

# 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: kshedd@usgs.gov

Ram C. Khatri (Data)  
Telephone: (703) 648-7996  
Fax: (703) 648-7975  
E-mail: rkhatr@usgs.gov

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

## COBALT IN JULY, AUGUST, AND SEPTEMBER 2008

Preliminary data for 2008 indicate that U.S. cobalt consumption during the first three quarters of 2008 was slightly less than that consumed during the first three quarters of 2007, according to the U.S. Geological Survey. U.S. cobalt consumption during the quarter ending September 30, 2008, was slightly less than that consumed during the quarter ending June 30, 2008.

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals was 12% higher during January through August 2008 than that during the same period in 2007. The amount of cobalt contained in U.S. exports of unwrought cobalt

and chemicals during January through August 2008 was 5% less than that exported during the same period in 2007.

**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>
July 2008	33.00-43.00	38.90
August 2008	24.75-34.00	29.31
September 2008	35.00-38.80	37.17

TABLE 1  
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS<sup>1</sup>

(Metric tons, contained cobalt)

Period	Metal <sup>2</sup>	Oxide and other chemical compounds <sup>3</sup>	Scrap	Total
2007:				
July	324	222	156	703
August	331	223	155	709
September	365	222	153	740
October	328	226	167	721
November	333	221	160	714
December	332	227	156	715
January-July <sup>f</sup>	2,260	1,580	1,130	4,960
January-August <sup>f</sup>	2,590	1,800	1,280	5,670
January-September <sup>f</sup>	2,950	2,020	1,440	6,410
January-December <sup>4</sup>	3,940	2,700	1,920	8,560
Year <sup>5</sup>	4,710	2,700	1,930	9,340
2008:				
January	338	223	158	720
February	329 <sup>r</sup>	219	160	708
March	321 <sup>r</sup>	223	167	711
April	301 <sup>r</sup>	226	170	697
May	341 <sup>r</sup>	223	162	726
June	319 <sup>r</sup>	225	164	708
July	318	221	150	688
August	315	226	166	707
September	317	224	154	695
January-July	2,270	1,560	1,130	4,960
January-August	2,580	1,790	1,300	5,670
January-September	2,900	2,010	1,450	6,360

<sup>r</sup>Revised.

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

<sup>2</sup>Includes metal powder.

<sup>3</sup>Data may include other cobalt materials.

<sup>4</sup>Data based on monthly reports.

<sup>5</sup>Includes annual reports.

TABLE 2  
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE<sup>1</sup>

(Metric tons, contained cobalt)

End use	2007					2008					
	January- July	January- August	January- September	January- December <sup>2</sup>	Year <sup>3</sup>	July	August	September	January- July <sup>4</sup>	January- August <sup>4</sup>	January- September <sup>4</sup>
Steel	356 <sup>r</sup>	406 <sup>r</sup>	457 <sup>r</sup>	612	725	49	49	49	345	394	443
Superalloys	2,190 <sup>r</sup>	2,500 <sup>r</sup>	2,850 <sup>r</sup>	3,810	4,340	299	312	302	2,190	2,500	2,810
Magnetic alloys	172 <sup>r</sup>	197 <sup>r</sup>	222 <sup>r</sup>	297	385	22	23	23	173	196	219
Other alloys <sup>5</sup>	W	W	W	W	225	W	W	W	W	W	W
Cemented carbides <sup>6</sup>	423 <sup>r</sup>	484 <sup>r</sup>	546 <sup>r</sup>	725	726	61	61	61	438	499	559
Chemical and ceramic uses <sup>7</sup>	1,660 <sup>r</sup>	1,900 <sup>r</sup>	2,140 <sup>r</sup>	2,850	2,880	234	239	237	1,650	1,890	2,130
Miscellaneous and unspecified	158 <sup>r</sup>	180 <sup>r</sup>	203 <sup>r</sup>	270	63	22	22	22	158	180	203
Total	4,960	5,670	6,410	8,560	9,340	688	707	695	4,960	5,670	6,360

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

<sup>2</sup>Data based on monthly reports.

<sup>3</sup>Includes annual reports.

<sup>4</sup>Includes revisions to prior months' data.

<sup>5</sup>Includes nonferrous alloys, welding materials, and wear-resistant alloys.

