

Mineral Industry Surveys

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: ksheddd@usgs.gov

Cheryl J. Crawford (Data)
Telephone: (703) 648-7989
Fax: (703) 648-7792
E-mail: cjcrawfo@usgs.gov

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

COBALT IN OCTOBER 2011

Preliminary data indicate that U.S. cobalt consumption during January through October 2011 was 16% higher than that consumed during the first 10 months of 2010. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through September 2011 was 7% 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 September 2011 was 21% more than that exported during the same period in 2010.

Prices

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

Type	Price range	Average price
U.S. spot ¹	14.90-17.70	16.03
LME cash mean ²	XX	13.88

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:				
October	266	176	157	600
November	298	179	166	643
December	223	187	206	616
January–October ^r	2,780	1,760	1,620	6,160
January–December ⁴	3,300	2,120	1,990	7,420
2011:				
January	247	176	209	633
February	256	180	219	654
March	427	179	164	769
April	341	174	170	685
May	491	182	173	846
June	577	181	194	952
July	274	176	177	626
August	307	178	170	655
September	299	176	183	657
October	284	182	183	649
January–October	3,500	1,780	1,840	7,130

^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–October	January–December ²	October	January–October ³
Steel	446 ^r	535	45	446
Superalloys	2,780 ^r	3,350	307	3,740
Magnetic alloys	216 ^r	258	21	210
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	580 ^r	696	65	655
Chemical and ceramic uses ⁶	1,830 ^r	2,210	189	1,850
Miscellaneous and unspecified	309 ^r	371	22	225
Total	6,160 ^r	7,420	649	7,130

^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		
	Metal ⁴	Oxide and other chemical compounds ⁵	Scrap	Total		U.S.	Non-U.S.	Total
						warehouse	warehouse	
2010:								
October	W	182	W	525	301	32	174	206
November	W	177	W	530	301	31	183	214
December ⁷	W	163	W	563	301	23	255	278
2011:								
January	W	158	W	516	301	19	287	306
February	W	169	W	487	301	13	219	232
March	W	160	W	539	301	88	210	298
April	W	158	W	600	301	108	283	391
May	W	169	W	583	301	108	255	363
June	W	170	W	587	301	30	219	249
July	W	168	W	606	301	35	227	262
August	W	165	W	628	301	35	262	297
September	W	170	W	612	301	33	264	297
October	W	164	W	597	301	30	293	323

W Withheld to avoid disclosing company proprietary data; included in "Total U.S. industry."

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; 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:								
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–September	6,650	270,000	1,500	43,800	2,330	24,700	8,470	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	502	20,400	189	3,930	280	3,990	735	3,820
May	575	22,000	284	6,880	117	1,490	815	4,630
June	715	27,800	207	4,860	144	2,030	918	5,550
July	305	12,200	281	5,430	247	2,890	586	6,140
August	804	28,600	118	3,030	143	1,600	932	7,070
September:								
Australia	62	2,020	--	--	--	--	62	592
Belgium	20	444	93	2,980	--	--	86	348
Brazil	10	327	--	--	3	40	11	201
Canada	7	401	48	612	--	--	42	696
China	226	7,550	44	1,360	3	38	258	1,750
Congo (Kinshasa)	39	1,310	--	--	--	--	39	240
Finland	35	1,620	28	709	77	750	78	739
France	(7)	24	--	--	--	--	(7)	9
Germany	(7)	7	(7)	13	--	--	(7)	7
India	12	293	--	--	40	356	23	200
Japan	15	545	--	--	--	--	15	188
Morocco	20	682	--	--	--	--	20	140
Norway	62	2,150	--	--	--	--	62	889
Russia	20	688	--	--	--	--	20	707
South Africa	17	789	--	--	--	--	17	138
Sweden	--	--	--	--	--	--	--	8
Uganda	18	590	--	--	--	--	18	68
United Kingdom	14	486	10	309	9	89	23	238
Zambia	60	2,060	--	--	--	--	60	741
Other	(7)	26	--	--	--	--	(7)	9
Total	637	22,000	222	5,980	131	1,270	835	7,900
January–September	6,040	230,000	1,770	44,700	1,800	21,300	7,900	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 COUNTRY ¹

(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:						
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–September	82	3,780	663	10,400	148	13,200
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	44	1,520	119	2,040	21	2,410
May	52	1,990	87	1,200	16	1,820
June	68	2,570	43	891	20	1,950
July	50	1,670	53	938	24	2,230
August	77	2,880	55	996	16	2,400
September:						
Austria	--	--	2	30	--	--
Canada	67	2,380	1	13	3	709
China	--	--	--	--	(3)	12
Finland	1	127	--	--	--	--
France	--	--	--	--	1	82
Germany	2	114	--	--	6	762
Ireland	--	--	14	230	--	--
Israel	--	--	--	--	(3)	16
Japan	(3)	5	21	231	(3)	8
Mexico	--	--	1	10	--	--
New Zealand	--	--	(3)	3	--	--
Switzerland	--	--	--	--	(3)	5
Taiwan	--	--	--	--	(3)	8
United Kingdom	24	876	(3)	2	14	926
Total	94	3,500	40	519	25	2,530
January–September	544	20,200	568	9,350	184	20,000

-- 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:								
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–September	1,870	59,700	254	2,250	324	4,940	2,130	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
May	340	9,470	(7)	17	25	300	346	1,560
June	204	8,070	18	55	27	312	223	1,790
July	282	9,380	47	120	65	736	332	2,120
August	194	7,440	(7)	20	33	368	202	2,320
September	246	7,550	6	199	14	160	253	2,570
January–September	2,360	73,600	186	2,160	325	3,600	2,570	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:				
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–September	1,270	71,700	2,300	9,820
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
May	115	6,560	4	141
June	98	5,960	3	119
July	128	7,340	40	163
August	98	6,260	2	4
September	111	6,670	--	--
January–September	1,020	60,800	668	1,530

-- 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.