

Mineral Industry Surveys

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COBALT IN MAY 2002

U.S. consumption of cobalt during January through May 2002 was 9% lower than that during the first 5 months of 2001, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was slightly higher during January through April 2002 than that of imports during the same period in 2001. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 42% lower during January through April 2002 than that during the same period in 2001. Trade data for May 2002 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.

<u>Date</u>	<u>Price range</u>
June 20	7.50-8.00
June 27	6.75-6.95
July 2	6.75-7.05
July 11	6.75-7.00

<u>Month</u>	<u>Average price</u>
June	7.54

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
2001:				
May	298	120	210	627
June	281	147	209	638
July	303	117	209	629
August	283	110	209	602
September	279	137	209	626
October	302	104	209	615
November	312	105	209	627
December	309	112	209	631
January-May r/	1,530	671	1,050	3,250
January-December 4/	3,600	1,500	2,520	7,620
2002:				
January	284 r/	97	215	595 r/
February	270 r/	98	215	584 r/
March	280 r/	104	215	599 r/
April	266 r/	111	215	593 r/
May	275	101	215	590
January-May	1,370	511	1,080	2,960

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.

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

(Metric tons, contained cobalt)

End use	2001		2002	
	January- May	January- December 2/	May	January- May 3/
Steel	95 r/	207	19	91
Superalloys	1,500	3,620	284	1,420
Magnetic alloys	308 r/	683	49	248
Other alloys 4/	W	W	W	W
Cemented carbides 5/	337 r/	798	63	313
Chemical and ceramic uses 6/	885 r/	2,020	151	763
Miscellaneous and unspecified	127 r/	297	25	122
Total	3,250 r/	7,620	590	2,960

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/ 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)

Period	Industry 2/ Oxide and other chemical compounds 4/			Total	U.S. Government, metal 5/
	Metal 3/	Scrap			
2001:					
May	335	211	163	709	8,850
June	300	196	163	659	8,480
July	298	219	163	680	8,420
August	319	236	163	718	8,260
September	313	238	163	713	8,180
October	339	230	162	732	NA
November	325	223	163	711	NA
December 6/	335	212	163	710	7,200 e/ r/
2002:					
January	356	243	163	762	NA
February	348 r/	239	162	749	NA
March	320	250	163	733 r/	NA
April	309 r/	239	163	711 r/	NA
May	301	232	163	695	NA

e/ Estimated. r/ Revised. NA Not available.

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/		
2001:								
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	687,000	16,300,000	152,000	2,820,000	84,700	486,000	820,000	4,850,000
July	525,000	12,500,000	119,000	2,090,000	184,000	966,000	658,000	5,500,000
August	646,000	14,300,000	106,000	1,910,000	174,000	872,000	768,000	6,270,000
September	569,000	12,300,000	64,600	1,310,000	198,000	973,000	668,000	6,940,000
October	826,000	16,400,000	91,900	1,760,000	332,000	1,690,000	982,000	7,920,000
November	603,000 7/	10,500,000 7/	81,000	1,330,000	142,000	654,000	700,000	8,620,000
December	553,000	9,200,000	91,900	1,340,000	254,000	1,080,000	689,000	9,310,000
January-December	7,810,000	180,000,000	1,280,000	25,700,000	2,140,000	10,900,000	9,310,000	XX
2002:								
January	729,000 7/	11,500,000 7/	101,000	1,550,000	267,000	1,220,000	877,000	877,000
February	564,000	9,020,000	148,000	2,300,000	202,000	727,000	725,000	1,600,000
March	679,000	11,000,000	162,000	2,690,000	216,000	849,000	854,000	2,460,000
April:								
Australia	--	--	--	--	--	--	--	20,000
Belgium	48,200	963,000	27,000	398,000	--	--	67,600	298,000
Brazil	40,000	582,000	--	--	--	--	40,000	140,000
Canada	70,300	1,060,000	--	--	--	--	70,300	303,000
China	--	--	--	--	2,050	13,000	513	39,000
Congo (Kinshasa)	--	--	--	--	--	--	--	130,000
Finland	63,500	1,360,000	24,400	267,000	252,000	924,000	148,000	752,000
France	956	56,200	5,870	225,000	--	--	5,180	16,100
Germany	--	--	2,000	28,200	--	--	1,440	7,570
Japan	--	--	--	--	8,110	90,100	2,030	6,160
Korea, Republic of	36	2,350	--	--	--	--	36	285
Morocco	5,000	71,100	--	--	--	--	5,000	36,000
Norway	256,000	3,830,000	--	--	--	--	256,000	745,000
Philippines	--	--	--	--	5,900	48,100	2,710	10,900
Russia	117,000	1,830,000	--	--	--	--	117,000	461,000
South Africa	--	--	12,000	132,000	--	--	8,640	86,100
Sweden	2,180	88,000	--	--	--	--	2,180	7,040
Switzerland	--	--	--	--	--	--	--	3
Uganda	--	--	--	--	--	--	--	13,000
United Kingdom	1,900	35,500	7,780	177,000	--	--	7,490	61,400
Zambia	55,900	783,000	--	--	--	--	55,900	113,000
Total	660,000	10,700,000	79,000	1,230,000	268,000	1,080,000	790,000	3,250,000

