

# Mineral Industry Surveys

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**For information, contact:**

Kim B. Shedd, Cobalt Commodity Specialist

U.S. Geological Survey

989 National Center

Reston, VA 20192

Telephone: (703) 648-4974, Fax: (703) 648-7757

E-mail: [ksheddd@usgs.gov](mailto:ksheddd@usgs.gov)

Jo-Ann Sterling (Data)

Telephone: (703) 648-7953

Fax: (703) 648-7975

**Internet:** <http://minerals.usgs.gov/minerals>

## COBALT IN FEBRUARY 2002

U.S. consumption of cobalt in January through February 2002 was 11% lower than that during the first 2 months of 2001, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 27% higher in January 2002 than that of December 2001. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 28% higher in January 2002 than that of December 2001. Trade data for February 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>
March 21	6.50-6.75
March 27	6.40-6.60
April 4	6.40-6.60
April 11	6.50-6.95
April 18	6.75-7.25

<u>Month</u>	<u>Average price</u>
March	6.66

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:				
February	303	145	211	659
March	321	143	210	673
April	308	122	209	640
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-February r/	599	286	422	1,310
January-December 4/	3,600	1,500	2,520	7,620
2002:				
January	280 r/	97 r/	209	586
February	267	99	209	575
January-February	546	196	419	1,160

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- February	January- December 2/	February	January- February 3/
Steel	34 r/	207	16	32
Superalloys	582 r/	3,620	285	579
Magnetic alloys	128	683	48	95
Other alloys 4/	W	W	W	W
Cemented carbides 5/	137 r/	798	60	124
Chemical and ceramic uses 6/	372 r/	2,020	141	281
Miscellaneous and unspecified	54 r/	297	25	49
Total	1,310 r/	7,620	575	1,160

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:					
February	340	200	164	704	9,810
March	335	195	163	693	9,780
April	363	214	163	740	9,120
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	NA
2002:					
January	358	242	163	762	NA
February	348	240	162	751	NA

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:								
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	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:								
Belgium	22,300	415,000	11,200	200,000	--	--	30,300	30,300
Brazil	40,000	577,000	--	--	--	--	40,000	40,000
Canada	84,600	1,470,000	--	--	--	--	84,600	84,600
China	22,500	563,000	--	--	--	--	22,500	22,500
Congo (Kinshasa)	60,100	779,000	--	--	--	--	60,100	60,100
Finland	131,000	2,460,000	68,100	807,000	233,000	956,000	245,000	245,000
France	403	23,900	4,570	198,000	--	--	3,690	3,690
Germany	16	2,500	737	43,900	--	--	547	547
Japan	--	--	--	--	8,110	98,500	2,030	2,030
Korea, Republic of	135	9,650	--	--	--	--	135	135
Morocco	4,010	58,300	--	--	--	--	4,010	4,010
Norway	179,000	2,670,000	--	--	--	--	179,000	179,000
Philippines	--	--	--	--	7,260	49,000	2,990	2,990
Russia	89,300	1,420,000	--	--	--	--	89,300	89,300
South Africa	77,500	973,000	--	--	--	--	77,500	77,500
Sweden	453	13,300	--	--	--	--	453	453
United Kingdom	17,700 7/	66,300 7/	16,900	306,000	19,000	112,000	34,500	34,500
Total	729,000	11,500,000	101,000	1,550,000	267,000	1,220,000	877,000	877,000

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:						
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	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:						
Belgium	4,420	45,800	--	--	10,600	126,000
Brazil	--	--	20,000 4/	289,000 4/	--	--
Canada	464	51,000	--	--	849	185,000
Finland	--	--	13,500	325,000	--	--
France	--	--	2,030	117,000	14	8,000
Germany	--	--	5,790	60,300	1,230	55,700
India	--	--	--	--	47	5,640
Japan	--	--	9,130	271,000	1,810	42,000
United Kingdom	2,110	55,500	23,500	111,000	8,410	503,000
Total	6,990	152,000	73,900	1,170,000	23,000	925,000

-- 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:								
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
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

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:				
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/
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/

-- 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.