<sup>6</sup>Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

<sup>7</sup>Includes 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 MATERIALS<sup>1</sup>

(Metric tons, contained cobalt)

Period	Industry <sup>2</sup>				U.S. Government, metal <sup>5</sup>
	Metal <sup>3</sup>	Oxide and other chemical compounds <sup>4</sup>	Scrap	Total	
2007:					
July	346	154	82	582	1,030
August	351	150	77	579	1,020
September	360	151	87	598	989
October	354	173	71	598	925
November	356	168	60	585	784
December <sup>6</sup>	320	158	58	536	676
Yearend <sup>7</sup>	413	178	60	651	XX
2008:					
January	302	154	56	511	666
February	297 <sup>r</sup>	161	56	515 <sup>r</sup>	652
March	290 <sup>r</sup>	172	56	519 <sup>r</sup>	620
April	319 <sup>r</sup>	165	52	536 <sup>r</sup>	620
May	298 <sup>r</sup>	167	54	519 <sup>r</sup>	612
June	297 <sup>r</sup>	160	54	511 <sup>r</sup>	612
July	306	159	62	527	606
August	317	154	63	533	576
September	310	154	66	530	497

<sup>1</sup>Revised. XX Not applicable.

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

<sup>2</sup>Stocks reported by cobalt processors and consumers.

<sup>3</sup>Includes metal powder.

<sup>4</sup>Data may include other cobalt materials.

<sup>5</sup>Data from Defense National Stockpile Center; uncommitted material only.

<sup>6</sup>Data based on monthly reports.

<sup>7</sup>Includes annual reports.

TABLE 4a  
U.S. IMPORTS FOR CONSUMPTION OF COBALT THROUGH JUNE 2008, BY COUNTRY<sup>1</sup>

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

Period and country of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>		
2007:								
June	663,000	\$38,200,000	54,800	\$2,600,000	197,000	\$3,190,000	766,000	5,240,000
July	615,000	34,900,000	90,900	3,860,000	183,000	3,100,000	737,000	5,980,000
August	436,000	25,000,000	121,000	5,720,000	130,000	2,490,000	569,000	6,550,000
September	669,000	36,500,000	60,800	2,640,000	79,900	1,560,000	741,000	7,290,000
October	859,000	43,600,000	54,300	2,310,000	178,000	2,570,000	954,000	8,240,000
November	1,100,000	66,800,000	82,700	3,870,000	160,000	2,860,000	1,210,000	9,450,000
December	740,000	47,500,000	70,200	3,760,000	208,000	4,200,000	866,000	10,300,000
January -June	4,540,000	233,000,000	545,000	22,200,000	1,010,000	14,300,000	5,240,000	XX
January-December	8,960,000	487,000,000	1,020,000	44,400,000	1,950,000	31,100,000	10,300,000	XX
2008:								
January	939,000	65,800,000	44,100	2,320,000	194,000	4,110,000	1,040,000	1,040,000
February	942,000	69,700,000	105,000	6,710,000	401,000	4,060,000	1,140,000	2,180,000
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:								
Argentina	--	--	--	--	54,000	238,000	13,500	13,500
Australia	30,000	2,670,000	--	--	--	--	30,000	344,000
Austria	--	--	--	--	--	--	--	1,770
Belgium	38,200	2,770,000	75,500	4,070,000	--	--	92,600	401,000
Brazil	--	--	--	--	9,790	37,600	2,640	142,000
Canada	106,000	7,720,000	--	--	--	--	106,000	728,000
China	55,000	5,260,000	30,400	2,090,000	--	--	76,900	630,000
Croatia	--	--	--	--	11	2,620	3	3
Finland	29,300	3,310,000	8,680	628,000	245,000	3,370,000	123,000	833,000
France	2,740	363,000	--	--	--	--	2,740	15,200
Germany	--	--	2,580	298,000	--	--	1,860	9,960
India	--	--	--	--	93,700	360,000	25,300	116,000
Italy	--	--	1	3,070	--	--	1	1
Japan	9,120	1,020,000	--	--	--	--	9,120	70,300
Korea, Republic of	--	--	--	--	--	--	--	10,500
Liechtenstein	--	--	--	--	--	--	--	3,250
Morocco	40,000	3,930,000	--	--	--	--	40,000	224,000
Norway	199,000	19,300,000	--	--	--	--	199,000	779,000
Peru	--	--	--	--	--	--	--	524
Philippines	--	--	--	--	--	--	--	1,340
Russia	281,000	24,400,000	--	--	--	--	281,000	922,000
South Africa	40,000	4,120,000	--	--	--	--	40,000	142,000
Switzerland	--	--	--	--	--	--	--	768
Uganda	--	--	--	--	--	--	--	20,000
United Arab Emirates	--	--	--	--	20,000	275,000	5,400	5,400
United Kingdom	3,520	223,000	18,000	1,340,000	100,000	2,390,000	51,900	169,000
Zambia	40,000	3,980,000	--	--	--	--	40,000	200,000
Total	875,000	79,000,000	135,000	8,430,000	523,000	6,670,000	1,140,000	5,780,000
January-June	4,590,000	361,000,000	516,000	34,400,000	2,540,000	31,400,000	5,780,000	XX

