

# Mineral Industry Surveys

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## COBALT IN OCTOBER 2018

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in January through October 2018 was 6% more than that imported during the same period in 2017 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in January through October 2018 was 48% more than that exported during the same period in 2017 (table 4).

### Prices

In October, the monthly average U.S. spot cobalt price increased 14% from that in September 2018 and was 26% higher than that in October 2017. The monthly average LME cash mean price decreased 5% from that in September 2018 and was slightly lower than that in October 2017. The following listed prices are for cobalt metal in October, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	36.00–38.00	37.13
LME cash mean <sup>2</sup>	24.83–28.24	26.70

<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		
2017:							
October	724	985	302	167	583	750	
November	701	977	302	163	562	725	
December	705	996	302	160	420	580	
January–October	7,310 <sup>r</sup>	985	302	167	583	750	
January–December <sup>6</sup>	8,710	996	302	160	420	580	
2018:							
January	717	1,000	302	159	385	544	
February	697	1,010	302	159	360	519	
March	746	962	302	141	397	538	
April	742	934	302	141	446	587	
May	NA	NA	302	139	471	610	
June	NA	NA	302	135	501	636	
July	NA	NA	302	131	520	651	
August	NA	NA	302	131	559	690	
September	NA	NA	302	131	592	723	
October	NA	NA	302	130	611	741	
January–October	NA	NA	302	130	611	741	

<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 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)		
2017:								
October	875	\$51,900	104	\$4,670	187	\$2,730	1,000	9,850
November	1,090	63,800	250	10,900	187	3,450	1,340	11,200
December	507	28,300	201	9,330	218	3,430	723	11,900
January–October	7,930 <sup>r</sup>	373,000	1,660	56,400	2,290	27,300	9,850 <sup>r</sup>	XX
January–December	9,530	465,000	2,120	76,600	2,690	34,200	11,900	XX
2018:								
January	1,150	70,900	135	6,220	345	4,790	1,350	1,350
February	902	62,500	176	9,700	271	2,970	1,110	2,470
March	782	47,500	304	17,000	933	6,980	1,280	3,750
April	922	71,600	149	8,700	454	4,900	1,180	4,930
May	731	51,300	172	9,950	225	3,070	933	5,860
June	767	54,700	122	7,620	832	5,400	1,100	6,960
July	577	43,000	133	7,820	204	1,170	731	7,690
August	674	48,400	56	2,880	35	484	724	8,410
September	604	38,500	122	6,680	551	3,850	851	9,260
October:								
Australia	--	--	--	--	--	--	--	578
Belgium	1	121	52	2,820	--	--	39	407
Brazil	--	--	--	--	--	--	--	150
Canada	146	8,820	1	39	--	--	147	1,370
China	6	466	13	473	86	904	39	1,190
Finland	103	6,980	25	993	211	2,280	183	1,560
France	(7)	15	--	--	--	--	(7)	14
Germany	1	24	--	--	--	--	1	34
Hong Kong	--	--	--	--	--	--	--	46
India	--	--	--	--	20	303	5	12
Italy	--	--	--	--	--	--	--	10
Japan	161	11,500	--	--	--	--	161	1,640
Korea, Republic of	(7)	8	10	347	--	--	7	9
Madagascar	126	9,230	--	--	--	--	126	693
Morocco	20	1,470	--	--	--	--	20	200
Netherlands	--	--	--	--	--	--	--	4
Norway	228	16,000	--	--	--	--	228	1,420
Peru	--	--	--	--	--	--	--	4
Russia	124	8,760	--	--	--	--	124	396
South Africa	48	438	--	--	--	--	48	274
Taiwan	--	--	--	--	--	--	--	22
United Kingdom	1	59	10	500	21	98	14	375
Other	2	42	--	--	--	--	2	5
Total	968	63,900	112	5,170	338	3,590	1,140	10,400
January–October	8,080	552,000	1,480	81,800	4,190	37,200	10,400	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)
2017:						
October	45	\$2,110	181	\$2,790	13	\$2,780
November	27	1,260	103	1,100	20	3,040
December	50	2,270	124	2,060	15	2,750
January–October	341	14,900	1,320 <sup>r</sup>	20,100 <sup>r</sup>	173 <sup>r</sup>	24,700 <sup>r</sup>
January–December	418	18,400	1,550	23,300	208	30,500
2018:						
January	42	2,040	198	3,090	19	3,330
February	63	3,230	161	2,780	22	2,870
March	38	2,070	258	3,650	41	4,760
April	45	2,550	164	3,760	21	2,600
May	85	4,150	207	3,190	51	4,850
June	38	2,480	212	3,860	24	3,350
July	26	1,770	226	4,080	24	4,050
August	25	1,720	179	2,880	23	2,830
September	24	1,580	186	2,890	32	3,620
October:						
Belgium	3	199	--	--	(3)	5
Canada	(3)	2	16	100	8	1,490
China	--	--	--	--	1	276
Finland	1	126	--	--	--	--
France	(3)	25	18	516	5	195
Germany	3	247	--	--	(3)	208
Ireland	--	--	58	527	(3)	97
Japan	(3)	25	15	267	(3)	11
Mexico	--	--	1	16	(3)	25
Norway	12	501	--	--	(3)	20
Switzerland	--	--	1	2	(3)	93
Taiwan	--	--	3	116	(3)	2
Tunisia	(3)	8	10	91	(3)	52
United Kingdom	20	1,230	142	2,530	20	1,290
Other	(3)	21	(3)	3	(3)	115
Total	41	2,380	264	4,170	35	3,880
January–October	427	24,000	2,050	34,300	293	36,100

<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)		
2017:								
October	485	\$13,600	7	\$235	19	\$281	494	4,360
November	841	11,200	4	169	20	295	849	5,210
December	507	11,600	11	507	19	330	520	5,730
January–October	4,190	94,400	185	2,410	166	1,890	4,360	XX
January–December	5,540	117,000	200	3,090	205	2,510	5,730	XX
2018:								
January	308	8,990	1	58	19	280	314	314
February	973	11,800	19	353	16	276	991	1,300
March	1,310	17,700	4	190	--	--	1,310	2,610
April	530	16,200	5	290	38	555	543	3,160
May	990	22,000	7	412	21	833	1,000	4,160
June	336	12,000	5	180	1	12	340	4,500
July	605	19,100	12	686	12	35	616	5,110
August	626	19,700	2	83	59	851	642	5,760
September	359	14,200	6	346	42	666	374	6,130
October	311	11,400	2	74	39	496	322	6,450
January–October	6,350	153,000	64	2,670	246	4,010	6,450	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.

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)
2017:				
October	107	\$8,340	--	--
November	85	10,200	--	--
December	94	10,400	3	\$7
January–October	1,010	81,600	250	1,030
January–December	1,190	102,000	253	1,040
2018:				
January	98	9,690	--	--
February	99	10,100	(3)	4
March	88	10,700	--	--
April	70	6,970	(3)	3
May	69	8,500	--	--
June	109	11,800	2	83
July	92	9,850	35	302
August	85	9,340	--	--
September	91	10,600	18	160
October	92	11,900	--	--
January–October	893	99,500	55	551

-- 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.