

Mineral Industry Surveys

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COBALT IN AUGUST 2013

U.S. cobalt consumption during January through August 2013 was slightly less than consumption during the same period in 2012. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through August 2013 was 8% less than that imported during the same period in 2012. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through August 2013 was 3% more than that exported during the same period in 2012.

Prices

Prices for cobalt metal, in dollars per pound, in August 2013 are listed below.

Type	Price range	Average price
U.S. spot ¹	12.00–14.00	12.81
LME cash mean ²	11.23–12.88	12.14

¹Source: Platts Metals Daily, 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
2012: ^p				
August	312	187	166	665
September	297	185	191	672
October	331	182	181	694
November	329	174	163	666
December	311	176	181	668
January–August ^r	2,490	1,440	1,440	5,370
January–December	3,760	2,160	2,160	8,070
2013:				
January	311	180	182	673
February	308	179	182	669
March	304	180	182	666
April	304	186	182	672
May	286	183	182	651
June	288	175	182	645
July	295	182 ^r	182	659 ^r
August	287	183	182	652
January–August	2,380	1,450	1,460	5,290

^pPreliminary. ^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.

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

(Metric tons, contained cobalt)

End use	2012 ^p		2013	
	January– August	January– December ^{2,3}	August	January– August
Steel	358	536	45	358
Superalloys	2,530 ^r	3,810	293	2,430
Magnetic alloys	168	252	21	169
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	515 ^r	774	65	516
Chemical and ceramic uses ⁶	1,490 ^r	2,240	191	1,510
Miscellaneous and unspecified	307 ^r	460	38	307
Total	5,370 ^r	8,070	652	5,290

^pPreliminary. ^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 ^{p, 2}			U.S. Government, metal ⁶	LME, ³ metal		Total
	Metal and scrap ⁴	Oxide and other chemical compounds ⁵	Total		U.S.	Non-U.S.	
					warehouse	warehouse	
2012:							
August	541	168	709	301	21	340	361
September	529	168	697	301	31	350	381
October	516	172	687	301	31	367	398
November	533	171	704	301	51	367	418
December	527	168	695	301	51	378	429
2013:							
January	520	180	700	301	48	387	435
February	541	170	711	301	44	386	430
March	565	168	733	301	44	407	451
April	556	171	727	301	46	392	438
May	550	167	718	301	46	369	415
June	558	162	720	301	46	418	464
July	553	164	716	301	46	436	482
August	551	164	715	301	46	497	543

^pPreliminary.

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.

