

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: ksheddd@usgs.gov

Virginia C. Harper (Data)
Telephone: (703) 648-7983
Fax: (703) 648-7975
E-mail: vharper@usgs.gov

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

COBALT IN APRIL 2009

Preliminary data for 2008 and 2009 indicate that U.S. cobalt consumption during January through April 2009 was 5% lower than that during the first 4 months of 2008, according to the U.S. Geological Survey. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals was 44% lower during January through March 2009 than that during the same period in 2008. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through March

2009 was 14% lower than that exported during the same period in 2008.

Update

Prices for electrolytic cobalt, in dollars per pound from Platts Metals Week, are listed below.

<u>Month</u>	<u>Price range</u>	<u>Average price</u>
April 2009	16.00-18.00	16.78

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2008:				
April	295 ^r	188 ^r	170	653 ^r
May	335 ^r	185 ^r	162	682 ^r
June	312 ^r	187 ^r	164	664 ^r
July	312 ^r	183 ^r	150	644 ^r
August	309 ^r	188 ^r	166	663 ^r
September	311 ^r	186 ^r	154	651 ^r
October	306 ^r	184 ^r	170	660 ^r
November	328 ^r	180 ^r	147 ^r	655 ^r
December	300 ^r	178 ^r	148 ^r	626 ^r
January-April	1,260 ^r	740 ^r	655 ^r	2,660 ^r
January-December ⁴	3,780 ^r	2,210 ^r	1,920 ^r	7,900 ^r
2009:				
January	303	182 ^r	149 ^r	634 ^r
February	308	183 ^r	142 ^r	633 ^r
March	300 ^r	182 ^r	146 ^r	628 ^r
April	296	180	146	622
January-April	1,210	727	583	2,520

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes metal powder.

³Data may include other cobalt materials.

⁴Data based on monthly reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE¹

(Metric tons, contained cobalt)

End use	2008		2009	
	January-April	January-December ²	April	January-April ³
Steel	271 ^r	835 ^r	56	225
Superalloys	1,150 ^r	3,410 ^r	281	1,140
Magnetic alloys	102 ^r	295	22	89
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	254 ^r	739	56	225
Chemical and ceramic uses ⁶	795 ^r	2,360 ^r	184	744
Miscellaneous and unspecified	90 ^r	270	22	90
Total	2,660 ^r	7,900 ^r	622	2,520

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

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data based on monthly reports.

³Includes revisions to prior months' data.

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

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

⁶Includes catalysts, driers in paints or related usages, feed or nutritive additives, glass decolorizer, ground coat frit, pigments, and other uses.

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Industry ²			U.S. Government, metal ⁵	
	Metal ³	Oxide and other chemical compounds ⁴	Scrap		
2008:					
April	320 ^r	168 ^r	52	541 ^r	620
May	300 ^r	170 ^r	54	524 ^r	612
June	300 ^r	163 ^r	54	516 ^r	612
July	308 ^r	162 ^r	62	533 ^r	606
August	320 ^r	157 ^r	63	540 ^r	576
September	313 ^r	158 ^r	66	537 ^r	497
October	296 ^r	175 ^r	59	531 ^r	497
November	294 ^r	175 ^r	70	539 ^r	497
December ⁶	296 ^r	179 ^r	78	553 ^r	473
2009:					
January	299 ^r	177 ^r	96	572 ^r	455
February	295 ^r	173 ^r	90	558 ^r	455
March	290	169 ^r	97	556 ^r	455
April	297	167	97	561	455

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Stocks reported by cobalt processors and consumers.

³Includes metal powder.

⁴Data may include other cobalt materials.

⁵Data from Defense National Stockpile Center; uncommitted material only.

