

# Mineral Industry Surveys

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## COBALT IN AUGUST 2017

U.S. cobalt consumption and stocks in August 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 August 2017 was essentially unchanged from 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 August 2017 was 21% more than that exported during the same period in 2016 (table 4).

## Prices

In August, the monthly average U.S. spot cobalt price was slightly higher than that in July 2017 and 182% higher than that in January 2016. The monthly average London Metal Exchange Ltd. (LME) cash mean price was slightly lower than that in July 2017, but was 150% higher than that in January 2016. The

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

Type	Price range	Average price
U.S. spot <sup>1</sup>	29.50–31.25	30.45
LME cash mean <sup>2</sup>	22.79–27.78	26.29

<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	Consumption, U.S. industry <sup>p, 2</sup>	Stocks, end of period				Total
		U.S. industry <sup>p, 2</sup>	U.S. Government <sup>3, 4</sup>	LME <sup>3, 5</sup>		
				U.S. warehouse	Non-U.S. warehouse	
2016:						
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–August	5,700	1,040	301	190	440	630
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
June	NA	NA	301	193	548	741
July	NA	NA	301	191	503	694
August	NA	NA	302	191	553	744
January–August	NA	NA	302	191	553	744

<sup>p</sup>Preliminary. 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 OR LOCALITY<sup>1</sup>

Period and country or locality 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:								
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–August	6,670 <sup>r</sup>	160,000	1,280	24,500	1,610	16,000	8,100 <sup>r</sup>	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	535	25,600	227	7,890	215	2,370	764	5,210
June	977	49,800	106	3,930	316	3,750	1,160	6,360
July	756	38,900	141	5,540	175	2,770	917	7,280
August:								
Australia	--	--	--	--	--	--	--	186
Belgium	--	--	68	3,000	--	--	49	271
Bolivia	--	--	--	--	--	--	--	199
Brazil	--	--	--	--	56	363	17	78
Canada	108	5,110	--	--	10	8	111	1,090
China	53	3,050	37	1,320	113	1,770	114	990
Finland	61	3,500	46	1,960	66	942	110	901
France	4	223	--	--	--	--	4	27
Germany	2	150	--	--	--	--	2	29
Hong Kong	--	--	--	--	--	--	--	42
India	--	--	--	--	--	--	--	5
Japan	163	9,040	--	--	1	10	163	857
Korea, Republic of	--	--	10	283	--	--	7	7
Madagascar	84	4,940	--	--	--	--	84	672
Morocco	20	1,200	--	--	--	--	20	128
Norway	--	--	--	--	--	--	--	1,460
Russia	42	2,410	--	--	--	--	42	351
South Africa	14	870	--	--	1	38	15	152
Switzerland	--	--	--	--	--	--	--	36
United Kingdom	19	787	41	1,610	47	494	62	364
Zambia	--	--	--	--	--	--	--	223
Other	--	--	--	--	2	30	1	7
Total	569	31,300	202	8,180	297	3,660	800	8,080
January–August	6,460	276,000	1,420	45,700	1,870	22,100	8,080	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 OR LOCALITY<sup>1</sup>

Period and country or locality 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:						
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–August	634	20,000	555	8,090	85 <sup>†</sup>	12,600
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	26	1,150	158	2,420	19	2,210
June	31	1,300	139	1,980	13	2,570
July	12	530	153	2,820	6	1,570
August:						
Belgium	1	47	--	--	1	51
Canada	--	--	4	74	5	976
China	--	--	--	--	1	235
France	--	--	11	192	3	591
Germany	1	60	23	228	1	159
India	--	--	--	--	(3)	5
Ireland	--	--	33	523	--	--
Japan	--	--	10	125	(3)	54
Mexico	--	--	(3)	2	(3)	18
Norway	6	188	--	--	--	--
Singapore	--	--	3	27	--	--
Switzerland	--	--	--	--	(3)	25
Taiwan	--	--	3	64	(3)	3
Tunisia	--	--	4	37	--	--
United Kingdom	4	189	10	307	12	374
Vietnam	--	--	--	--	(3)	15
Total	12	484	102	1,580	24	2,510
January–August	271	11,700	1,020	15,500	138	19,100

<sup>†</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:								
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–August	2,720	53,800	121	959	273	1,340	2,870	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
June	398	7,520	5	139	19	281	405	2,640
July	486	9,650	9	313	4	66	494	3,130
August	347	8,490	4	138	19	277	354	3,480
January–August	3,340	70,700	165	1,600	127	1,590	3,480	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:				
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–August	982 <sup>†</sup>	64,300 <sup>†</sup>	2	62
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
June	104	8,610	--	--
July	79	7,860	1	5
August	115	9,010	6	30
January–August	802	64,300	249	1,030

<sup>†</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.