XX Not applicable. -- Zero.

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

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

<sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>4</sup>Customs value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 4b  
U.S. IMPORTS FOR CONSUMPTION OF COBALT THROUGH JULY 2008, BY COUNTRY<sup>1</sup>

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

Period and country of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>		
2007:								
July	615,000	\$34,900,000	90,900	\$3,860,000	183,000	\$3,100,000	737,000	5,980,000
August	436,000	25,000,000	121,000	5,720,000	130,000	2,490,000	569,000	6,550,000
September	669,000	36,500,000	60,800	2,640,000	79,900	1,560,000	741,000	7,290,000
October	859,000	43,600,000	54,300	2,310,000	178,000	2,570,000	954,000	8,240,000
November	1,100,000	66,800,000	82,700	3,870,000	160,000	2,860,000	1,210,000	9,450,000
December	740,000	47,500,000	70,200	3,760,000	208,000	4,200,000	866,000	10,300,000
January-July	5,160,000	268,000,000	636,000	26,100,000	1,200,000	17,400,000	5,980,000	XX
January-December	8,960,000	487,000,000	1,020,000	44,400,000	1,950,000	31,100,000	10,300,000	XX
2008:								
January	939,000	65,800,000	44,100	2,320,000	194,000	4,110,000	1,040,000	1,040,000
February	942,000	69,700,000	105,000	6,710,000	401,000	4,060,000	1,140,000	2,180,000
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:								
Argentina	--	--	--	--	--	--	--	13,500
Australia	--	--	--	--	--	--	--	344,000
Austria	--	--	--	--	--	--	--	1,770
Belgium	38,000	4,000,000	16,300	1,280,000	--	--	49,800	451,000
Brazil	--	--	--	--	3,630	22,400	981	143,000
Canada	131,000	9,630,000	--	--	--	--	131,000	859,000
China	62,000	5,610,000	37,000	1,930,000	37,000	653,000	98,600	729,000
Croatia	--	--	--	--	--	--	--	3
Finland	28,900	3,160,000	28,700	2,150,000	380,000	2,820,000	159,000	992,000
France	2,190	267,000	--	--	--	--	2,190	17,400
Germany	2,460	216,000	1,300	144,000	--	--	3,390	13,400
India	--	--	--	--	93,700	360,000	25,300	142,000
Italy	--	--	--	--	--	--	--	1
Japan	13,400	1,460,000	1,190	61,200	--	--	14,200	84,500
Korea, Republic of	210	12,300	--	--	--	--	210	10,700
Liechtenstein	--	--	--	--	--	--	--	3,250
Morocco	30,000	2,570,000	--	--	--	--	30,000	254,000
Norway	121,000	12,200,000	--	--	--	--	121,000	900,000
Peru	--	--	--	--	--	--	--	524
Philippines	75	4,840	--	--	--	--	75	1,410
Russia	80,000	4,070,000	--	--	--	--	80,000	1,000,000
South Africa	--	--	500	29,800	--	--	360	142,000
Switzerland	--	--	--	--	--	--	--	768
Uganda	--	--	--	--	--	--	--	20,000
United Arab Emirates	--	--	--	--	--	--	--	5,400
United Kingdom	1,240	96,500	15,000	1,160,000	75,300	1,140,000	37,300	207,000
Zambia	39,000	2,800,000	--	--	--	--	39,000	239,000
Total	550,000	46,100,000	100,000	6,750,000	589,000	5,000,000	793,000	6,580,000
January-July	5,140,000	407,000,000	616,000	41,200,000	3,130,000	36,400,000	6,580,000	XX

XX Not applicable. -- Zero.

