

Mineral Industry Surveys

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COBALT IN NOVEMBER 2010

Preliminary data indicate that U.S. cobalt consumption during January through November 2010 was 5% higher than consumption during the first 11 months of 2009, according to the U.S. Geological Survey. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals was 47% higher during January through October 2010 than that during the same period in 2009. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through October 2010 was 14% higher than that exported during the same period in 2009.

London Metal Exchange stocks are included in table 3.

Prices

Prices for cobalt metal, in dollars per pound, in November 2010 are listed below.

<u>Type</u>	<u>Price range</u>	<u>Average price</u>
U.S. spot ¹	16.00-20.50	18.56
LME cash mean ²	XX	16.80

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
2009:				
November	238	172	156	566
December	236	168	157	560
January-November	2,750 ^r	1,910 ^r	1,620	6,280 ^r
January-December ⁴	2,980	2,070	1,780	6,840
Year ⁵	3,540	2,130	1,790	7,460
2010:				
January	273	170	156	600
February	293	170	148	611
March	294	171	159	625
April	287	170	156	613
May	250	176	160	586
June	271	179	159	609
July	233	168	179	580
August	242	172	162	575
September	248	181	159	588
October	252	174	154	580
November	285	176	164	624
January-November	2,930	1,910	1,760	6,590

^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.

⁵Includes annual reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE¹

(Metric tons, contained cobalt)

End use	2009			2010	
	January- November	January- December ²	Year ³	November	January- November ⁴
Steel	457 ^r	499	510	48	528
Superalloys	2,920 ^r	3,180	3,680	298	3,040
Magnetic alloys	238 ^r	259	295	22	234
Other alloys ⁵	W	W	221	W	W
Cemented carbides ⁶	461 ^r	503	503	53	577
Chemical and ceramic uses ⁷	1,960 ^r	2,130	2,190	181	1,960
Miscellaneous and unspecified	248 ^r	270	63	22	248
Total	6,280 ^r	6,840	7,460	624	6,590

^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.

³Includes annual reports.

⁴May include revisions to prior month(s).

⁵Includes nonferrous alloys, welding materials, and wear-resistant alloys.

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

⁷Includes 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	
2009:								
November	262	159	68	489	295	XX	XX	XX
December ⁷	255	161	66	482	293	XX	XX	XX
Yearend ⁸	347	171	68	587	XX	XX	XX	XX
2010:								
January	261	176	57	494	293	XX	XX	XX
February	270	172	66	507	293	--	--	--
March	313	167	65	545	301	--	--	--
April	313	173	62	548	301	--	38	38
May	305	166	65	537	301	--	113	113
June	295	161	69	525	301	20	132	152
July	281	159	83	522	301	25	163	188
August	283	176	91	550	301	50	162	212
September	284	172	91	546	301	42	132	174
October	259	173	97	530	301	32	174	206
November	264	168	101	533	301	31	183	214

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.

⁵**Data 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.

⁸Includes annual 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	Quantity	Value ⁴	Quantity	Value ⁴		
		(thousands)		(thousands)		(thousands)		
2009:								
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-October	4,890	161,000	1,180	29,000	1,650	21,400	6,330	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	1,050	39,500	97	2,610	394	3,610	1,240	2,130
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:								
Australia	88	3,160	--	--	--	--	88	623
Belgium	4	142	26	937	--	--	23	413
Brazil	5	212	--	--	1	21	5	144
Canada	3	196	43	1,140	--	--	34	389
China	151	5,420	--	--	4	45	152	2,320
Congo (Kinshasa)	--	--	--	--	--	--	--	412
Finland	12	604	26	769	46	649	48	748
France	1	49	--	--	--	--	1	31
Germany	(7)	13	1	55	--	--	1	18
India	--	--	--	--	18	174	5	138
Japan	28	1,270	--	--	--	--	28	250
Morocco	20	826	--	--	--	--	20	205
Norway	99	3,850	--	--	--	--	99	939
Russia	125	4,850	--	--	--	--	125	1,350
South Africa	12	600	--	--	--	--	12	317
Uganda	15	595	--	--	--	--	15	148
United Kingdom	2	85	52	1,520	23	174	46	331
Zambia	105	4,190	--	--	--	--	105	451
Other	1	36	--	--	1	29	1	47
Total	671	26,100	148	4,410	94	1,090	808	9,280
January-October	7,330	296,000	1,650	48,200	2,420	25,800	9,280	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:						
October	1	41	46	694	7	1,090
November	(3)	16	55	633	5	818
December	1	126	81	1,320	6	873
January-October	386	10,100	513	7,170	143	14,000
January-December	387	10,300	650	9,120	154	15,700
2010:						
January	1	41	96	1,470	5	771
February	23	1,130	85	1,340	10	815
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:						
Austria	(3)	10	--	--	--	--
Barbados	--	--	4	68	--	--
Belgium	1	40	--	--	1	34
Canada	35	1,260	2	44	2	514
China	--	--	--	--	1	214
France	--	--	--	--	6	544
Germany	(3)	19	--	--	9	685
Ireland	--	--	19	340	--	--
Japan	--	--	3	61	2	80
Korea, Republic of	--	--	1	25	--	--
Mexico	--	--	1	12	--	--
New Zealand	--	--	(3)	7	--	--
Switzerland	--	--	--	--	(3)	2
Taiwan	--	--	--	--	(3)	3
Thailand	--	--	4	91	--	--
United Kingdom	19	867	1	21	7	589
Total	56	2,200	36	669	29	2,670
January-October	138	5,980	699	11,100	176	15,900

-- 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	Quantity	Value ⁴	Quantity	Value ⁴		
		(thousands)		(thousands)		(thousands)		
2009:								
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-October	1,800	66,300	191	4,500	584	7,620	2,080	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
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
January-October	2,090	66,200	257	2,330	365	5,710	2,360	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 CONCENTRATES ¹

(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:				
October	116	6,780	48	448
November	114	6,050	128	724
December	118	6,540	25	1,080
January-October	1,110	65,900	1,740	4,550
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
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
January-October	1,410	79,900	2,330	12,000

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.