

Mineral Industry Surveys

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COBALT IN SEPTEMBER 2014

U.S. cobalt consumption during January through September 2014 was slightly higher than consumption during the same period in 2013. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through September 2014 was 11% more than that imported during the same period in 2013. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through September 2014 was 25% more than that exported during the same period in 2013.

Prices

Prices for cobalt metal, in dollars per pound, in September 2014 are listed below.

Type	Price range	Average price
U.S. spot ¹	14.80–16.00	15.41
LME cash mean ²	14.51–14.97	14.71

¹Source: Platts Metals Daily, minimum 99.8% cobalt cathode.

²London Metal Exchange, mean of the cash buyer and cash seller price, minimum 99.3% cobalt briquettes, cathode, ingot, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

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TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2013: ^P				
September	297	168 ^r	180	645 ^r
October	270	179 ^r	180	629 ^r
November	289	170 ^r	180	638 ^r
December	286	164 ^r	180	629 ^r
January–September ^r	2,610	1,540	1,620	5,770
January–December ⁴	3,450	2,060 ^r	2,160	7,670 ^r
2014:				
January	302	170 ^r	180	652 ^r
February	298	170 ^r	180	648 ^r
March	319	170 ^r	180	668 ^r
April	284	169 ^r	180	633 ^r
May	294	168 ^r	180	642 ^r
June	293	173 ^r	180	646 ^r
July	295	177 ^r	180	652 ^r
August	296 ^r	173 ^r	180	648 ^r
September	296	178	180	654
January–September	2,680	1,550	1,620	5,840

^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.

⁴Based on monthly reports.

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

(Metric tons, contained cobalt)

End use	2013 ^P		2014	
	January–September	January–December ^{2,3}	September	January–September
Steel	402	536	45	402
Superalloys	2,670 ^r	3,540	302	2,730
Magnetic alloys	222 ^r	296	25	222
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	529 ^r	705	60	540
Chemical and ceramic uses ⁶	1,610 ^r	2,150 ^r	186	1,620
Miscellaneous and unspecified	332 ^r	443	37	332
Total	5,770 ^r	7,670 ^r	654	5,840

^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. warehouse	Non-U.S. warehouse	
2013:							
September	533	203	736	301	46	488	534
October	525	209	735	301	46	487	533
November	516	226	741	301	41	481	522
December ⁷	561	228	789	301	41	519	560
2014:							
January	638	161	798	301	41	517	558
February	651	162	813	301	36	548	584
March	635	160	795	301	36	530	566
April	634	160	794	301	34	514	548
May	629	161	790	301	22	517	539
June	617	160	777	301	20	527	547
July	616	160	776	301 ^e	19	523	542
August	604 ^r	160	764	301 ^e	19	497	516
September	576	160	736	301 ^e	19	484	503

^eEstimated. ^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.

