

Mineral Industry Surveys

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COBALT IN MARCH 2010

Preliminary data indicate that U.S. cobalt consumption during the quarter ending March 31, 2010, was 6% higher than that consumed during the quarter ending December 31, 2009, and 4% higher than that consumed during the quarter ending March 31, 2009, according to the U.S. Geological Survey. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through February 2010 was more than two times that imported during the same period in 2009. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through February 2010 was 12% higher than that during the same period in 2009.

Price

U.S. spot prices for electrolytic cobalt, minimum 99.8% cobalt, in dollars per pound from Platts Metals Week, are listed below.

<u>Month</u>	<u>Price range</u>	<u>Average price</u>
March 2010	19.50-23.75	21.65

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2009:				
March	263 ^r	170 ^r	146	578 ^r
April	264 ^r	168 ^r	146	577 ^r
May	242 ^r	169 ^r	148	560 ^r
June	253 ^r	185 ^r	143	580 ^r
July	252 ^r	175 ^r	143	570 ^r
August	251 ^r	176 ^r	145	573 ^r
September	264 ^r	177 ^r	151	592 ^r
October ^r	254	172	156	583
November	245 ^r	172 ^r	156	574 ^r
December	243 ^r	168 ^r	157	568 ^r
January-March ^r	805	510	437	1,750
January-December ⁴	3,070 ^r	2,070 ^r	1,780	6,930 ^r
2010:				
January	270 ^r	170 ^r	156	597 ^r
February	290 ^r	170 ^r	148	608 ^r
March	291	171	159	622
January-March ⁴	851	512	464	1,830

^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	2009		2010	
	January-March	January-December ²	March	January-March ³
Steel	125 ^r	499 ^r	48	144
Superalloys	819 ^r	3,180 ^r	303	875
Magnetic alloys	66 ^r	259 ^r	22	65
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	150 ^r	593 ^r	49	148
Chemical and ceramic uses ⁶	525 ^r	2,130 ^r	176	527
Miscellaneous and unspecified	68	270	22	68
Total	1,750 ^r	6,930 ^r	622	1,830

^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.

³May include revisions to prior months.

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
 REPORTED STOCKS OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	U.S. Industry ²				U.S. Government, metal ⁶	LME ³ , metal		Total
	Metal ⁴	Oxide and other chemical compounds ⁵	Scrap	Total		U.S. warehouse	Non-U.S. warehouse	
2009:								
March	302 ^r	171 ^r	104 ^r	577 ^r	455	XX	XX	XX
April	308 ^r	169 ^r	103 ^r	580 ^r	455	XX	XX	XX
May	305 ^r	169 ^r	100 ^r	574 ^r	455	XX	XX	XX
June	301 ^r	154 ^r	113 ^r	569 ^r	380	XX	XX	XX
July	304 ^r	152 ^r	108 ^r	564 ^r	310	XX	XX	XX
August	298 ^r	155 ^r	103 ^r	556 ^r	310	XX	XX	XX
September	279 ^r	152 ^r	91 ^r	522 ^r	304	XX	XX	XX
October	266 ^r	156 ^r	84 ^r	506 ^r	304	XX	XX	XX
November	262 ^r	159 ^r	68 ^r	489 ^r	295	XX	XX	XX
December ⁷	255 ^r	161 ^r	66 ^r	482 ^r	293	XX	XX	XX
2010:								
January	261 ^r	176 ^r	57 ^r	494 ^r	293	XX	XX	XX
February	270 ^r	172 ^r	66 ^r	507 ^r	293	--	--	--
March	313	167	65	545	301	--	--	--

^rRevised. XX Not applicable. -- Zero.

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

²Stocks reported by cobalt processors and consumers.

³London Metal Exchange.

⁴Includes metal powder.

⁵Data may include other cobalt materials.

⁶Data from Defense National Stockpile Center; uncommitted material only.

⁷Data based on monthly reports.

