

# 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: [kshed@usgs.gov](mailto:kshed@usgs.gov)

Jo-Ann Sterling (Data)

Telephone: (703) 648-7953

Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999

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

## COBALT IN JUNE 2001

U.S. consumption of cobalt in January through June 2001 was 5% lower than that during the first half 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 May 2001 than that of imports during the same period in 2000. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 52% higher during January through May 2001 than that during the same period in 2000. Trade data for June 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.

<u>Date</u>	<u>Price range</u>
July 19	9.20-9.75
July 26	9.20-9.75
August 2	9.30-9.90
August 9	9.50-10.00

  

<u>Month</u>	<u>Average price</u>
July	9.73

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
2000:				
June	272	157	226	655
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-June r/	1,720	965	1,360	4,040
January-December 4/	3,460	1,850	2,680	7,980
2001:				
January	294	142	211	647
February	301	145	211	657
March	309	143	210	662
April	306	122	209	638
May	296 r/	119 r/	210	625 r/
June	275	122	209	606
January-June	1,780	793	1,260	3,830

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	2000		2001	
	January- June	January- December 2/	June	January- June 3/
Steel	72 r/	137	16	102
Superalloys	1,760	3,580	283	1,770
Magnetic alloys	375 r/	752	56	364
Other alloys 4/	W	W	W	W
Cemented carbides 5/	416 r/	771	62	399
Chemical and ceramic uses 6/	1,270	2,450	165	1,050
Miscellaneous and unspecified	145	290	25	152
Total	4,040 r/	7,980	606	3,830

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 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/ Oxide and other chemical compounds 4/				U.S. Government, metal 5/
	Metal 3/	Scrap	Total		
2000:					
June	335	212	150	697	11,700
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 r/	10,200
February	342 r/	200	164	707	9,810
March	342	195	163	700	9,780
April	366	214	163	743	9,120
May	338 r/	211 r/	163	712 r/	8,850
June	304	210	163	677	8,480

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/		
2000:								
May	656,000 7/	\$20,700,000 7/	122,000	\$3,010,000	18,100	\$145,000	749,000	3,420,000
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:								
Australia	37,000 7/	626,000 7/	--	--	--	--	37,000	72,000
Belgium	46,100	1,420,000	8,000	193,000	--	--	51,900	262,000
Brazil	28,000	689,000	--	--	260	4,590	28,100	144,000
Canada	86,700	2,470,000	--	--	--	--	86,700	419,000
China	10,000	266,000	--	--	--	--	10,000	43,800
Congo (Kinshasa)	94,900	2,120,000	--	--	--	--	94,900	312,000
Finland	50,200	1,570,000	29,200	541,000	80,200	513,000	94,700	873,000
France	255	20,700	6,450	254,000	--	--	4,900	18,800
Germany	5,710	215,000	--	--	--	--	5,710	26,900
India	--	--	--	--	--	--	--	267
Italy	--	--	--	--	--	--	--	6,140
Japan	--	--	--	--	--	--	--	6,190
Korea, Republic of	31	2,120	53	2,150	--	--	69	382
Morocco	25,000	583,000	--	--	--	--	25,000	105,000
Norway	154,000	3,660,000	--	--	--	--	154,000	418,000
Russia	137,000	3,570,000	--	--	--	--	137,000	706,000
South Africa	116,000	2,490,000	--	--	--	--	116,000	293,000
Switzerland	--	--	2	9,080	--	--	1	77
Taiwan	5,000 7/	37,200 7/	--	--	--	--	5,000	5,240
Uganda	--	--	--	--	--	--	--	15,600
United Kingdom	15,200	379,000	6,910	210,000	--	--	20,200	54,800
Zambia	24,700	952,000	--	--	--	--	24,700	244,000
Total	836,000	21,100,000	50,600	1,210,000	80,400	518,000	896,000	4,030,000

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/
2000:						
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	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:						
Australia	--	--	3,700	39,100	--	--
Belgium	7,760	173,000	--	--	135	7,520
Brazil	--	--	--	--	352	6,290
Canada	27	2,740	229	2,800	1,100	186,000
Finland	--	--	--	--	--	--
France	--	--	2,490 4/	187,000 4/	20	8,170
Germany	--	--	2,270 4/	40,100 4/	767	21,700
India	--	--	--	--	15,800	80,000
Japan	200	15,000	12,500 4/	488,000 4/	2,070	168,000
Luxembourg	--	--	200 4/	8,000 4/	--	--
Sweden	38	2,570	601 4/	15,700 4/	--	--
Switzerland	--	--	99 4/	22,400 4/	3	6,440
United Kingdom	--	--	569 4/	19,700 4/	4,870	330,000
Total	8,030	193,000	22,600	823,000	25,100	813,000

-- 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/		
2000:								
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
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

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/
2000:				
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/
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/

-- 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.