

Mineral Industry Surveys

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COBALT IN APRIL 2011

Preliminary data indicate that U.S. cobalt consumption during January through April 2011 was 9% higher than consumption during the first 4 months of 2010. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through March 2011 was slightly more 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 March 2011 was 29% more than that exported during the same period in 2010.

Prices

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

<u>Type</u>	<u>Price range</u>	<u>Average price</u>
U.S. spot ¹	16.50-19.00	17.84
LME cash mean ²	XX	16.75

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:				
April ^r	301	173	157	631
May ^r	264	179	161	604
June ^r	285	182	160	627
July ^r	247	171	180	597
August ^r	256	174	163	593
September ^r	262	184	160	606
October ^r	266	177	155	598
November ^r	298	179	165	642
December ^r	222	187	204	614
January–April ^r	1,200	694	624	2,520
January–December ^{r, 4}	3,300	2,130	1,970	7,400
2011:				
January ^r	247	176	208	631
February ^r	256	180	217	653
March ^r	427	179	162	768
April	341	174	169	684
January–April	1,270	710	755	2,740

^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–April	January–December ²	April	January–April ³
Steel	178 ^r	535 ^r	45	178
Superalloys	1,180 ^r	3,350 ^r	351	1,390
Magnetic alloys	87 ^r	258 ^r	21	84
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	232 ^r	696 ^r	65	262
Chemical and ceramic uses ⁶	715 ^r	2,190 ^r	179	731
Miscellaneous and unspecified	124 ^r	371 ^r	23	90
Total	2,520 ^r	7,400 ^r	684	2,740

^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 MATERIALS ¹

(Metric tons, contained cobalt)

Period	U.S. Industry ²				U.S. Government, metal ⁶	LME ³ , metal		
	Metal ⁴	Oxide and other chemical compounds ⁵	Scrap	Total		U.S.	Non-U.S.	Total
						warehouse	warehouse	
2010:								
April	308 ^r	181	43 ^r	532 ^r	301	--	38	38
May	302 ^r	174	47 ^r	523 ^r	301	--	113	113
June	292 ^r	168	51 ^r	511 ^r	301	20	132	152
July	278 ^r	167	64 ^r	509 ^r	301	25	163	188
August	281 ^r	183 ^r	73 ^r	537 ^r	301	50	162	212
September	282 ^r	179 ^r	72 ^r	533 ^r	301	42	132	174
October	258 ^r	181	79 ^r	517 ^r	301	32	174	206
November	263 ^r	175	83 ^r	521 ^r	301	31	183	214
December ⁷	313 ^r	161	79 ^r	554 ^r	301	23	255	278
2011:								
January	301 ^r	156	49 ^r	506 ^r	301	19	287	306
February	270 ^r	168	39 ^r	477 ^r	301	13	219	232
March	305 ^r	158 ^r	66 ^r	530 ^r	301	88	210	298
April	353	156	81	590	301	108	283	391

^rRevised. -- 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:								
March	606	\$27,500	168	\$4,640	513	\$5,640	902	3,030
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–March	2,320	93,100	438	12,300	1,240	12,500	3,030	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:								
Australia	88	3,340	--	--	--	--	88	301
Belgium	5	185	12	384	--	--	14	58
Brazil	9	387	--	--	9	76	11	52
Canada	53	2,270	43	1,460	--	--	85	152
China	179	7,170	29	862	113	492	234	835
Congo (Kinshasa)	30	1,120	--	--	--	--	30	120
Finland	19	1,050	3	77	79	1,250	53	258
Germany	(7)	2	1	54	--	--	1	4
India	10	391	--	--	74	675	30	106
Italy	--	--	--	--	--	--	--	4
Japan	51	2,050	5	192	--	--	55	87
Morocco	10	389	--	--	--	--	10	50
Norway	164	6,910	--	--	--	--	164	379
Russia	129	5,200	--	--	(7)	2	129	314
South Africa	20	782	--	--	--	--	20	24
Uganda	--	--	--	--	--	--	--	6
United Kingdom	16	479	20	603	5	65	31	105
Zambia	90	3,590	--	--	--	--	90	221
Other	2	123	--	--	--	--	2	6
Total	876	35,400	113	3,630	280	2,560	1,050	3,080
January–March	2,500	96,600	473	14,600	741	8,060	3,080	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:						
March	2	\$128	95	\$1,900	47	\$2,800
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–March	26	1,300	275	4,710	63	4,380
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:						
Austria	(3)	10	--	--	--	--
Bahamas, The	--	--	7	48	--	--
Belgium	--	--	--	--	1	34
Canada	37	1,430	--	--	3	736
China	--	--	--	--	(3)	14
France	--	--	--	--	5	403
Germany	1	43	3	60	2	536
Ireland	--	--	15	413	--	--
Israel	--	--	1	12	--	--
Japan	--	--	31	477	2	192
Mexico	--	--	(3)	14	--	--
Singapore	--	--	(3)	2	--	--
Switzerland	--	--	--	--	(3)	15
Tunisia	--	--	9	193	--	--
United Kingdom	18	655	9	206	9	670
Total	56	2,140	74	1,430	23	2,600
January–March	160	6,090	171	2,770	62	6,680

-- 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:								
March	210	\$7,490	58	\$562	34	\$380	260	734
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–March	603	20,500	145	1,260	108	2,540	734	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
January–March	869	23,800	65	793	119	1,300	944	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.

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:				
March	147	\$8,090	22	\$263
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–March	429	22,600	1,180	4,210
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	--	--
January–March	347	20,800	20	50

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.