

## 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: kshedd@usgs.gov

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

**Internet:** https://www.usgs.gov/centers/nmic

## **COBALT IN APRIL 2020**

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in April 2020 was 26% less than that imported in April 2019. For the first 4 months of 2020, the amount of cobalt contained in imports was 4% more than that imported during the same period in 2019 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in April 2020 was 16% less than that exported in April 2019 and during the first 4 months of 2020, the amount exported was 23% less than that exported during the same period in 2019 (table 4).

## **Prices**

In April, the monthly average U.S. spot cobalt price decreased by 9% from that in March and was slightly lower than that in April 2019. The monthly average LME cash mean price was slightly lower than that in March and 12% lower than that in

April 2019. The following listed prices are for cobalt metal in April, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	15.10-16.50	15.76
LME cash mean <sup>2</sup>	13.38-13.38	13.38

<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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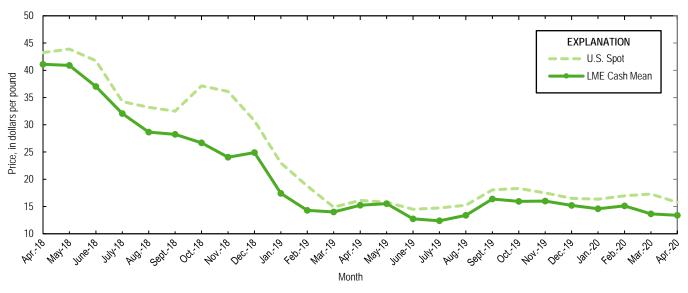


Figure 1. Average U.S. spot prices and LME cash mean prices for April 2018 through April 2020. Sources: Platts Metals Week and London Metal Exchange.

 $\label{table 1} \text{REPORTED STOCKS OF COBALT METAL, END OF PERIOD}$ 

(Metric tons, contained cobalt)

		LME <sup>1</sup>					
	U.S.	U.S.	Non-U.S.				
Period	Government <sup>2</sup>	warehouse	warehouse	Total			
2019:							
April	302	204	700	904			
May	302	200	661	861			
June	302	200	659	859			
July	302	191	649	840			
August	302	191	645	836			
September	302	191	643	834			
October	302	111	600	711			
November	302	111	576	687			
December	302	102	583	685			
2020:							
January	302	95	555	650			
February	302	94	551	645			
March	302	92	551	643			
April	302	91	513	604			

London Metal Exchange.

<sup>&</sup>lt;sup>2</sup>Data from Defense Logistics Agency Strategic Materials.

 $\label{eq:table 2} \textbf{U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY OR LOCALITY}^1$ 

	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cabalt	Cobalt
				nyuroxides	-	mpounds	Total cobalt	content,
D:11	Gross	4	Gross	4	Gross	4	content for	year to
Period and country or	weight	Value <sup>4</sup>	weight	Value <sup>4</sup>	weight	Value <sup>4</sup>	the period <sup>5</sup>	date <sup>5, 6</sup>
locality of origin	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2019:	1.250	440.400	4.54	42.050	220	42.520		4.070
April	1,260	\$48,400	161	\$3,960	239	\$3,630	1,470	4,870 1
May	1,220	43,000	190	4,740	286	2,880	1,440	6,310 <sup>r</sup>
June	558	17,800	123	3,000	141	1,190	687	7,000 1
July	1,030	33,900 <sup>r</sup>	181	4,350	115	1,580	1,200	8,200 <sup>1</sup>
August	674 <sup>r</sup>	20,100 <sup>r</sup>	119	2,670	88	1,120	790 <sup>r</sup>	8,990 1
September	1,420 <sup>r</sup>	48,300 <sup>r</sup>	123	3,110	191	1,930	1,570 <sup>r</sup>	10,600 <sup>1</sup>
October	779 <sup>r</sup>	27,800 <sup>r</sup>	198	5,150	152	1,640	973 <sup>r</sup>	11,500 1
November	829	29,600	167	4,600	231	3,110	1,030	12,600 <sup>1</sup>
December	1,210	42,500 <sup>r</sup>	102	2,740	103	1,370	1,320	13,900 1
January–April	4,230 <sup>r</sup>	190,000 <sup>r</sup>	505 <sup>r</sup>	14,000 <sup>r</sup>	803 <sup>r</sup>	13,100 <sup>r</sup>	4,870 <sup>r</sup>	XX
January-December	11,900 <sup>r</sup>	453,000 <sup>r</sup>	1,710 <sup>r</sup>	44,300 <sup>r</sup>	2,110 °	27,900 <sup>r</sup>	13,900 <sup>r</sup>	XX
2020:								
January	1,670	62,300	141	3,560	147	1,330	1,820	1,820
February	803	27,300	112	2,850	76	768	906	2,720
March	1,080	40,600	160	3,810	203	2,360	1,260	3,980
April:								
Australia								729
Belgium			46	1,320			33	96
Brazil					51	367	16	35
Canada	165	5,270	(7)	4			165	703
China	5	121			19	163	10	53
Finland	41	1,590	20	496	196	2,170	119	333
Germany	4	191			(7)	2	4	15
Japan	192	6,890					192	686
Korea, Republic of								15
Madagascar	84	3,150					84	313
Mexico	40	1,330					40	40
Morocco	20	712					20	100
Netherlands			4	66			3	14
Norway	218	7,630					218	1,340
Russia	143	5,000					143	347
South Africa	11	81					11	55
Taiwan								32
United Kingdom	4	222	32	866	14	179	32	161
Other			1	30			1	6
Total	927	32,200	103	2,780	279	2,880	1,090	5,070
January–April	4,480	162,000	516	13,000	706	7,330	5,070	XX

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

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

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

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

<sup>&</sup>lt;sup>4</sup>Customs value.

