,000
September	672,000	25,800,000	81,300	2,460,000	225,000	1,850,000	791,000	6,410,000
October	405,000	15,300,000	117,000	3,130,000	207,000	1,580,000	544,000	6,960,000
November	489,000	16,700,000	137,000	3,710,000	170,000	1,310,000	633,000	7,590,000
December	447,000	14,900,000	87,100	2,410,000	182,000	1,270,000	558,000	8,150,000
January-December	6,800,000	229,000,000	1,260,000	33,700,000	1,610,000	12,400,000	8,150,000	XX
2000:								
January	467,000	13,400,000	178,000	4,240,000	384,000	2,490,000	697,000	697,000
February	592,000	17,200,000	109,000	2,700,000	213,000	1,380,000	728,000	1,420,000
March	450,000 7/	12,400,000 7/	206,000	4,960,000	90,100	605,000	622,000	2,050,000
April	630,000 7/	16,800,000 7/	61,500	1,560,000	21,000	128,000	680,000	2,730,000
May	656,000 7/	20,700,000 7/	122,000	3,010,000	18,100	145,000	749,000	3,480,000
June	624,000 7/	18,100,000 7/	136,000	3,610,000	164,000	1,140,000	766,000	4,240,000
July								
Australia	39,600	1,150,000	--	--	--	--	39,600	85,500
Belgium	11,200	556,000	51,600	1,400,000	--	--	48,400	241,000
Brazil	20,000	517,000	--	--	--	--	20,000	250,000
Canada	92,000	2,740,000	--	--	--	--	92,000	552,000
China	--	--	7,000	171,000	--	--	5,040	20,800
Congo (Brazzaville)	--	--	--	--	--	--	--	110,000
Congo (Kinshasa)	19,500	406,000	--	--	--	--	19,500	354,000
Finland	38,100	1,330,000	47,600	1,010,000	95,900	616,000	98,200	1,190,000
France	1,490	102,000	3,500	117,000	--	--	4,010	29,900
Germany	6,600	254,000	--	--	--	--	6,600	51,400
Italy	--	--	--	--	--	--	--	138
Japan	1,320	78,200	--	--	100	2,860	1,340	25,900
Korea, Republic of	251 7/	21,900 7/	--	--	--	--	251	432
Morocco	5,500	165,000	--	--	--	--	5,500	61,700
Norway	108,000	3,210,000	--	--	--	--	108,000	997,000
Russia	14,900	409,000	--	--	6,060	56,100	16,400	354,000
South Africa	12,000	283,000	4,800	106,000	--	--	15,400	28,600
Sweden	--	--	--	--	--	--	--	180
United Kingdom	19,800 7/	145,000 7/	6,050	185,000	--	--	24,200	179,000
Zambia	--	--	--	--	--	--	--	211,000
Total	390,000	11,400,000	121,000	2,990,000	102,000	675,000	505,000	4,750,000

XX Not applicable. -- Zero.

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.

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

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

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

Period and country of origin	Unwrought cobalt alloys		Other cobalt: matte, waste and scrap 2/		Wrought cobalt and cobalt articles	
	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
1999:						
July	3,450	\$126,000	79,600	\$602,000	17,800	\$772,000
August	4,720	165,000	15,300	282,000	6,710	591,000
September	10,500	315,000	21,500	151,000	12,700	686,000
October	24,500	840,000	13,800	96,400	9,560	841,000
November	11,800	457,000	52,300	521,000	11,400	786,000
December	7,260	237,000	32,600	685,000	10,800	643,000
January-December	255,000	9,360,000	391,000	4,060,000	173,000	9,130,000
2000:						
January	11,300	349,000	28,200	386,000	36,800	1,960,000
February	26,900	640,000	52,300 4/	1,500,000 4/	24,100	1,030,000
March	9,010	399,000	87,100 4/	1,710,000 4/	22,500	1,200,000
April	4,010	132,000	90,700 4/	2,150,000 4/	22,300	1,320,000
May	22,900	562,000	57,900 4/	1,260,000 4/	17,900	1,120,000
June	66,300	1,700,000	71,600 4/	1,770,000 4/	19,200	1,430,000
July:						
Belgium	--	--	2,240 4/	104,000 4/	10,700	129,000
Canada	--	--	391	4,780	520	91,300
Chile	--	--	--	--	2,000	144,000
China	--	--	31 4/	2,090 4/	--	--
Finland	--	--	6,300	158,000	6,300	172,000
France	--	--	6,550 4/	114,000 4/	1,080	67,300
Germany	--	--	--	--	348	27,700
Ireland	--	--	694	8,470	--	--
Japan	89	20,200	14,300 4/	847,000 4/	1,810	147,000
Netherlands	--	--	6,700	101,000	--	--
Sweden	3,970	93,600	--	--	--	--
United Kingdom	1,230	23,400	17,800	278,000	6,760	377,000
Total	5,290	137,000	55,000	1,620,000	29,500	1,160,000

-- Zero.

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.

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

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

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

Period	Unwrought cobalt, powders, matte, waste and scrap 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1999:								
July	64,700	\$3,120,000	20,000	\$277,000	25,200	\$184,000	85,100	903,000
August	73,000	2,430,000	35,900	554,000	23,200	240,000	104,000	1,010,000
September	82,300	2,450,000	21,100	394,000	14,700	165,000	101,000	1,110,000
October	71,400	3,310,000	92,600	1,930,000	20,200	196,000	143,000	1,250,000
November	92,100	2,960,000	75,900	1,400,000	53,100	874,000	160,000	1,410,000
December	63,600	2,300,000	90,900	707,000	43,800	298,000	140,000	1,550,000
January-December	1,100,000	38,400,000	521,000	8,140,000	307,000	3,100,000	1,550,000	XX
2000:								
January	79,000	3,180,000	92,400	1,070,000	39,300	343,000	155,000	155,000
February	93,700	3,650,000	23,600	484,000	35,100	326,000	119,000	274,000
March	71,900	2,440,000	143,000	1,340,000	136,000	430,000	208,000	482,000
April	123,000	5,410,000	143,000 7/	1,060,000 7/	177,000	525,000	269,000	751,000
May	132,000	5,020,000	78,600 7/	577,000 7/	29,500	289,000	195,000	946,000
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

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/ 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)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value 2/	Quantity	Value 2/
1999:				
July	31,900	\$2,200,000	63,000	\$768,000
August	37,400	1,820,000	--	--
September	25,000	1,730,000	--	--
October	71,200	3,270,000	--	--
November	46,000	2,010,000	468	3,150
December	29,300	1,690,000	--	--
January-December	546,000	26,400,000	175,000	1,090,000
2000:				
January	64,300	2,220,000	--	--
February	104,000	2,520,000	--	--
March	72,900	3,090,000	--	--
April	116,000	2,790,000	132,000 3/	323,000 3/
May	49,900	2,200,000	300,000 3/	189,000 3/
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/

-- Zero.

1/ Data are rounded to no more than three significant digits.

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.