⁷U.S. data industry 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)		
2013:								
September	680	\$19,800	197	\$4,430	91	\$1,380	858	8,070
October	647	17,700	283	6,630	103	1,230	887	8,960
November	476	13,700	202	4,640	63	773	645	9,610
December	729	19,900	148	3,600	27	380	845	10,500
January–September	6,380	170,000	1,790	38,800	1,200	13,600	8,070	XX
January–December	8,230	222,000	2,420	53,600	1,390	16,000	10,500	XX
2014:								
January	708	19,000	183	4,130	83	730	864	864
February	465	12,500	192	4,150	124	1,410	648	1,510
March	1,250	34,800	259	6,010	224	2,280	1,510	3,020
April	857	26,400	258	6,330	298	3,020	1,140	4,160
May	894	27,100	255	6,280	220	1,920	1,150	5,300
June	698	21,100	251	5,650	102	1,020	911	6,210
July	577	17,100	179	4,070	94	1,050	735	6,950
August	858	25,900	191	4,900	133	1,150	1,030	7,980
September:								
Australia	128	3,780	--	--	--	--	128	744
Austria	(7)	3	--	--	--	--	(7)	3
Belgium	1	27	42	1,090	10	149	33	375
Brazil	20	593	--	--	12	147	24	108
Canada	9	465	--	--	--	--	9	96
China	67	1,920	60	1,350	48	756	130	1,470
Congo (Kinshasa)	--	--	18	290	--	--	13	116
Finland	44	1,610	26	675	116	1,660	108	831
France	3	143	--	--	--	--	3	23
Germany	1	33	2	205	1	9	2	26
India	--	--	--	--	--	--	--	32
Ireland	--	--	--	--	--	--	--	(7)
Italy	--	--	--	--	--	--	--	5
Japan	208	6,050	--	--	--	--	208	907
Korea, Republic of	--	--	--	--	--	--	--	1
Madagascar	21	660	--	--	--	--	21	399
Mexico	--	--	--	--	--	--	--	11
Morocco	20	633	--	--	--	--	20	87
Netherlands	--	--	--	--	--	--	--	1
Norway	117	4,120	--	--	--	--	117	1,510
Peru	--	--	--	--	--	--	--	1
Philippines	--	--	--	--	--	--	--	7
Russia	101	3,180	--	--	--	--	101	724
South Africa	(7)	2	--	--	--	--	(7)	292
Sweden	1	49	--	--	--	--	1	9
Taiwan	(7)	7	--	--	--	--	(7)	36
United Kingdom	1	29	85	2,040	9	155	65	649
Zambia	25	717	--	--	--	--	25	521
Total	767	24,000	233	5,650	197	2,880	1,010	8,990
January–September	7,070	208,000	2,000	47,200	1,480	15,500	8,990	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)
2013:						
September	112	\$3,270	64	\$1,040	43	\$3,020
October	87	2,900	63	821	20	2,690
November	93	2,790	33	335	20	2,190
December	59	1,630	104	1,940	21	2,420
January–September	729	23,000	497	7,810	193	19,500
January–December	967	30,300	698	10,900	254	26,800
2014:						
January	86	2,640	69	1,040	20	1,990
February	63	1,870	54	723	24	2,310
March	54	1,730	151	2,320	19	2,040
April	73	2,640	95	1,340	15	2,140
May	88	2,710	123	2,290	12	1,940
June	51	1,630	61	734	17	1,540
July	55	1,750	111	1,910	13	1,820
August	85	3,420	82	1,210	50	2,160
September:						
Australia	--	--	--	--	(3)	3
Austria	--	--	--	--	(3)	20
Belgium	19	660	7	339	--	--
Canada	29	950	19	187	3	672
China	--	--	--	--	1	197
France	--	--	10	210	1	88
Germany	--	--	--	--	1	279
Hong Kong	--	--	(3)	5	--	--
Ireland	--	--	16	160	--	--
Japan	--	--	1	9	1	39
Korea, Republic of	--	--	6	55	--	--
Malaysia	--	--	(3)	6	--	--
Netherlands	--	--	5	87	--	--
Taiwan	--	--	3	70	(3)	8
United Kingdom	--	--	25	313	2	134
Total	48	1,610	92	1,440	9	1,440
January–September	603	20,000	838	13,000	179	17,400

-- 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)		
2013:								
September	250	\$7,060	35	\$83	39	\$332	285	2,820
October	283	7,710	16	324	38	334	303	3,120
November	314	9,880	110	649	19	173	399	3,520
December	305	8,440	31	600	20	169	332	3,850
January–September	2,600	71,000	252	2,680	166	1,480	2,820	XX
January–December	3,500	97,000	409	4,250	243	2,150	3,850	XX
2014:								
January	245	7,200	(7)	13	58	486	260	260
February	359	10,500	15	251	21	105	375	635
March	345	9,570	72	1,070	43	349	407	1,040
April	399	10,800	62	851	20	180	448	1,490
May	505	9,600	27	538	--	--	524	2,010
June	379	9,360	51	529	1	9	415	2,430
July	309	7,930	4	149	10	1,970	314	2,740
August	310	8,590	207	1,390	(7)	34	459	3,200
September	305	8,160	35	137	--	--	330	3,530
January–September	3,160	81,700	473	4,930	153	3,130	3,530	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)
2013:				
September	119	\$7,300	--	--
October	158	8,790	157	\$355
November	154	9,080	--	--
December	153	8,950	150	330
January–September	1,730	87,000	149	250
January–December	2,190	114,000	456	935
2014:				
January	109	6,630	(3)	26
February	152	9,370	1	5
March	184	9,860	(3)	4
April	150	9,020	281	365
May	126	8,060	(3)	4
June	160	9,190	165	688
July	170	9,740	6	61
August	164	9,700	--	--
September	143	8,540	103	136
January–September	1,360	80,100	556	1,290

-- 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.