<sup>&</sup>lt;sup>5</sup>Estimated from gross weights.

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

<sup>&</sup>lt;sup>7</sup>Less than ½ unit.

 ${\it TABLE~3}$  U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY OR LOCALITY  $^1$ 

	Unwrought co	obalt allovs	Cobalt waste and scrap		Wrought cobalt and cobalt articles		
	Gross		Gross	und serup	Gross		
Period and country or	weight	Value <sup>2</sup>	weight	Value <sup>2</sup>	weight	Value <sup>2</sup>	
locality of origin	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	
2019:							
April	38	\$2,870	253	\$3,430	34	\$4,500 °r	
May	18	1,140	156	3,360	41	4,540 °	
June	21	1,550	145	1,460	47	4,480	
July	34	2,430	223	2,420	55	4,640 <sup>r</sup>	
August	39	2,470	171	2,440	23	3,180 °	
September	22	1,510	155	1,880	41 <sup>r</sup>	4,150 1	
October	16	875	158	2,130 <sup>r</sup>	47	4,980	
November	21	1,240	192	2,950	43	4,480	
December	40	2,280	152	2,170	52	5,320	
January–April <sup>r</sup>	158	10,100	745	10,100	142	18,000	
January-December	369 <sup>r</sup>	23,600 r	2,100	28,900 r	491 <sup>r</sup>	53,800 1	
2020:							
January	12	738	180	1,620	37	4,360	
February	36	1,650	69	769	30	3,570	
March	40	1,890	248	2,240	49	5,880	
April:							
Belgium	3	106			(3)	17	
Canada	(3)	15	9	79	2	605	
France			22	182	3	715	
Germany			5	2	2	251	
Japan	(3)	25	52	460			
Norway	5	404			(3)	83	
Romania			29	406			
Singapore			16	278			
Tunisia			13	135			
United Kingdom	41	2,020	16	232	21	1,880	
Other			4	54	3	675	
Total	49	2,570	167	1,830	31	4,230	
January–April	138	6,850	663	6,450	148	18,000	

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

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

<sup>&</sup>lt;sup>2</sup>Customs value.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF COBALT MATERIALS}^1$ 

-	Unwrought cob	alt, powders,						Cobalt
matte, waste and scrap <sup>2</sup>		and scrap <sup>2</sup>	Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt	content,
	Gross weight	Value <sup>4</sup>	Gross weight	Value <sup>4</sup>	Gross weight	Value <sup>4</sup>	content for the period <sup>5</sup>	year to date <sup>5, 6</sup>
Period	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2019:	(metric tons)	(tilousanus)	(metric tons)	(tilousalius)	(metric tons)	(tilousalius)	(metric tons)	(metric tons)
April	424	\$10,800	4	\$207	16	\$157	431	1,670 <sup>r</sup>
May	285	9,430	3	74	46	287	299	1,970 <sup>r</sup>
June	286 <sup>r</sup>	10,300 r	7	90	10	208	294 <sup>r</sup>	2,270 °
July	214	8,870	44	658	19	170	250	2,520 °
August	398	10,700	4	115			401	2,920 <sup>r</sup>
September	248 <sup>r</sup>	8,830 <sup>r</sup>	2	55	26	316	256 <sup>r</sup>	3,170 <sup>r</sup>
October	260 <sup>r</sup>	9,650 <sup>r</sup>	5	215	38	487	272 <sup>r</sup>	3,450 <sup>r</sup>
November	267	8,330 <sup>r</sup>	(7)	13			267	3,710 <sup>r</sup>
December	361	11,000	1	25	(7)	4	361	4,070 <sup>r</sup>
January-April	1,650 <sup>r</sup>	51,100 <sup>r</sup>	13	466	64	900	1,670 <sup>r</sup>	XX
January-December	3,970 <sup>r</sup>	128,000 <sup>r</sup>	79	1,710	203	2,370	4,070 <sup>r</sup>	XX
2020:								
January	335	11,900	8	326	32	93	349	349
February	301	8,930	14	489	3	39	311	660
March	248	8,320	7	249	65	292	268	928
April	351	8,700	3	109	39	340	363	1,290
January-April	1,240	37,900	31	1,170	139	764	1,290	XX

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

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

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

<sup>&</sup>lt;sup>3</sup>Cobalt acetates and cobalt chlorides.

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

<sup>&</sup>lt;sup>5</sup>Estimated from gross weights.

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

<sup>&</sup>lt;sup>7</sup>Less than ½ unit.

 $\label{eq:table 5} \mbox{U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,} \\ \mbox{AND CONCENTRATES}^1$ 

	Wrought co		Cobalt ore and			
	cobalt ar	ticles	concentrates			
	Gross		Gross			
	weight	Value <sup>2</sup>	weight	Value <sup>2</sup> (thousands)		
Period	(metric tons)	(thousands)	(metric tons)			
2019:						
April	151	\$13,300				
May	117	12,600	(3)	\$6		
June	109	11,400	(3)	5		
July	102	11,300				
August	127	13,700				
September	141 <sup>r</sup>	12,600 <sup>r</sup>	(3)	10		
October	229	17,200	(3)	4		
November	242	18,700				
December	208	16,700 <sup>r</sup>	77	211		
January-April	469	50,100	24	367		
January-December	1,750 <sup>r</sup>	164,000	102	603		
2020:	<u> </u>					
January	107	11,800	150	515		
February	128	14,900				
March	123	13,700				
April	100	10,600	(3)	6		
January-April	458	51,100	150	521		

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

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

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

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.