⁶Data based on monthly reports.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT BY COUNTRY¹

(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 period ⁵	Cobalt content, year to date ^{5, 6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2008:								
March	492,000	\$34,400,000	108,000	\$7,290,000	293,000	\$3,150,000	658,000	2,840,000
April	622,000	49,200,000	57,400	4,450,000	601,000	7,570,000	853,000	3,700,000
May	721,000	62,800,000	66,100	5,230,000	523,000	5,810,000	945,000	4,640,000
June	875,000	79,000,000	135,000	8,430,000	523,000	6,670,000	1,140,000	5,780,000
July	550,000	46,100,000	100,000	6,750,000	589,000	5,000,000	793,000	6,580,000
August	523,000	40,600,000	91,500	5,770,000	529,000	4,120,000	748,000	7,320,000
September	799,000	51,000,000	77,100	4,210,000	536,000	4,180,000	1,010,000	8,340,000
October	791,000	53,000,000	80,600	4,020,000	248,000	2,200,000	922,000	9,260,000
November	685,000	43,600,000	148,000	4,710,000	234,000	2,610,000	862,000	10,100,000
December	490,000	23,200,000	96,900	3,460,000	33,400	422,000	570,000	10,700,000
January-March	2,370,000	170,000,000	258,000	16,300,000	888,000	11,300,000	2,840,000	XX
January-December	8,430,000	618,000,000	1,110,000	63,400,000	4,710,000	49,900,000	10,700,000	XX
2009:								
January	345,000	10,500,000	37,700	901,000	101,000	1,360,000	410,000	410,000
February	574,000	18,600,000	23,400	757,000	161,000	1,730,000	644,000	1,050,000
March:								
Australia	16,000	325,000	--	--	--	--	16,000	66,000
Belgium	22,000	561,000	71,100	1,870,000	7,000	53,900	75,100	131,000
Brazil	15,000	346,000	--	--	--	--	15,000	16,800
Canada	20,200	932,000	17,800	193,000	--	--	33,100	173,000
China	547	31,300	--	--	--	--	547	307,000
Congo (Kinshasa)	--	--	--	--	--	--	--	9,980
Finland	--	--	3,600	116,000	91,600	1,160,000	36,600	94,400
France	1,390	77,700	--	--	--	--	1,390	2,640
Germany	--	--	--	--	--	--	--	1,180
Hong Kong	--	--	--	--	--	--	--	9,720
India	--	--	--	--	36,000	306,000	9,720	9,720
Japan	8,200	375,000	215	9,950	--	--	8,360	14,600
Korea, Republic of	--	--	--	--	4,000	81,500	1,840	1,840
Morocco	25,000	637,000	--	--	--	--	25,000	51,000
Norway	150,000	4,480,000	--	--	--	--	150,000	327,000
Peru	--	--	--	--	--	--	--	234
Russia	9,000	208,000	--	--	--	--	9,000	176,000
South Africa	500	16,500	--	--	--	--	500	1,000
Sweden	250	11,800	--	--	--	--	250	500
Uganda	19,400	557,000	--	--	--	--	19,400	19,400
United Kingdom	2,470	125,000	16,000	530,000	--	--	14,000	22,200
Zambia	134,000	3,630,000	--	--	--	--	134,000	170,000
Total	424,000	12,300,000	109,000	2,720,000	139,000	1,610,000	549,000	1,600,000
January-March	1,340,000	41,400,000	170,000	4,380,000	400,000	4,700,000	1,600,000	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

³Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

⁴Customs value.

⁵Estimated from gross weights.

