

Mineral Industry Surveys

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COBALT IN MAY 2011

Preliminary data indicate that U.S. cobalt consumption during January through May 2011 was 15% higher than consumption during the first 5 months of 2010. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through April 2011 was 6% less than that imported during the same period in 2010. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through April 2011 was 19% more than that exported during the same period in 2010.

Prices

Prices for cobalt metal, in dollars per pound, in May 2011 are listed below.

<u>Type</u>	<u>Price range</u>	<u>Average price</u>
U.S. spot ¹	18.75-20.50	19.58
LME cash mean ²	XX	17.27

XX Not applicable.

¹Source: Platts Metals Week, minimum 99.8% cobalt cathode.

²London Metal Exchange, mean of the cash buyer price and the cash seller and settlement price, minimum 99.3% cobalt briquettes, cathode, ingot, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2010:				
May	264	179	161	604
June	285	182	160	627
July	247	171	180	597
August	256	174	163	593
September	262	184	160	606
October	266	177	155	598
November	298	179	165	642
December	222	187	204	614
January–May ^r	1,470	872	785	3,130
January–December ⁴	3,300	2,130	1,970	7,400
2011:				
January	247	176	208	631
February	256	180	217	653
March	427	179	162	768
April	341	174	169	684
May	491	182	171	844
January–May	1,760	892	927	3,580

^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	2010		2011	
	January–May	January–December ²	May	January–May ³
Steel	223 ^r	535	45	223
Superalloys	1,450 ^r	3,350	503	1,890
Magnetic alloys	108 ^r	258	21	104
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	290 ^r	696	66	328
Chemical and ceramic uses ⁶	899 ^r	2,190	187	919
Miscellaneous and unspecified	154 ^r	371	23	113
Total	3,130 ^r	7,400	844	3,580

^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 previously published 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	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.	Non-U.S.	
						warehouse	warehouse	
2010:								
May	302	174	47	523	301	--	113	113
June	292	168	51	511	301	20	132	152
July	278	167	64	509	301	25	163	188
August	281	183	73	537	301	50	162	212
September	282	179	72	533	301	42	132	174
October	258	181	79	517	301	32	174	206
November	263	175	83	521	301	31	183	214
December ⁷	313	161	79	554	301	23	255	278
2011:								
January	301	156	49	506	301	19	287	306
February	270	168	39	477	301	13	219	232
March	305	158	66	530	301	88	210	298
April	353	156	81	590	301	108	283	391
May	330	167	76	572	301	108	255	363

¹Revised. -- 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 Logistics Agency, DLA Strategic Materials (formerly 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)		
2010:								
April	836	\$32,300	159	\$4,650	304	\$2,250	1,040	4,070
May	726	31,800	260	7,790	273	3,490	1,000	5,070
June	504	23,100	155	4,900	172	2,130	668	5,740
July	896	35,900	128	3,430	107	1,410	1,020	6,760
August	800	30,800	227	6,940	61	705	982	7,740
September	571	22,600	138	3,820	175	2,250	729	8,470
October	671	26,100	148	4,410	94	1,090	808	9,280
November	790	31,300	224	7,830	147	1,820	998	10,300
December	632	22,600	137	4,650	166	1,330	776	11,100
January–April	3,160	125,000	597	16,900	1,540	14,700	4,070	XX
January–December	8,750	350,000	2,010	60,700	2,740	28,900	11,100	XX
2011:								
January	812	29,700	202	6,300	242	2,480	1,030	1,030
February	812	31,500	158	4,670	219	3,020	1,000	2,030
March	876	35,400	113	3,630	280	2,560	1,050	3,080
April:								
Australia	115	4,370	--	--	--	--	115	416
Belgium	9	456	--	--	--	--	9	67
Brazil	20	766	--	--	4	70	21	73
Canada	26	1,230	128	1,980	--	--	118	271
China	20	802	15	394	21	463	40	875
Congo (Kinshasa)	9	371	--	--	--	--	9	129
Finland	16	883	25	819	217	3,010	111	369
France	(7)	16	--	--	--	--	(7)	3
Germany	--	--	1	52	--	--	(7)	4
India	23	912	--	--	18	150	28	134
Italy	--	--	--	--	--	--	--	4
Japan	14	627	1	96	--	--	15	102
Morocco	10	358	--	--	--	--	10	60
Norway	45	1,830	--	--	--	--	45	424
Russia	87	3,650	--	--	(7)	2	87	401
South Africa	3	111	--	--	--	--	3	27
Sweden	4	145	--	--	--	--	4	6
Uganda	--	--	--	--	--	--	--	6
United Kingdom	1	26	20	593	19	302	21	126
Zambia	98	3,800	--	--	--	--	98	319
Other	--	--	--	--	--	--	--	1
Total	502	20,400	189	3,930	280	3,990	735	3,820
January–April	3,000	117,000	663	18,500	1,020	12,100	3,820	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 previously published data.

