

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 MAY 2009

Preliminary data for 2008 and 2009 indicate that U.S. cobalt consumption during January through May 2009 was 6% lower than that during the first 5 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 39% lower during January through April 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 April

2009 was 38% 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>
May 2009	13.60-17.50	15.51

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:				
May	335	185	162	682
June	312	187	164	664
July	312	183	150	644
August	309	188	166	663
September	311	186	154	651
October	306	184	170	660
November	328	180	147	655
December	300	178	148	626
January-May ^f	1,600	925	817	3,340
January-December ⁴	3,780	2,210	1,920	7,900
2009:				
January	303	182	149	634
February	308	183	142	633
March	300	182	146	628
April	296	180	146	622
May	292	179	146	617
January-May	1,500	906	729	3,130

^fRevised.

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-May	January-December ²	May	January-May ³
Steel	339 ^f	835	56	281
Superalloys	1,460 ^f	3,410	277	1,420
Magnetic alloys	128	295	22	111
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	313	739	56	280
Chemical and ceramic uses ⁶	994 ^f	2,360	183	928
Miscellaneous and unspecified	112	270	22	112
Total	3,340 ^f	7,900	617	3,130

^fRevised. 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			Total	U.S. Government, metal ⁵
	Metal ³	Oxide and other chemical compounds ⁴	Scrap		
2008:					
May	300	170	54	524	612
June	300	163	54	516	612
July	308	162	62	533	606
August	320	157	63	540	576
September	313	158	66	537	497
October	296	175	59	531	497
November	294	175	70	539	497
December ⁶	296	179	78	553	473
2009:					
January	299	177	96	572	455
February	295	173	90	558	455
March	290	169	97	556	455
April	297	167	97	561	455
May	300	167	97	564	455

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:								
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-April	3,000,000	219,000,000	315,000	20,800,000	1,490,000	18,900,000	3,700,000	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	424,000	12,300,000	109,000	2,720,000	139,000	1,610,000	549,000	1,600,000
April:								
Australia	51,000	1,300,000	--	--	--	--	51,000	117,000
Belgium	3,150	101,000	47,100	927,000	31,800	500,000	51,600	182,000
Brazil	40,000	852,000	--	--	500	9,680	40,100	56,900
Canada	5,650	308,000	19,700	490,000	--	--	19,800	193,000
China	107,000	3,720,000	10,100	289,000	17,900	263,000	121,000	428,000
Congo (Kinshasa)	1,000	29,600	--	--	--	--	1,000	11,000
Finland	450	19,100	14,000	373,000	152,000	2,590,000	70,200	165,000
France	305	21,800	--	--	--	--	305	2,940
Germany	--	--	--	--	--	--	--	1,180
Hong Kong	--	--	--	--	--	--	--	9,720
India	--	--	--	--	--	--	--	9,720
Japan	17,500	820,000	594	30,600	--	--	18,000	32,500
Korea, Republic of	--	--	--	--	--	--	--	1,840
Mexico	--	--	2,270	62,500	--	--	1,630	1,630
Morocco	34,000	953,000	--	--	--	--	34,000	85,000
Norway	155,000	5,470,000	--	--	--	--	155,000	482,000
Peru	--	--	--	--	--	--	--	234
Russia	40,000	1,150,000	--	--	--	--	40,000	216,000
South Africa	500	18,300	--	--	--	--	500	1,500
Spain	--	--	4,730	112,000	--	--	3,400	3,400
Sweden	--	--	--	--	--	--	--	500
Taiwan	--	--	--	--	39,600	90,700	9,500	9,500
Uganda	--	--	--	--	--	--	--	19,400
United Kingdom	10,600	345,000	--	--	9,210	160,000	14,800	37,000
Zambia	3,000	88,700	--	--	--	--	3,000	173,000
Total	469,000	15,200,000	98,400	2,280,000	251,000	3,610,000	635,000	2,240,000
January-April	1,810,000	56,600,000	268,000	6,660,000	651,000	8,310,000	2,240,000	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:						
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-April	43,100	2,390,000	428,000	9,810,000	97,400	8,770,000
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	40,300	1,030,000	57,800	865,000	20,100	1,800,000
April:						
Canada	109,000	1,830,000	291	2,540	1,110	262,000
China	--	--	--	--	372	58,100
France	--	--	8,120	87,900	76	48,000
Germany	--	--	2,210	41,100	1,110	215,000
Ireland	--	--	21,100	305,000	--	--
Japan	--	--	8,530	120,000	86	6,350
Mexico	--	--	564	2,560	--	--
New Zealand	--	--	271	3,180	--	--
Taiwan	--	--	10,000	25,100	--	--
Tunisia	--	--	2,110	50,200	--	--
United Kingdom	455	40,700	25,800	331,000	7,620	629,000
Total	109,000	1,870,000	79,100	969,000	10,400	1,220,000
January-April	238,000	5,950,000	237,000	3,310,000	60,500	6,680,000

-- 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:								
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-April	768,000	31,900,000	196,000	7,980,000	88,600	3,110,000	931,000	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
April	164,000	5,560,000	15,300	337,000	5,800	83,300	176,000	789,000
January-April	690,000	30,400,000	110,000	2,220,000	82,100	849,000	789,000	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:				
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-April	480,000	35,700,000	183,000	10,400,000
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	--	--
April	82,800	5,620,000	30,500	454,000
January-April	439,000	26,500,000	77,700	518,000

-- 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.