

# Mineral Industry Surveys

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## COBALT IN MAY 2017

U.S. cobalt consumption and stocks in May 2017 will be published in a subsequent issue. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in January through May 2017 was 14% more than that imported during the same period in 2016 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in January through May 2017 was 28% more than that exported during the same period in 2016 (table 4).

## Prices

In May, the monthly average U.S. spot cobalt price was 3% lower than that in April 2017, but was 138% higher than that in January 2016. The monthly average London Metal Exchange Ltd. (LME) cash mean price was slightly lower than that in April 2017, but was 136% higher than that in January 2016. The

following listed prices are for cobalt metal in May, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	24.50–27.00	25.69
LME cash mean <sup>2</sup>	23.47–25.51	24.81

<sup>1</sup>Source: Platts Metals Week, minimum 99.8% cobalt cathode.

<sup>2</sup>London 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 MATERIALS<sup>1</sup>

(Metric tons, contained cobalt)

Period	Stocks, end of period					
	Consumption, U.S. industry <sup>p, 2</sup>	U.S. industry <sup>p, 2</sup>	U.S. Government <sup>3, 4</sup>	LME <sup>3, 5</sup>		Total
				U.S. warehouse	Non-U.S. warehouse	
2016:						
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
December	724	1,020	301	195	496	691
January–May	3,590 <sup>r</sup>	1,050 <sup>r</sup>	301	186	451	637
January–December <sup>6</sup>	8,570	1,020	301	195	496	691
2017:						
January	NA	NA	301	195	458	653
February	NA	NA	301	185	533	718
March	NA	NA	301	193	533	726
April	NA	NA	301	188	601	789
May	NA	NA	301	188	557	745
January–May	NA	NA	301	188	557	745

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

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

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

<sup>3</sup>Cobalt metal.

<sup>4</sup>Data from Defense Logistics Agency Strategic Materials.

<sup>5</sup>London Metal Exchange.

<sup>6</sup>U.S. industry data based on monthly reports.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY<sup>1</sup>

Period and country of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup> (metric tons)	Cobalt content, year to date <sup>5, 6</sup> (metric tons)
	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)		
2016:								
May	643	\$15,500	145	\$2,790	347	\$3,390	857	4,590
June	939	22,200	147	2,750	221	2,270	1,120	5,700
July	767	19,000	106	2,310	241	1,990	918	6,620
August	1,240	30,200	243	4,690	225	2,230	1,480	8,100
September	724	18,100	223	4,650	85	786	910	9,010
October	787	20,600	156	3,300	177	1,630	958	9,970
November	1,120	28,800	99	2,210	103	756	1,220	11,200
December	1,450	40,000	209	4,690	149	1,340	1,650	12,800
January–May	3,730	88,200 <sup>r</sup>	779	14,700	920 <sup>r</sup>	9,530 <sup>r</sup>	4,590	XX
January–December	10,800	267,000	1,960	39,300	2,120	20,500	12,800	XX
2017:								
January	720	21,700	135	3,300	183	2,130	880	880
February	1,130	37,600	180	4,260	237	2,720	1,350	2,230
March	793	25,500	207	5,570	234	2,630	1,020	3,250
April	980	45,500	222	7,050	211	2,040	1,200	4,440
May:								
Australia	26	1,330	--	--	--	--	26	186
Belgium	2	189	44	1,750	1	5	34	178
Bolivia	--	--	--	--	--	--	--	199
Brazil	22	1,120	--	--	38	218	33	53
Canada	132	5,620	--	--	--	--	132	702
China	111	5,580	93	2,960	13	121	182	609
Finland	41	2,330	26	928	149	1,830	106	608
France	(7)	19	--	--	--	--	(7)	22
Germany	5	217	--	--	--	--	5	22
Hong Kong	--	--	--	--	--	--	--	42
India	--	--	--	--	--	--	--	5
Japan	6	221	--	--	--	--	6	402
Madagascar	84	4,580	--	--	--	--	84	483
Morocco	10	530	--	--	--	--	10	98
Norway	33	1,380	--	--	--	--	33	846
Russia	38	2,120	--	--	--	--	38	268
South Africa	24	384	2	33	--	--	26	85
Switzerland	--	--	--	--	--	--	--	36
United Kingdom	(7)	18	62	2,220	12	135	49	232
Zambia	--	--	--	--	--	--	--	125
Other	(7)	3	--	--	2	55	1	6
Total	535	25,600	227	7,890	215	2,370	764	5,210
January–May	4,160	156,000	972	28,100	1,080	11,900	5,210	XX

<sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

<sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>4</sup>Customs value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to previously published data.

