

# Mineral Industry Surveys

---

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 JANUARY 2000

U.S. consumption of cobalt in January 2000 was approximately the same as that during December 1999, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 3% higher in 1999 than in 1998. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 11% lower in 1999 than in 1998. Trade data for January 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>
February 24	13.25-14.25
March 2	13.75-14.75
March 9	14.50-15.25
March 16	15.00-16.00
March 23	15.50-16.00

<u>Month</u>	<u>Average price</u>
February	14.16

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:				
January	308	192	248	748
February	326	156	250	733
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-December 4/	3,770	1,940	3,020	8,720
2000:				
January	309	174	247	730

1/ Data are rounded to 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
	January	January- December 2/	
Steel	11	155	14
Superalloys	321	3,990	329
Alloys (excluding steels and superalloys):			
Magnetic alloys	58	736	58
Other alloys 3/	W	W	W
Cemented carbides 4/	64	674	53
Chemical and ceramic uses 5/	261	2,780	244
Miscellaneous and unspecified	32	389	32
Total	748	8,720	730

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Data based on monthly reports.

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

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

5/ 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/				U.S. Government, metal 5/
	Metal 3/	Oxide and other chemical compounds 4/	Scrap	Total	
1999:					
January	357	223	128	709	14,700
February	330	203	128	661	14,600
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	222	127	645	13,100

1/ Data are rounded to 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.

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/		
1998:								
December	466,000	\$14,500,000	76,000	\$1,950,000	174,000	\$2,430,000	567,000	7,670,000
January-December	6,450,000	284,000,000	1,210,000	41,500,000	1,310,000	13,600,000	7,670,000	XX
1999:								
January	605,000	16,200,000	160,000	3,810,000	70,800	529,000	739,000	739,000
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:								
Belgium	11,700	562,000	42,100	1,140,000	--	--	41,900	334,000
Brazil	--	--	--	--	--	--	--	188,000
Canada	60,300	1,950,000	--	--	--	--	60,300	787,000
China	--	--	--	--	--	--	--	23,800
Congo (Brazzaville)	50,000	1,390,000	--	--	--	--	50,000	108,000
Congo (Kinshasa)	20,000	542,000	--	--	--	--	20,000	866,000
Finland	125,000	4,610,000	22,200	540,000	182,000	1,270,000	190,000	1,970,000
France	892	79,900	4,160	270,000	--	--	3,890	47,900
Germany	7,420	340,000	--	--	--	--	7,420	147,000
India	--	--	--	--	--	--	--	292
Japan	681	40,300	100	5,790	--	--	753	20,200
Korea, Republic of	44	3,450	--	--	--	--	44	446
Netherlands	--	--	--	--	--	--	--	7,990
Norway	114,000	3,410,000	--	--	--	--	114,000	1,530,000
Russia	5,050	145,000	--	--	--	--	5,050	733,000
South Africa	500	20,300	--	--	--	--	500	7,010
United Kingdom	--	--	18,600	451,000	--	--	13,400	266,000
Zambia	10,000	292,000	--	--	--	--	10,000	879,000
Total	406,000	13,400,000	87,100	2,410,000	182,000	1,270,000	517,000	7,910,000

XX Not applicable.

1/ Data are rounded to 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/
1998:						
December	28,400	\$1,240,000	14,900	\$225,000	27,700	\$901,000
January-December	315,000	11,600,000	857,000	10,800,000	217,000	11,300,000
1999:						
January	23,100	1,300,000	9,610 4/	535,000 4/	18,100	946,000
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:						
Austria	--	--	1,440	7,370	--	--
Belgium	934	27,800	500 4/	25,000 4/	867	49,600
Canada	104	19,400	4,230 4/	168,000 4/	1,270	199,000
Congo (Brazzaville)	29,600 4/	842,000	--	--	--	--
France	1,070	16,000	9,730 4/	287,000 4/	--	--
Germany	45	2,050	1,340	25,500	1,540	98,800
Italy	--	--	50	3,050	--	--
Japan	750	63,200	3,750 4/	241,000 4/	2,140	148,000
Netherlands	--	--	18,700	551,000	--	--
Sweden	3,900	94,100	400	5,670	--	--
Switzerland	--	--	1,450	17,700	--	--
Taiwan	--	--	725	6,970	--	--
United Kingdom	452	14,400	1,860 4/	66,400 4/	4,990	147,000
Total	36,900	1,080,000	44,200	1,400,000	10,800	643,000

1/ Data are rounded to 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/		
1998:								
December	118,000	\$3,300,000	30,000	\$461,000	76,000	\$281,000	158,000	1,680,000
January-December	1,140,000	43,400,000	533,000	11,300,000	674,000	4,140,000	1,680,000	XX
1999:								
January	25,600	1,090,000	35,100 7/	420,000 7/	11,800	96,500	53,700	53,700
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 7/	707,000 7/	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

XX Not applicable.

1/ Data are rounded to 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/
1998:				
December	36,400	\$2,130,000	--	--
January-December	667,000	33,900,000	128,000	\$3,500,000
1999:				
January	24,200	1,480,000	31,400 3/	457,000 3/
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

1/ Data are rounded to 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.