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

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

<sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>4</sup>Customs value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 4c  
U.S. IMPORTS FOR CONSUMPTION OF COBALT THROUGH AUGUST 2008, BY COUNTRY<sup>1</sup>

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

Period and country of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>		
2007:								
August	436,000	\$25,000,000	121,000	\$5,720,000	130,000	\$2,490,000	569,000	6,550,000
September	669,000	36,500,000	60,800	2,640,000	79,900	1,560,000	741,000	7,290,000
October	859,000	43,600,000	54,300	2,310,000	178,000	2,570,000	954,000	8,240,000
November	1,100,000	66,800,000	82,700	3,870,000	160,000	2,860,000	1,210,000	9,450,000
December	740,000	47,500,000	70,200	3,760,000	208,000	4,200,000	866,000	10,300,000
January-August	5,590,000	293,000,000	757,000	31,800,000	1,330,000	19,900,000	6,550,000	XX
January-December	8,960,000	487,000,000	1,020,000	44,400,000	1,950,000	31,100,000	10,300,000	XX
2008:								
January	939,000	65,800,000	44,100	2,320,000	194,000	4,110,000	1,040,000	1,040,000
February	942,000	69,700,000	105,000	6,710,000	401,000	4,060,000	1,140,000	2,180,000
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:								
Argentina	--	--	--	--	--	--	--	13,500
Australia	26,000	2,140,000	--	--	--	--	26,000	370,000
Austria	--	--	--	--	--	--	--	1,770
Belgium	26,500	2,100,000	46,000	3,040,000	--	--	59,600	511,000
Brazil	--	--	--	--	24,700	111,000	6,750	150,000
Canada	133,000	8,630,000	--	--	--	--	133,000	992,000
China	176,000	15,600,000	13,700	763,000	14,200	294,000	190,000	919,000
Croatia	--	--	--	--	--	--	--	3
Finland	12,400	1,310,000	12,500	846,000	277,000	2,230,000	108,000	1,100,000
France	1,740	168,000	--	--	--	--	1,740	19,100
Germany	2,280	197,000	1,300	137,000	--	--	3,220	16,600
India	--	--	--	--	183,000	702,000	49,300	191,000
Italy	--	--	--	--	--	--	--	1
Japan	12,000	1,290,000	--	--	--	--	12,000	96,500
Korea, Republic of	1,270	15,500	--	--	3,000	92,600	2,650	13,400
Liechtenstein	--	--	--	--	--	--	--	3,250
Morocco	20,000	1,280,000	--	--	--	--	20,000	274,000
Netherlands	2,100	15,500	--	--	--	--	2,100	2,100
Norway	20,000	1,600,000	--	--	--	--	20,000	920,000
Peru	--	--	--	--	--	--	--	524
Philippines	--	--	--	--	--	--	--	1,410
Russia	40,400	2,050,000	--	--	--	--	40,400	1,040,000
South Africa	20,700	2,050,000	--	--	--	--	20,700	163,000
Switzerland	--	--	--	--	--	--	--	768
Uganda	--	--	--	--	--	--	--	20,000
United Arab Emirates	--	--	--	--	--	--	--	5,400
United Kingdom	8,890	531,000	18,000	984,000	27,500	685,000	32,700	239,000
Zambia	20,000	1,680,000	--	--	--	--	20,000	259,000
Total	523,000	40,600,000	91,500	5,770,000	529,000	4,120,000	748,000	7,320,000
January-August	5,660,000	448,000,000	708,000	47,000,000	3,650,000	40,500,000	7,320,000	XX

XX Not applicable. -- Zero.

