

Mineral Industry Surveys

For information, contact:

Kim B. Shedd, Cobalt Commodity Specialist
National Minerals Information Center
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4974, Fax: (703) 648-7757
Email: kshed@usgs.gov

Annie Hwang (Data)
Telephone: (703) 648-7952
Fax: (703) 648-7975
Email: ahwang@usgs.gov

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

COBALT IN NOVEMBER 2016

U.S. cobalt consumption during January through November 2016 was slightly more than consumption during the same period in 2015. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in January through November 2016 was 6% more than revised imports during the same period in 2015. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in January through November 2016 was 8% more than revised exports during the same period in 2015.

Prices

In November, the monthly average U.S. spot cobalt price increased for the fifth consecutive month. The monthly average LME cash mean price increased for the seventh consecutive month. The monthly average spot and LME prices were each

26% higher than those of January. The following listed prices are for cobalt metal in November, in dollars per pound.

Type	Price range	Average price
U.S. spot ¹	13.00–14.00	13.61
LME cash mean ²	12.81–13.61	13.29

¹Source: Platts Metals Week, 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
REPORTED CONSUMPTION AND STOCKS OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Consumption, U.S. industry ^{p, 2}	Stocks, end of period				
		U.S. industry ^{p, 2}	U.S. Government ^{3, 4}	LME ^{3, 5}		Total
				U.S. warehouse	Non-U.S. warehouse	
2015:						
November	712	1,030	301	125	441	566
December	701	1,050	301	165	465	630
January–November	7,750 ^r	1,030 ^r	301	125	441 ^r	566 ^r
January–December ⁶	8,450	1,050	301	165	465	630
Year ⁷	8,780	1,080	301	165	465	630
2016:						
January	720	1,060	301	169	450	619
February	713	1,050	301	169	445	614
March	705	1,070	301	193	458	651
April	718	1,050	301	197	457	654
May	734	1,050	301	186	451	637
June	712	1,030	301	190	455	645
July	708	1,020	301	190	454	644
August	693	1,040	301	190	440	630
September	698	1,030	301	190	435	625
October	734	1,040	301	195	425	620
November	711	1,040	301	195	429	624
January–November	7,850	1,040	301	195	429	624

^pPreliminary. ^rRevised.

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

²Data for cobalt metal, metal powder, oxide and other chemical compounds, and scrap reported by U.S. cobalt processors and consumers. Includes estimates.

³Cobalt metal.

⁴Data from Defense Logistics Agency Strategic Materials.

⁵London Metal Exchange.

⁶U.S. industry data based on monthly reports.

⁷U.S. industry data include annual reports.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY¹

Period and country of origin	Metals ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the period ⁵ (metric tons)	Cobalt content, year to date ^{5, 6} (metric tons)
	Gross weight (metric tons)	Value ⁴ (thousands)	Gross weight (metric tons)	Value ⁴ (thousands)	Gross weight (metric tons)	Value ⁴ (thousands)		
2015:								
November	650	\$17,500	110	\$2,500	259	\$1,400	799	10,600
December	714	17,900	112	2,410	142	1,550	841	11,400
January–November	8,580 ^r	249,000	1,640	37,800	2,490	24,700	10,600 ^r	XX
January–December	9,290	267,000	1,750	40,200	2,630	26,300	11,400	XX
2016:								
January	612	14,200	100	1,980	104	1,340	720	720
February	1,050	23,100	171	3,010	106	1,160	1,210	1,930
March	720	17,500	173	3,260	170	1,860	903	2,830
April	701	18,400	190	3,680	194	1,790	899	3,730
May	643	15,500	145	2,790	347	3,390	857	4,590
June	920	22,100	147	2,750	221	2,270	1,100	5,690
July	767	18,900	106	2,310	241	1,990	918	6,600
August	1,240	30,100	243	4,690	225	2,230	1,480	8,090
September	724	17,800	223	4,650	95	814	912	9,000
October	787	20,600	156	3,300	167	1,630	956	9,950
November:								
Australia	104	2,650	--	--	--	--	104	447
Austria	--	--	--	--	--	--	--	1
Belgium	--	--	32	785	--	--	23	396
Brazil	--	--	--	--	4	63	1	37
Canada	127	3,440	(7)	14	--	--	127	1,240
China	3	121	1	22	20	133	9	708
Croatia	--	--	--	--	--	--	--	(7)
Finland	12	281	24	451	--	--	30	875
France	2	115	--	--	--	--	2	31
Germany	5	294	--	--	--	--	5	76
India	--	--	--	--	20	113	5	21
Ireland	--	--	--	--	--	--	--	1
Italy	--	--	--	--	--	--	--	(7)
Japan	204	5,020	--	--	--	--	204	1,620
Korea, Republic of	(7)	6	--	--	--	--	(7)	1
Kuwait	--	--	--	--	--	--	--	5
Macao	--	--	--	--	--	--	--	40
Madagascar	147	3,710	--	--	--	--	147	984
Morocco	20	534	--	--	--	--	20	337
Netherlands	--	--	--	--	--	--	--	10
New Caledonia	--	--	--	--	--	--	--	18
Norway	228	6,090	--	--	--	--	228	2,100
Peru	--	--	--	--	--	--	--	5
Philippines	--	--	--	--	--	--	--	3
Russia	47	1,090	--	--	--	--	47	678
Singapore	--	--	--	--	--	--	--	29
Slovakia	--	--	--	--	43	200	12	30
South Africa	20	412	--	--	--	--	20	197
Taiwan	--	--	--	--	4	31	1	3
United Kingdom	(7)	20	42	942	12	216	35	477
Zambia	200	4,940	--	--	--	--	200	805
Total	1,120	28,700	99	2,210	103	756	1,220	11,200
January–November	9,280	227,000	1,750	34,600	1,980	19,200	11,200	XX