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

(Metric tons, 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 (thousands)	Quantity	Value ⁴ (thousands)	Quantity	Value ⁴ (thousands)		
2009:								
February	574	\$18,600	23	\$757	161	\$1,730	644	1,050
March	424	12,300	109	2,720	139	1,610	549	1,600
April	469	15,200	98	2,280	251	3,610	635	2,240
May	546	18,100	181	3,280	116	1,790	722	2,960
June	436	14,000	209	6,120	158	2,040	645	3,610
July	473	15,100	153	3,840	120	1,370	622	4,230
August	491	17,900	135	3,600	191	2,160	648	4,880
September	544	20,800	92	2,460	174	2,160	671	5,550
October	592	18,200	139	3,030	237	3,590	782	6,330
November	371	13,800	167	4,660	215	2,640	563	6,890
December	610	23,000	118	3,860	269	3,280	785	7,680
January-February	919	29,100	61	1,660	262	3,090	1,050	XX
January-December	5,870	198,000	1,460	37,500	2,130	27,300	7,680	XX
2010:								
January	661	26,100	174	5,050	332	3,220	882	882
February:								
Australia	39	1,940	--	--	--	--	39	44
Belgium	9	397	27	837	--	--	28	93
Brazil	--	--	--	--	--	--	--	10
Canada	5	260	35	591	--	--	30	86
China	262	10,200	(7)	3	143	376	300	588
Congo (Kinshasa)	20	866	--	--	--	--	20	20
Finland	43	2,230	--	--	171	2,370	101	162
France	1	63	--	--	--	--	1	8
Germany	1	68	--	--	--	--	1	3
India	15	744	--	--	58	482	31	56
Japan	43	2,140	--	--	--	--	43	82
Lithuania	--	--	--	--	4	22	1	1
Morocco	30	1,210	--	--	--	--	30	50
Norway	50	2,160	--	--	--	--	50	159
Russia	445	13,200	--	--	--	--	445	536
South Africa	41	1,930	--	--	--	--	41	81
Sweden	4	133	--	--	--	--	4	4
Taiwan	1	21	--	--	--	--	1	1
Uganda	21	889	--	--	--	--	21	21
United Kingdom	(7)	13	34	1,180	19	362	32	77
Zambia	25	1,080	--	--	--	--	25	45
Total	1,050	39,500	97	2,610	394	3,610	1,240	2,130
January-February	1,710	65,600	271	7,660	726	6,830	2,130	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.

⁷Less than ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, 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 (thousands)	Quantity	Value ² (thousands)	Quantity	Value ² (thousands)
2009:						
February	60	\$2,360	31	\$490	21	\$2,190
March	40	1,030	58	865	20	1,800
April	109	1,870	79	969	10	1,220
May	94	2,650	31	438	33	2,020
June	24	646	35	546	9	1,200
July	(3)	41	102	1,310	7	899
August	29	789	29	360	7	1,050
September	(3)	10	32	506	19	1,040
October	1	41	46	694	7	1,090
November	(3)	16	55	633	5	818
December	1	126	81	1,320	6	873
January-February	89	3,050	100	1,480	30	3,660
January-December	387	10,300	650	9,120	154	15,700
2010:						
January	1	41	96	1,470	5	771
February:						
Canada	1	40	--	--	1	215
China	--	--	--	--	(3)	12
Finland	(3)	113	--	--	(3)	5
France	--	--	--	--	(3)	25
Germany	1	107	--	--	5	326
Ireland	--	--	16	227	--	--
Japan	--	--	--	--	(3)	3
Malaysia	--	--	1	15	--	--
Singapore	--	--	4	57	--	--
United Kingdom	21	870	64	1,040	3	229
Total	23	1,130	85	1,340	10	815
January-February	24	1,170	180	2,810	16	1,590

-- Zero.

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

²Customs value.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS¹

(Metric tons, 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 (thousands)	Quantity	Value ⁴ (thousands)	Quantity	Value ⁴ (thousands)		
2009:								
February	138	\$5,180	20	\$357	24	\$176	158	423
March	166	7,080	26	412	25	577	190	613
April	164	5,560	15	337	6	83	176	789
May	261	7,070	15	506	34	155	280	1,070
June	222	6,130	11	158	9	70	232	1,300
July	118	4,080	24	746	14	381	139	1,440
August	195	6,500	19	622	58	1,410	222	1,660
September	135	5,220	6	90	319	2,120	216	1,880
October	182	6,930	6	158	69	2,640	203	2,080
November	171	5,500	26	676	18	170	194	2,280
December	144	5,420	8	373	57	576	163	2,440
January-February	360	17,800	69	1,480	52	188	423	XX
January-December	2,120	77,300	225	5,550	659	8,370	2,440	XX
2010:								
January	183	6,030	75	253	31	1,340	244	244
February	211	6,990	12	444	43	825	230	474
January-February	394	13,000	87	697	74	2,160	474	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.

⁶May include revisions to prior months.

Source: U.S. Census Bureau.

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

(Metric tons, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value ² (thousands)	Quantity	Value ² (thousands)
2009:				
February	118	\$6,500	41	\$54
March	148	8,680	--	--
April	83	5,620	31	454
May	114	6,890	125	305
June	72	4,350	51	262
July	134	8,370	1,240	1,520
August	136	6,760	177	623
September	97	6,280	22	871
October	116	6,780	48	448
November	114	6,050	128	724
December	118	6,540	25	1,080
January-February	208	12,200	47	65
January-December	1,340	78,500	1,900	6,360
2010:				
January	141	7,440	269	2,050
February	142	7,080	890	1,900
January-February	282	14,500	1,160	3,950

-- 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.