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)
2010:						
April	20	\$860	46	\$642	12	\$1,180
May	1	79	79	1,080	7	1,040
June	(3)	22	83	1,340	16	1,460
July	22	925	62	1,010	17	1,640
August	12	537	94	1,180	17	1,780
September	1	60	25	461	16	1,750
October	56	2,200	36	669	29	2,670
November	38	1,760	64	920	13	1,650
December	26	1,150	56	872	13	1,570
January–April	46	2,160	321	5,350	75	5,560
January–December	202	8,890	819	12,900	202	19,100
2011:						
January	40	1,540	61	686	14	1,840
February	64	2,420	35	657	26	2,240
March	56	2,140	74	1,430	23	2,600
April:						
Canada	42	1,400	--	--	3	850
China	--	--	--	--	(3)	77
France	--	--	23	487	7	472
Germany	2	121	14	123	4	434
India	--	--	3	62	--	--
Ireland	--	--	13	320	--	--
Japan	--	--	35	407	1	76
Mexico	--	--	--	--	(3)	2
Poland	--	--	--	--	(3)	12
Switzerland	--	--	--	--	(3)	4
Tunisia	--	--	2	40	--	--
United Kingdom	--	--	29	600	6	479
Total	44	1,520	119	2,040	21	2,410
January–April	203	7,620	289	4,810	83	9,090

-- 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)		
2010:								
April	216	\$6,340	87	\$296	39	\$535	287	1,020
May	173	6,040	11	349	61	609	196	1,220
June	190	6,120	3	113	37	399	202	1,420
July	198	7,440	6	164	30	326	209	1,630
August	235	7,150	2	51	1	17	236	1,860
September	254	6,090	(7)	14	49	512	266	2,130
October	222	6,510	3	87	41	764	234	2,360
November	143	4,530	1	32	34	387	152	2,520
December	113	4,300	(7)	12	37	412	122	2,640
January–April	819	26,900	232	1,550	147	3,080	1,020	XX
January–December	2,350	75,000	258	2,380	436	6,510	2,640	XX
2011:								
January	238	7,810	19	422	53	549	264	264
February	217	6,840	6	187	32	350	229	493
March	414	9,120	40	184	34	405	451	944
April	228	7,950	49	958	42	417	273	1,220
January–April	1,100	31,700	114	1,750	161	1,720	1,220	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 previously published data.

⁷Less than ½ unit.

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)
2010:				
April	162	\$9,490	(3)	\$8
May	135	8,310	20	914
June	174	9,800	135	378
July	106	6,510	226	503
August	126	7,140	64	2,180
September	134	7,870	675	1,630
October	148	8,190	31	2,150
November	139	8,250	4	229
December	125	8,050	277	801
January–April	591	32,100	1,180	4,220
January–December	1,680	96,200	2,610	13,000
2011:				
January	103	6,360	20	50
February	121	7,040	--	--
March	123	7,400	--	--
April	124	7,200	600	1,050
January–April	471	28,000	619	1,100

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

²Free alongside ship (f.a.s.) value.

³Less than ½ unit.

Source: U.S. Census Bureau.