

Mineral Industry Surveys

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COBALT IN MARCH 2000

U.S. consumption of cobalt in January through March 2000 was 7% lower than that during the first 3 months of 1999, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 5% higher during January through February 2000 than during the first 2 months of 1999. The cobalt content of U.S. exports of unwrought cobalt and chemicals during January through February 2000 was nearly twice that during the first 2 months 1999. Trade data for March 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>
April 19	16.00-17.00
April 27	16.50-17.50
May 4	16.50-17.50
May 11	16.00-17.00
May 18	16.00-17.00

<u>Month</u>	<u>Average price</u>
April	16.56

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:				
March	330	180	255	765
April	303	182	249	734
May	324	153	254	732
June	323	194	248	765
July	306	141	257	704
August	312	153	257	722
September	298	164	249	711
October	312	135	250	697
November	313	121	251	685
December	313	168	248	729
January-March	965	528	753	2,250
January-December 4/	3,770	1,940	3,020	8,720
2000:				
January	309	176	225	710
February	304	152	224	680
March	303	159	228	690
January-March	917	487	676	2,080

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.

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

(Metric tons, contained cobalt)

End use	1999		2000	
	January- March	January- December 2/	March	January- March 3/
Steel	42	155	10	38
Superalloys	994	3,990	320	977
Magnetic alloys	185	736	62	179
Other alloys 4/	W	W	W	W
Cemented carbides 5/	190	674	60	161
Chemical and ceramic uses 6/	738	2,780	207	629
Miscellaneous and unspecified	97	389	32	97
Total	2,250	8,720	690	2,080

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/ May include revisions to prior month's data.

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

5/ Includes diamond bit 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)

Period	Industry 2/			Total	U.S. Government, metal 5/
	Metal 3/	Oxide and other chemical compounds 4/	Scrap		
1999:					
March	318	195	129	641	14,400
April	316	195	127	638	14,200
May	335	226	129	691	14,100
June	303	213	138	654	13,800
July	344	215	132	690	13,600
August	325	203	131	659	13,400
September	332	211	126	668	13,300
October	342	246	128	715	13,300
November	333	246	122	701	13,200
December 6/	309	230	125	664	13,200
2000:					
January	297	229	127	653	13,100
February	316 r/	212	130	658	12,700
March	333	209	126	668	12,100

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.

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:								
February	528,000 7/	\$12,800,000 7/	81,100	\$1,570,000	55,900	\$430,000	601,000	1,340,000
March	736,000	25,200,000	97,400	2,650,000	33,000	217,000	815,000	2,160,000
April	735,000	23,000,000	129,000	3,720,000	72,200	599,000	847,000	3,000,000
May	514,000	16,200,000	88,500	2,330,000	126,000	931,000	611,000	3,610,000
June	798,000	26,200,000	128,000	3,370,000	153,000 7/	950,000 7/	940,000	4,550,000
July	535,000	21,300,000	81,000	2,230,000	147,000	1,330,000	633,000	5,190,000
August	278,000	11,100,000	76,200	2,290,000	166,000	1,350,000	378,000	5,560,000
September	578,000	22,500,000	81,300	2,460,000	225,000	1,850,000	696,000	6,260,000
October	386,000	14,500,000	117,000	3,130,000	207,000	1,580,000	525,000	6,790,000
November	468,000 7/	15,500,000 7/	137,000	3,710,000	170,000	1,310,000	612,000	7,400,000
December	406,000 7/	13,400,000 7/	87,100	2,410,000	182,000	1,270,000	517,000	7,910,000
January-December	6,570,000	218,000,000	1,260,000	33,700,000	1,610,000	12,400,000	7,910,000	XX
2000:								
January	443,000 7/	12,700,000 7/	173,000	4,100,000	384,000	2,490,000	670,000	670,000
February:								
Australia	--	--	--	--	--	--	--	4,040
Belgium	27,300	1,080,000	28,500	780,000	--	--	47,800	57,500
Brazil	70,000	1,900,000	--	--	--	--	70,000	70,000
Canada	67,800	2,070,000	--	--	--	--	67,800	180,000
Congo (Brazzaville)	112,000 7/	2,590,000 7/	--	--	--	--	112,000	112,000
Congo (Kinshasa)	78,500	2,110,000	--	--	--	--	78,500	78,500
Finland	77,300	2,590,000	71,400	1,590,000	212,000	1,370,000	186,000	422,000
France	734	59,700	3,030	186,000	--	--	2,920	5,460
Germany	2,500	100,000	1,050	24,900	--	--	3,260	6,980
Italy	--	--	--	--	618 7/	6,300 7/	284	284
Japan	3,790	190,000	100	4,630	80	2,240	3,880	5,340
Morocco	--	--	--	--	--	--	--	16,600
Norway	103,000	2,950,000	--	--	--	--	103,000	316,000
Russia	38,500	1,100,000	--	--	--	--	38,500	54,700
South Africa	500	16,000	5,400	119,000	--	--	4,390	4,390
Sweden	--	--	--	--	--	--	--	180
United Kingdom	454	10,900	--	--	--	--	454	25,700
Zambia	14,400	414,000	--	--	--	--	14,400	42,400
Total	597,000	17,200,000	109,000	2,700,000	213,000	1,380,000	733,000	1,400,000

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/ Year to date may include revisions to prior months.