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)		
2012:								
August	840	\$24,000	194	\$4,730	235	\$2,690	1,070	7,810
September	671	18,900	112	2,420	124	1,470	796	8,600
October	774	22,200	208	4,940	78	798	948	9,550
November	622	18,700	144	3,410	144	1,500	770	10,300
December	611	16,700	124	2,750	98	881	732	11,100
January–August	6,070	188,000	1,730	37,600	1,360	16,300	7,810	XX
January–December	8,750	264,000	2,320	51,200	1,810	20,900	11,100	XX
2013:								
January	684	17,300	149	3,260	85	793	816	816
February	758	18,500	141	2,690	163	2,310	917	1,730
March	677	17,400	225	4,490	117	923	873	2,610
April	861	22,500	187	4,060	120	1,310	1,030	3,640
May	581	15,300	191	4,000	124	1,300	759	4,400
June	525	14,100	262	5,910	118	1,350	757	5,160
July	887	24,600	224	5,060	147	1,580	1,100	6,250
August:								
Australia	26	717	--	--	--	--	26	305
Austria	1	61	--	--	--	--	1	9
Belgium	2	89	26	621	--	--	21	325
Brazil	--	--	--	--	6	71	2	272
Canada	27	823	9	217	--	--	33	213
China	158	4,640	45	993	--	--	190	1,370
Congo (Kinshasa)	--	--	16	328	--	--	12	29
Finland	49	1,400	45	1,130	151	1,970	140	637
France	1	61	--	--	37	144	10	31
Germany	(7)	10	--	--	--	--	(7)	8
Hong Kong	--	--	--	--	--	--	--	4
India	--	--	--	--	20	200	5	34
Ireland	--	--	--	--	--	--	--	(7)
Italy	--	--	--	--	--	--	--	2
Japan	104	2,610	--	--	--	--	104	524
Korea, Republic of	(7)	5	--	--	--	--	(7)	46
Madagascar	52	1,570	--	--	--	--	52	429
Morocco	20	580	--	--	--	--	20	121
Netherlands	--	--	--	--	--	--	--	5
Norway	102	3,140	--	--	--	--	102	951
Russia	77	2,170	--	--	--	--	77	655
South Africa	38	1,090	--	--	--	--	38	256
Sweden	--	--	--	--	--	--	--	6
Taiwan	--	--	--	--	10	86	3	20
Uganda	--	--	--	--	--	--	--	30
United Arab Emirates	--	--	5	34	--	--	3	3
United Kingdom	(7)	3	67	1,530	10	202	52	475
Zambia	70	1,820	--	--	--	--	70	460
Total	729	20,800	212	4,860	234	2,680	963	7,220
January–August	5,700	151,000	1,590	34,300	1,110	12,300	7,220	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	Quantity	Value ²	Quantity	Value ²
		(thousands)		(thousands)		(thousands)
2012:						
August	67	\$1,990	59	\$884	26	\$2,570
September	55	1,780	55	690	24	2,480
October	56	1,990	54	777	21	2,410
November	89	2,620	88	1,470	20	1,750
December	76	2,140	57	751	13	1,360
January–August	580	19,100	566	9,140	201	20,400
January–December	856	27,600	820	12,800	279	28,400
2013:						
January	87	2,650	43	565	15	1,560
February	80	2,300	58	709	15	1,910
March	50	1,470	45	635	17	1,960
April	89	2,890	52	1,230	26	2,470
May	87	3,260	65	985	15	1,680
June	59	1,830	63	840	21	2,000
July	37	1,310	50	637	26	2,580
August:						
Austria	--	--	--	--	(3)	22
Belgium	8	265	9	468	--	--
Canada	98	2,780	--	--	2	616
China	--	--	--	--	1	174
Finland	(3)	8	--	--	--	--
France	--	--	8	168	(3)	28
Germany	3	240	--	--	4	804
India	--	--	--	--	(3)	51
Ireland	--	--	19	180	--	--
Japan	--	--	--	--	(3)	24
Korea, Republic of	(3)	3	2	19	--	--
Mexico	--	--	(3)	8	--	--
Switzerland	--	--	2	33	--	--
Taiwan	--	--	--	--	(3)	13
United Arab Emirates	--	--	8	119	--	--
United Kingdom	20	706	10	178	8	587
Total	128	4,000	58	1,170	16	2,320
January–August	617	19,700	434	6,770	150	16,500

-- 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)		
2012:								
August	345	\$10,000	80	\$490	1	\$10	403	2,460
September	392	10,600	36	229	19	158	423	2,880
October	279	9,010	(7)	9	40	320	289	3,170
November	265	7,410	(7)	12	58	526	279	3,450
December	287	8,090	33	397	20	154	316	3,760
January–August	2,200	71,300	328	1,890	90	2,430	2,460	XX
January–December	3,420	106,000	397	2,540	226	3,580	3,760	XX
2013:								
January	276	8,200	32	108	--	--	299	299
February	252	6,850	6	81	20	164	261	560
March	319	9,270	48	875	23	189	360	919
April	281	8,050	3	88	19	162	288	1,210
May	343	9,570	3	92	24	225	351	1,560
June	264	7,090	52	713	2	34	302	1,860
July	265	7,110	20	520	1	13	279	2,140
August	346	7,770	53	118	39	359	393	2,530
January–August	2,350	63,900	217	2,590	127	1,150	2,530	XX

XX Not applicable. -- Zero.

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)
2012:				
August	152	\$8,910	1	\$39
September	117	7,570	--	--
October	198	10,900	1	36
November	180	9,400	1	35
December	231	11,300	--	--
January–August	1,100	67,100	33	357
January–December	1,820	106,000	35	428
2013:				
January	152	8,390	1	30
February	206	9,230	--	--
March	236	11,900	63	95
April	155	8,080	--	--
May	229	10,900	85	121
June	197	10,100	(3)	4
July	174	9,160	--	--
August	260	11,900	--	--
January–August	1,610	79,700	149	250

-- 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.

Source: U.S. Census Bureau.