

Mineral Industry Surveys

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COBALT IN JULY 2010

Preliminary data indicate that U.S. cobalt consumption during January through July 2010 was 4% higher than consumption during the first 7 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 59% higher during January through June 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 June 2010 was 9% 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 July 2010 are listed below.

<u>Type</u>	Price range	Average price
U.S. spot ¹	18.75-21.50	20.18
LME cash mean ²	XX	17.30

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).

 ${\bf TABLE~1} \\ {\bf U.S.~REPORTED~CONSUMPTION~OF~COBALT~MATERIALS}^1$

(Metric tons, contained cobalt)

		Oxide and					
	other chemical						
Period	Metal ²	compounds ³	Scrap	Total			
2009:							
July	252	175	143	570			
August	251	176	145	573			
September	264	177	151	592			
October	254	172	156	583			
November	245	172	156	574			
December	243	168	157	568			
January-July	1,820 ^r	1,210 ^r	1,020	4,040 ^r			
January-December ⁴	3,070	2,070	1,780	6,930			
2010:							
January	270	170	156	597			
February	290	170	148	608			
March	291	171	159	622			
April	284	170	156	610			
May	247	176	160	583			
June	268	178	159	605			
July	250	168	159	577			
January-July ⁴	1,900	1,200	1,100	4,200			

rRevised.

 $\label{eq:table 2} \text{U.S REPORTED CONSUMPTION OF COBALT, BY END USE}^1$

(Metric tons, contained cobalt)

	20	09	20	010
	January-	January-		January-
End use	July	December ²	July	July ³
Steel	291 ^r	499	48	336
Superalloys	1,850	3,180	261	1,970
Magnetic alloys	152 ^r	259	22	149
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	347 ^r	593	49	346
Chemical and ceramic uses ⁶	1,240 ^r	2,130	173	1,240
Miscellaneous and unspecified	158	270	22	158
Total	4,040 ^r	6,930	577	4,200

^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.

²Includes metal powder.

³Data may include other cobalt materials.

⁴Data based on monthly reports.

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.

 $\label{eq:table 3} \text{REPORTED STOCKS OF COBALT MATERIALS}^1$

(Metric tons, contained cobalt)

		U.S. Indust	ry ²					
		Oxide and			U.S.	LME ³ , metal		
		other chemical			Government,	U.S.	Non-U.S.	
Period	Metal ⁴	compounds ⁵	Scrap	Total	metal ⁶	warehouse	warehouse	Total
2009:		•						
July	304	152	108	564	310	XX	XX	XX
August	298	155	103	556	310	XX	XX	XX
September	279	152	91	522	304	XX	XX	XX
October	266	156	84	506	304	XX	XX	XX
November	262	159	68	489	295	XX	XX	XX
December ⁷	255	161	66	482	293	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	306	166	60	532	301		113	113
June	296	161	60	516	301	20	132	152
July	282	159	60	501	301	25	163	188

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 Logistics Agency, DLA Strategic Materials (formerly Defense National Stockpile Center); uncommitted material only

⁷Data based on monthly reports.

 $\label{eq:table 4} \textbf{U.s. IMPORTS FOR CONSUMPTION OF COBALT BY COUNTRY}^1$

	Me	etals ²	Oxides and	l hydroxides	Salts and o	compounds ³	Total cobalt	Cobalt content,
Period and country		Value ⁴		Value ⁴		Value ⁴	content for	year to
of origin	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	the period ⁵	date ^{5, 6}
2009:						-		
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-June	2,790	88,800	658	16,100	925	12,100	3,610	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:		· · · · · · · · · · · · · · · · · · ·						
Argentina								4
Australia	102	4,220					102	365
Belgium	28	1,840	22	806	10	107	47	283
Brazil	20	839					20	97
Canada	14	779	18	350			27	290
China	21	1,190	40	1,180	16	287	57	1,350
Congo (Kinshasa)	10	415		·			10	221
Finland	28	1,720	45	1,550	69	883	81	550
France	3	225		·			3	23
Germany	2	76	1	109			3	11
India	11	433			60	535	28	119
Japan	24	1,220					24	169
Korea, Republic of	(7)	2					(7)	1
Lithuania								1
Morocco	20	756					20	95
Norway	114	4,970					114	516
Romania								(7)
Russia	101	4,240					101	956
South Africa								184
Sweden	(7)	8					(7)	16
Switzerland	1	48					1	2
Taiwan								12
Uganda								133
United Kingdom	4	155	30	905	18	314	31	202
Zambia								136
Total	504	23,100	155	4,900	172	2,130	668	5,740
January-June	4,390	180,000	1,010	29,600	1,990	20,300	5,740	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.

 $^{^7}$ Less than $\frac{1}{2}$ unit.

 ${\it TABLE~5}$ U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS BY COUNTRY 1

	Unwrought	cobalt alloys	Cobalt was	Cobalt waste and scrap		obalt and
Period and country	Value ²			Value ²		Value ²
of origin	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2009:		, , , , , , , , , , , , , , , , , , , ,				
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-June	356	9,250	304	4,300	103	9,900
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:						
Brazil			1	17		
Canada	(3)	3	7	99	1	148
China					2	255
France			2	41	1	84
Germany	- 				3	430
Ireland			28	533		
Italy			2	34		
Japan					2	123
Korea, Republic of			4	33		
Malaysia			6	120		
Mexico			7	42	(3)	2
Singapore			1	10		
Tunisia			4	46		
United Kingdom	(3)	19	22	364	6	422
Total	(3)	22	83	1,340	16	1,460
January-June	47	2,260	483	7,770	99	8,060

⁻⁻ Zero.

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

²Customs value.

³Less than ½ unit.

 $\label{eq:table 6} \text{U.S. EXPORTS OF COBALT MATERIALS}^1$

	Unwrought co	obalt, powders,						Cobalt
	matte, wast	te and scrap ²	Oxides and	d hydroxides	Salts and	compounds ³	Total cobalt	content,
		Value ⁴		Value ⁴		Value ⁴	content for	year to
Period	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	the period ⁵	date ^{5, 6}
2009:								
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-June	1,170	43,600	137	2,890	124	1,070	1,300	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
January-June	1,180	39,000	246	2,020	245	4,090	1,420	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.

 $\label{eq:table 7} \textbf{U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,} \\ \textbf{AND CONCENTRATES}^1$

	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
Period	Quantity	Value ² (thousands)	Quantity	Value ² (thousands)
2009:				
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-June	625	37,700	253	1,090
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
January-June	901	50,200	1,340	5,510

⁻⁻ Zero.

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.