7/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census, 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:						
February	29,400	\$1,330,000	28,900 4/	\$826,000 4/	13,000	\$765,000
March	10,600	740,000	54,500 4/	991,000 4/	29,200	1,020,000
April	50,400	1,670,000	74,100 4/	1,150,000 4/	16,100	651,000
May	40,000	493,000	27,900 4/	539,000 4/	11,200	723,000
June	2,290	129,000	40,600 4/	855,000 4/	16,200	710,000
July	3,450	126,000	94,800 4/	1,650,000 4/	17,800	772,000
August	4,720	165,000	34,200 4/	1,430,000 4/	6,710	591,000
September	100,000	3,280,000	26,500 4/	565,000 4/	12,700	686,000
October	9,890	285,000	47,500 4/	1,500,000 4/	9,560	841,000
November	11,800	457,000	73,400 4/	1,660,000 4/	11,400	786,000
December	36,900 4/	1,080,000 4/	44,200 4/	1,400,000 4/	10,800	643,000
January-December	323,000	11,100,000	556,000	13,100,000	173,000	9,130,000
2000:						
January	11,300	349,000	77,700 4/	2,190,000 4/	15,800	969,000
February:						
Australia	--	--	--	--	4,040	92,300
Austria	--	--	2,100	6,780	--	--
Belgium	4,570	117,000	6,790 4/	202,000 4/	391	22,100
Canada	137	8,480	357	4,360	469	89,400
Chile	--	--	--	--	750	47,300
Congo (Kinshasa)	20,000	451,000	--	--	--	--
Finland	--	--	17,400 4/	470,000 4/	--	--
France	--	--	7,420 4/	225,000 4/	--	--
Germany	--	--	4,740 4/	117,000 4/	9,950	350,000
India	--	--	--	--	1,850	74,300
Japan	--	--	5,940	327,000	1,440	72,700
Mexico	--	--	972	8,290	--	--
Sweden	2,020	47,800	--	--	--	--
United Kingdom	152	14,600	6,550 4/	135,000 4/	5,170	284,000
Total	26,900	640,000	52,300	1,500,000	24,100	1,030,000

-- 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 Bureau of the Census for verification.

Source: Bureau of the Census, 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:								
February	56,000	\$2,320,000	37,200	\$465,000	9,500	\$93,500	85,100	139,000
March	78,900	3,210,000	46,200	853,000	47,300	338,000	123,000	262,000
April	105,000	3,840,000	36,600	521,000	38,500	377,000	141,000	403,000
May	240,000	7,040,000	30,600	545,000	11,900 7/	150,000 7/	265,000	667,000
June	109,000	3,530,000	24,100 7/	231,000 7/	7,320	88,300	128,000	796,000
July	64,700	3,120,000	20,000	277,000	25,200	184,000	85,100	881,000
August	59,500	1,990,000	35,900	554,000	23,200	240,000	90,900	972,000
September	82,300	2,450,000	21,100 7/	394,000 7/	14,700	165,000	101,000	1,070,000
October	60,400	2,980,000	92,600	1,930,000	20,200	196,000	132,000	1,200,000
November	91,900	2,950,000	75,900	1,400,000	53,100	874,000	160,000	1,360,000
December	63,500	2,290,000	90,900	707,000	43,800	298,000	139,000	1,500,000
January-December	1,040,000	36,800,000	546,000	8,300,000	307,000	3,100,000	1,500,000	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

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 Bureau of the Census for verification.

Source: Bureau of the Census, 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:				
February	45,000	\$2,460,000	14,500 3/	\$29,500 3/
March	80,000	2,050,000	76,200 3/	94,300 3/
April	54,300	2,410,000	434 3/	3,900 3/
May	40,600	2,170,000	21,900 3/	254,000 3/
June	61,300	3,130,000	10,300 3/	333,000 3/
July	31,900	2,200,000	63,000 3/	768,000 3/
August	37,400	1,820,000	13,600 3/	438,000 3/
September	25,000	1,730,000	--	--
October	71,200	3,270,000	11,000 3/	328,000 3/
November	46,000	2,010,000	643 3/	12,100 3/
December	29,300	1,690,000	170 3/	8,990 3/
January-December	546,000	26,400,000	243,000	2,730,000
2000:				
January	64,300	2,220,000	--	--
February	104,000	2,520,000	2,990 3/	23,500 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 Bureau of the Census for verification.

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