¹Revised. XX Not applicable. -- Zero.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

⁴Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

⁵Customs value.

⁶Estimated from gross weights.

⁷May include revisions to previously published data.

⁸Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY¹

Period and country of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
2015:						
November	95	\$2,980	58	\$1,020	20	\$2,040
December	236	5,990	59	940	24	1,450
January–November	1,010 ^r	33,700 ^r	753 ^r	11,100	187	20,400 ^r
January–December	1,250	39,700	812	12,100	211	21,800
2016:						
January	82	2,600	43	698	10	1,590
February	109	3,460	58	793	13	1,550
March	91	2,750	82	1,150	11	1,440
April	67	2,080	43	619	9	1,540
May	75	2,860	64	896	7	1,310
June	78	2,090	77	1,090	15	2,150
July	70	2,360	74	1,230	6	1,360
August	60	1,770	115	1,600	15	1,700
September	24	1,040	114	1,410	21	2,220
October	51	2,010	155	1,550	27	2,760
November:						
Australia	--	--	--	--	4	131
Austria	(3)	3	--	--	3	161
Belgium	21	596	1	22	(3)	11
Canada	18	461	13	126	2	753
China	(3)	11	6	83	1	247
France	(3)	3	7	102	1	460
Germany	1	46	--	--	1	124
Ireland	--	--	22	317	(3)	16
Italy	1	20	--	--	--	--
Japan	--	--	6	66	(3)	74
Korea	--	--	3	32	--	--
Mexico	--	--	(3)	6	(3)	35
Norway	2	84	--	--	--	--
Singapore	--	--	--	--	(3)	2
Switzerland	--	--	--	--	(3)	17
Taiwan	--	--	3	64	--	--
Tunisia	--	--	6	71	--	--
United Kingdom	25	1,230	28	341	12	358
Total	67	2,450	94	1,230	25	2,390
January–November	777	25,500	918	12,300	159	20,000

^rRevised. -- 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 4
U.S. EXPORTS OF COBALT MATERIALS¹

Period	Unwrought cobalt, powders, matte, waste and scrap ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the period ⁵ (metric tons)	Cobalt content, year to date ^{5, 6} (metric tons)
	Gross weight (metric tons)	Value ⁴ (thousands)	Gross weight (metric tons)	Value ⁴ (thousands)	Gross weight (metric tons)	Value ⁴ (thousands)		
November	315	\$5,830	1	\$57	4	\$16	317	3,500
December	322	7,020	--	--	19	150	327	3,830
January–November	3,320 ^r	80,000 ^r	192	2,690 ^r	161	1,250	3,500 ^r	XX
January–December	3,640	87,000	192	2,690	180	1,400	3,830	XX
2016:								
January	305	5,930	7	118	10	43	312	312
February	336	6,600	4	45	33	107	347	659
March	289	6,850	72	236	19	132	345	1,000
April	399	7,530	2	51	29	130	408	1,410
May	317	7,170	4	39	75	371	337	1,750
June	303	6,100	10	214	68	356	327	2,080
July	311	5,570	--	--	--	--	311	2,390
August	458	8,030	21	256	39	202	483	2,870
September	275	5,480	6	130	8	66	281	3,150
October	273	5,240	4	143	(7)	6	275	3,430
November	360	6,160	1	52	24	102	367	3,790
January–November	3,620	70,700	132	1,280	305	1,520	3,790	XX

^rRevised. 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.

TABLE 5
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,
AND CONCENTRATES¹

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
2015:				
November	122	\$7,460	1	\$11
December	143	7,730	--	--
January–November	1,740	101,000 ^r	6	35
January–December	1,890	108,000	6	35
2016:				
January	117	6,880	--	--
February	128	7,360	--	--
March	163	9,110	--	--
April	140	8,190	--	--
May	109	8,370	--	--
June	137	9,970	--	--
July	106	7,830	(3)	4
August	80	6,520	2	59
September	93	7,780	(3)	3
October	120	8,000	--	--
November	90	7,910	--	--
January–November	1,280	87,900	2	65

^rRevised. -- 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.