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/
2001:						
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	22,200	445,000	67,400 4/	888,000 4/	14,600	980,000
July	6,570	147,000	57,400 4/	537,000 4/	14,500	989,000
August	3,480	64,600	46,400 4/	1,060,000 4/	13,200	845,000
September	1,140	51,500	18,500 4/	515,000 4/	15,400	947,000
October	3,410	105,000	32,000 4/	709,000 4/	19,400	1,170,000
November	10,800	250,000	22,400 4/	519,000 4/	17,000	1,030,000
December	2,130	47,500	49,200 4/	1,010,000 4/	21,800	1,370,000
January-December	73,200	1,670,000	631,000	11,500,000	233,000	13,400,000
2002:						
January	6,990	152,000	73,900 4/	1,170,000 4/	23,000	925,000
February	3,650	154,000	15,800	379,000	15,300	932,000
March	1,420	187,000	88,200	1,270,000	20,900	1,080,000
April:						
Australia	--	--	--	--	10,000	89,100
Belgium	--	--	--	--	2,730	122,000
Brazil	--	--	1,340	4,180	--	--
Canada	--	--	773	57,900	1,040	192,000
France	--	--	75	4,240	1,550	87,100
Germany	--	--	2,950	72,400	1,210	63,900
Ireland	--	--	5,250	56,600	--	--
Japan	--	--	9,530	252,000	4,980	99,000
Korea	--	--	126	3,600	--	--
Sweden	--	--	226	5,150	--	--
Switzerland	--	--	1,190	14,500	--	--
United Kingdom	210	6,350	9,080	74,800	12,000	670,000
Total	210	6,350	30,500	546,000	33,500	1,320,000

-- 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/		
2001:								
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
July	146,000	3,960,000	211,000 7/	1,160,000 7/	30,000	231,000	306,000	2,040,000
August	189,000	5,270,000	27,400 7/	241,000 7/	29,800	173,000	216,000	2,250,000
September	186,000	4,730,000	32,100	473,000	3,030	27,100	210,000	2,460,000
October	184,000	5,100,000	6,530	155,000	35,400	221,000	197,000	2,660,000
November	306,000	4,520,000	41,600	581,000	7,770	34,300	338,000	3,000,000
December	182,000	3,220,000	32,500	701,000	9,110	77,100	207,000	3,210,000
January-December	2,230,000	57,300,000	1,260,000	10,200,000	254,000	1,980,000	3,210,000	XX
2002:								
January	127,000	2,870,000	25,600	379,000	14,100	98,500	149,000	149,000
February	140,000	2,850,000	6,090	88,100	13,400	85,300	148,000	297,000
March	167,000	3,370,000	5,820	71,700	12,200	67,700	174,000	471,000
April	161,000	3,690,000	35,500	483,000	19,000	97,200	191,000	662,000

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)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value 2/	Quantity	Value 2/
2001:				
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/
July	73,800	2,040,000	78,300 3/	342,000 3/
August	66,400	2,320,000	21,400 3/	321,000 3/
September	50,700	1,990,000	71,500 3/	446,000 3/
October	30,600	1,250,000	19,400 3/	411,000 3/
November	42,600	1,960,000	2,400 3/	58,700 3/
December	82,300	2,710,000	2,330 3/	72,000 3/
January-December	741,000	25,500,000	527,000	3,090,000
2002:				
January	46,000	1,720,000	237,000 3/	776,000 3/
February	136,000	3,070,000	2,900 3/	85,000 3/
March	55,300	1,710,000	575 3/	16,500 3/
April	106,000	2,450,000	--	--

-- 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.