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

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

<sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>4</sup>Customs value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 5a  
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS THROUGH JUNE 2008 , BY COUNTRY<sup>1</sup>

(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 <sup>2</sup>	Quantity	Value <sup>2</sup>	Quantity	Value <sup>2</sup>
2007:						
June	1,450	\$147,000	74,100	\$1,160,000	13,800	\$1,570,000
July	634	82,400	132,000	2,190,000	14,000	1,650,000
August	2,290	84,800	102,000	1,630,000	19,300	1,990,000
September	452	66,000	53,000	560,000	14,400	1,440,000
October	9,110	487,000	88,000	1,400,000	20,000	1,890,000
November	1,230	73,700	63,600	1,220,000	19,600	2,380,000
December	2,940	189,000	85,800	1,630,000	13,900	1,460,000
January-June	24,300	1,620,000	681,000	8,870,000	104,000	9,160,000
January-December	41,000	2,600,000	1,210,000	17,500,000	206,000	20,000,000
2008:						
January	26,500	1,410,000	34,600	599,000	17,300	1,940,000
February	339	27,200	65,300	1,440,000	22,500	1,940,000
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:						
Belgium	--	--	--	--	8,570	832,000
Canada	24	3,320	14,400	209,000	2,210	509,000
China	--	--	--	--	180	27,000
Finland	1,080	66,900	--	--	--	--
France	--	--	20,600	712,000	54	34,300
Germany	--	--	24,300	326,000	1,070	266,000
Indonesia	--	--	15,200	42,100	--	--
Ireland	--	--	16,500	236,000	--	--
Japan	200	17,900	17,000	367,000	1,610	144,000
Mexico	--	--	4,040	60,700	58	2,640
Peru	--	--	412	14,500	--	--
Switzerland	--	--	169	2,060	--	--
Taiwan	--	--	--	--	26	4,950
United Kingdom	13,000	688,000	4,780	155,000	15,100	1,250,000
Total	14,300	776,000	117,000	2,130,000	28,900	3,070,000
January-June	58,600	3,260,000	672,000	14,500,000	142,000	13,600,000

-- Zero.

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

<sup>2</sup>Customs value.

Source: U.S. Census Bureau.

TABLE 5b

U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS THROUGH JULY 2008, BY COUNTRY<sup>1</sup>

(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 <sup>2</sup>	Quantity	Value <sup>2</sup>	Quantity	Value <sup>2</sup>
2007:						
July	634	\$82,400	132,000	\$2,190,000	14,000	\$1,650,000
August	2,290	84,800	102,000	1,630,000	19,300	1,990,000
September	452	66,000	53,000	560,000	14,400	1,440,000
October	9,110	487,000	88,000	1,400,000	20,000	1,890,000
November	1,230	73,700	63,600	1,220,000	19,600	2,380,000
December	2,940	189,000	85,800	1,630,000	13,900	1,460,000
January-July	24,900	1,700,000	813,000	11,100,000	118,000	10,800,000
January-December	41,000	2,600,000	1,210,000	17,500,000	206,000	20,000,000
2008:						
January	26,500	1,410,000	34,600	599,000	17,300	1,940,000
February	339	27,200	65,300	1,440,000	22,500	1,940,000
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:						
Belgium	--	--	24,500	1,010,000	--	--
Canada	54	3,320	2,640	39,700	2,300	428,000
Finland	2,060	135,000	--	--	--	--
France	--	--	3,920	40,900	2,170	254,000
Germany	56	5,930	--	--	5,280	456,000
India	--	--	--	--	75	14,000
Ireland	--	--	11,300	160,000	--	--
Japan	--	--	16,300	407,000	333	24,100
Mexico	--	--	4,160	77,800	--	--
Tunisia	--	--	9,470	177,000	--	--
United Kingdom	10,100	556,000	72,500	1,520,000	17,000	1,360,000
Total	12,300	700,000	145,000	3,430,000	27,200	2,540,000
January-July	70,900	3,960,000	817,000	18,000,000	169,000	16,100,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.<sup>2</sup>Customs value.

Source: U.S. Census Bureau.

TABLE 5c

U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS THROUGH AUGUST 2008, BY COUNTRY<sup>1</sup>