<sup>7</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY<sup>1</sup>

Period and country of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)
2016:						
May	75	\$2,860	64	\$896	7	\$1,310
June	78	2,090	77	1,090	14	2,070
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	67	2,450	94	1,230	25	2,390
December	43	1,540	108	1,540	8	1,950
January–May	425	13,700	289	4,160	50	7,460 <sup>r</sup>
January–December	820	27,000	1,030	13,800	167	21,900
2017:						
January	68	3,080	100	1,620	11	1,920
February	33	1,550	111	1,470	12	2,050
March	44	1,600	119	1,780	29	3,240
April	45	1,960	134	1,830	26	3,080
May:						
Australia	--	--	--	--	4	70
Austria	(3)	3	--	--	1	49
Belgium	1	27	--	--	--	--
Canada	--	--	11	145	2	609
China	--	--	5	81	2	250
France	--	--	1	9	1	568
Germany	--	--	7	153	1	229
Hungary	--	--	--	--	(3)	3
India	--	--	8	176	--	--
Ireland	--	--	14	221	--	--
Italy	--	--	--	--	(3)	13
Japan	--	--	14	204	(3)	13
Korea, Republic of	--	--	6	99	--	--
Mexico	--	--	5	67	(3)	9
Netherlands	--	--	(3)	8	--	--
Singapore	--	--	2	31	--	--
Spain	--	--	2	29	--	--
Sweden	(3)	7	--	--	--	--
Switzerland	--	--	(3)	3	(3)	22
Taiwan	--	--	3	64	--	--
Tunisia	--	--	8	76	--	--
United Kingdom	25	1,110	71	1,050	7	370
Total	26	1,150	158	2,420	19	2,210
January–May	216	9,350	622	9,110	96	12,500

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Customs value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF COBALT MATERIALS<sup>1</sup>

Period	Unwrought cobalt, powders, matte, waste and scrap <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup> (metric tons)	Cobalt content, year to date <sup>5, 6</sup> (metric tons)
	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)		
2016:								
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
December	361	7,430	2	100	9	86	365	4,160
January–May	1,650	34,100	89	489	166	784	1,750	XX
January–December	3,990	78,100	134	1,380	314	1,600	4,160	XX
2017:								
January	356	6,380	--	--	31	213	364	364
February	376	6,590	--	--	18	212	381	745
March	471	10,900	97	434	--	--	541	1,290
April	312	9,180	10	269	(7)	7	319	1,600
May	589	12,000	40	305	36	532	626	2,230
January–May	2,100	45,000	147	1,010	85	964	2,230	XX

XX Not applicable. -- Zero.

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

<sup>2</sup>May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

<sup>3</sup>Cobalt acetates and cobalt chlorides.

<sup>4</sup>Free alongside ship (f.a.s.) value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to previously published data.

<sup>7</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,  
AND CONCENTRATES<sup>1</sup>

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)
2016:				
May	109	\$8,380	--	--
June	137	9,970	--	--
July	106	7,820	(3)	\$4
August	80	6,510	2	59
September	93	7,790	(3)	3
October	120	8,000	--	--
November	90	7,910	--	--
December	103	8,490	--	--
January–May	659 <sup>r</sup>	40,000 <sup>r</sup>	--	--
January–December	1,390	96,500	2	65
2017:				
January	153	8,520	--	--
February	84	6,430	2	26
March	104	8,090	4	20
April	93	8,180	105	415
May	70	7,590	132	533
January–May	504	38,800	242	993

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Free alongside ship (f.a.s.) value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.