⁶May include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS BY COUNTRY¹

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Quantity	Value ²	Quantity	Value ²	Quantity	Value ²
2008:						
March	766	\$87,700	114,000	\$2,900,000	34,700	\$2,700,000
April	15,500	871,000	214,000	4,870,000	22,800	2,180,000
May	1,140	93,800	127,000	2,600,000	15,600	1,750,000
June	14,300	776,000	117,000	2,130,000	28,900	3,070,000
July	12,300	700,000	145,000	3,430,000	27,200	2,540,000
August	1,900	156,000	56,400	1,110,000	39,300	3,580,000
September	214	40,700	34,800	613,000	27,600	2,900,000
October	20,600	1,150,000	85,000	1,330,000	33,900	2,390,000
November	44	6,220	59,700	875,000	26,200	2,930,000
December	21,000	1,030,000	60,400	836,000	48,800	2,450,000
January-March	27,600	1,520,000	214,000	4,940,000	74,600	6,580,000
January-December	115,000	6,340,000	1,110,000	22,700,000	345,000	30,400,000
2009:						
January	29,300	694,000	68,900	992,000	9,430	1,470,000
February	59,500	2,360,000	31,500	490,000	20,600	2,190,000
March:						
Belgium	90	3,020	--	--	--	--
Canada	39,300	890,000	826	8,730	1,080	231,000
China	--	--	--	--	745	116,000
Finland	900	127,000	--	--	--	--
France	--	--	6,550	65,100	3,470	375,000
Germany	--	--	4,880	104,000	6,140	307,000
India	--	--	1,710	29,500	--	--
Ireland	--	--	19,700	290,000	--	--
Japan	--	--	11,500	161,000	1,200	66,400
Mexico	--	--	738	3,350	--	--
Switzerland	--	--	261	4,510	--	--
Tunisia	--	--	1,990	47,400	--	--
United Kingdom	75	10,500	9,660	151,000	7,440	703,000
Total	40,300	1,030,000	57,800	865,000	20,100	1,800,000
January-March	129,000	4,080,000	158,000	2,350,000	50,100	5,460,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Customs value.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS¹

(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 period ⁵	Cobalt content, year to date ^{5, 6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2008:								
March	243,000	\$9,720,000	50,400	\$1,320,000	22,800	\$495,000	285,000	715,000
April	181,000	8,030,000	48,000	3,980,000	1,770	26,600	216,000	931,000
May	261,000	11,100,000	81,200	1,780,000	67,200	789,000	336,000	1,270,000
June	180,000	9,470,000	21,100	785,000	3,520	43,400	196,000	1,460,000
July	181,000	9,410,000	54,800	2,930,000	32,900	624,000	229,000	1,690,000
August	239,000	16,200,000	34,800	2,090,000	3,200	37,600	265,000	1,960,000
September	197,000	8,740,000	52,600	1,530,000	14,600	208,000	239,000	2,190,000
October	227,000	6,780,000	36,300	1,060,000	36,300	496,000	262,000	2,460,000
November	156,000	7,090,000	22,800	334,000	56,200	356,000	186,000	2,640,000
December	174,000	10,900,000	31,800	929,000	43,600	658,000	207,000	2,850,000
January-March	588,000	23,900,000	148,000	4,000,000	86,900	3,080,000	715,000	XX
January-December	2,380,000	112,000,000	531,000	19,400,000	346,000	6,320,000	2,850,000	XX
2009:								
January	222,000	12,600,000	49,900	1,120,000	28,100	12,300	264,000	264,000
February	138,000	5,180,000	19,500	357,000	23,600	176,000	158,000	423,000
March	166,000	7,080,000	25,600	412,000	24,600	577,000	190,000	613,000
January-March	526,000	24,900,000	95,000	1,890,000	76,300	765,000	613,000	XX

XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

³Cobalt acetates and cobalt chlorides.

⁴Free alongside ship (f.a.s.) value.

⁵Estimated from gross weights.

⁶Year to date may include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,
AND CONCENTRATES¹

(Kilograms, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value ²	Quantity	Value ²
2008:				
March	92,200	\$6,420,000	28,600	\$2,630,000
April	127,000	9,300,000	89,000	4,520,000
May	98,400	6,990,000	19,300	1,830,000
June	117,000	9,900,000	103,000	9,940,000
July	93,600	7,990,000	4,610	300,000
August	109,000	8,800,000	6,190	307,000
September	98,200	8,120,000	147,000	4,360,000
October	133,000	9,580,000	158,000	843,000
November	146,000	10,500,000	17,000	436,000
December	91,200	6,230,000	2,000	106,000
January-March	352,000	26,400,000	93,900	5,910,000
January-December	1,370,000	104,000,000	640,000	28,500,000
2009:				
January	90,300	5,710,000	5,710	10,500
February	118,000	6,500,000	41,500	54,100
March	148,000	8,680,000	--	--
January-March	356,000	20,900,000	47,200	64,600

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Free alongside ship (f.a.s.) value.

Source: U.S. Census Bureau.