(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 <sup>2</sup>	Quantity	Value <sup>2</sup>	Quantity	Value <sup>2</sup>
2007:						
August	2,290	\$84,800	102,000	\$1,630,000	19,300	\$1,990,000
September	452	66,000	53,000	560,000	14,400	1,440,000
October	9,110	487,000	88,000	1,400,000	20,000	1,890,000
November	1,230	73,700	63,600	1,220,000	19,600	2,380,000
December	2,940	189,000	85,800	1,630,000	13,900	1,460,000
January-August	27,200	1,780,000	915,000	12,700,000	138,000	12,800,000
January-December	41,000	2,600,000	1,210,000	17,500,000	206,000	20,000,000
2008:						
January	26,500	1,410,000	34,600	599,000	17,300	1,940,000
February	339	27,200	65,300	1,440,000	22,500	1,940,000
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:						
Canada	24	3,320	--	--	2,140	409,000
China	--	--	--	--	500	65,200
Finland	1,510	120,000	--	--	--	--
France	60	7,430	2,130	22,200	--	--
Germany	--	--	13,300	149,000	4,110	639,000
Indonesia	--	--	--	--	13	10,200
Ireland	--	--	19,400	291,000	--	--
Japan	300	25,800	5,060	220,000	3,200	229,000
Mexico	--	--	2,060	51,300	--	--
Taiwan	--	--	3,580	56,800	17	10,100
Thailand	--	--	622	4,980	--	--
United Kingdom	--	--	10,200	312,000	29,300	2,220,000
Total	1,900	156,000	56,400	1,110,000	39,300	3,580,000
January-August	72,800	4,120,000	874,000	19,100,000	208,000	19,700,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.<sup>2</sup>Customs value.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF COBALT MATERIALS<sup>1</sup>

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

Period	Unwrought cobalt, powders, matte, waste and scrap <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>	Quantity	Value <sup>4</sup>		
2007:								
June	70,200	\$3,090,000	65,700	\$2,620,000	1,690	\$27,400	118,000	1,550,000
July	200,000	5,910,000	33,200	1,270,000	41,500	490,000	234,000	1,780,000
August	187,000	7,510,000	118,000	786,000	3,450	22,000	273,000	2,060,000
September	257,000	7,890,000	11,200	466,000	15,700	338,000	269,000	2,320,000
October	183,000	4,820,000	27,900	1,280,000	41,300	547,000	213,000	2,540,000
November	265,000	5,600,000	24,900	1,120,000	227	5,530	283,000	2,820,000
December	226,000	7,420,000	65,200	1,640,000	19,700	125,000	278,000	3,100,000
January-June	1,100,000	30,100,000	583,000	21,900,000	113,000	1,130,000	1,550,000	XX
January-July	1,300,000	36,000,000	616,000	23,200,000	155,000	1,620,000	1,780,000	XX
January-August	1,490,000	43,500,000	734,000	24,000,000	158,000	1,640,000	2,060,000	XX
January-December	2,420,000	69,300,000	863,000	28,500,000	235,000	2,660,000	3,100,000	XX
2008								
January	155,000	5,820,000	21,000	882,000	7,430	235,000	171,000	171,000
February	190,000	8,330,000	76,200	1,800,000	56,700	2,350,000	259,000	430,000
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
January-June	1,210,000	52,400,000	298,000	10,600,000	159,000	3,940,000	1,460,000	XX
January-July	1,390,000	61,800,000	353,000	13,500,000	192,000	4,570,000	1,690,000	XX
January-August	1,630,000	78,100,000	387,000	15,600,000	195,000	4,600,000	1,960,000	XX

XX Not applicable.

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

<sup>2</sup>May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

<sup>3</sup>Cobalt acetates and cobalt chlorides.

<sup>4</sup>Free alongside ship (f.a.s.) value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to prior months.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES<sup>1</sup>

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

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value <sup>2</sup>	Quantity	Value <sup>2</sup>
2007:				
June	132,000	\$8,670,000	6,050	\$79,900
July	128,000	7,550,000	110,000	279,000
August	95,300	6,180,000	7,850	180,000
September	105,000	6,560,000	40,200	1,720,000
October	120,000	7,330,000	33,200	1,490,000
November	135,000	9,060,000	82,900	2,270,000
December	97,100	6,300,000	123,000	6,020,000
January-June	757,000	46,300,000	206,000	5,120,000
January-July	886,000	53,900,000	316,000	5,390,000
January-August	981,000	60,100,000	324,000	5,570,000
January-December	1,440,000	89,300,000	603,000	17,100,000
2008:				
January	117,000	8,520,000	31,900	2,560,000
February	143,000	11,500,000	33,400	714,000
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
January-June	695,000	52,600,000	305,000	22,200,000
January-July	789,000	60,600,000	309,000	22,500,000
January-August	898,000	69,400,000	316,000	22,800,000

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

<sup>2</sup>Free alongside ship (f.a.s.) value.

Source: U.S. Census Bureau.