

## Mineral Industry Surveys

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## **COBALT IN FEBRUARY 2023**

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in February 2023 was 14% less than that imported during January 2023. For the first 2 months of 2023, the amount of cobalt contained in imports was slightly less than that imported during the same period in 2022 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in February 2023 was 20% less than that exported during January 2023 and during the first 2 months of 2023, the amount exported was essentially unchanged from the amount exported during the same period in 2022 (table 4).

## **Prices**

During the past 2 years, London Metal Exchange (LME) cobalt stocks trended downward until October 2022 and remained essentially unchanged through December 2022. LME cobalt stocks trended downward at the start of 2023. In February 2023, cobalt stocks decreased by 15% from those of January 2023. Monthly average cobalt prices generally trended up into the second quarter of 2022 before sharply declining through August. From September to December 2022, monthly average LME cash mean prices remained unchanged then declined further in 2023. In February 2023, the LME cash mean price decreased by 24% compared with that in January 2023 and was

48% lower than that in February 2022. Monthly average U.S. spot prices reported by S&P Global Platts Metals Week trended upward from August to October 2022, then declined through February 2023 (fig. 1, table 1). The February 2023 monthly average U.S. spot cobalt price decreased by 10% from that in January 2023 and was 52% lower than that in February 2022. The following listed prices are for cobalt metal in February, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	15.30-17.65	16.59
LME cash mean <sup>2</sup>	15.19-21.92	16.83

<sup>1</sup>Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode. <sup>2</sup>London Metal Exchange, mean of the cash buyer and cash seller price, minimum 99.8% cobalt briquettes, cathode, coarse grain powder, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

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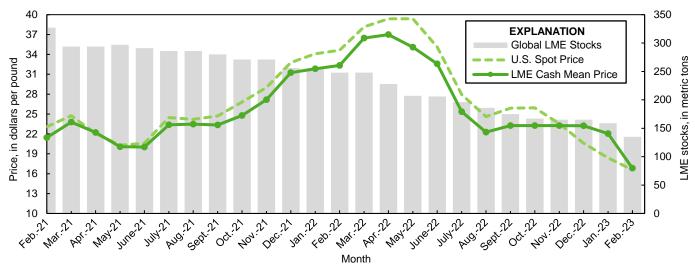


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for February 2021 through February 2023. Sources: S&P Global Platts Metals Week and London Metal Exchange.

TABLE 1 REPORTED STOCKS OF COBALT METAL, END OF PERIOD

(Metric tons, contained cobalt)

		$LME^2$					
	U.S.	U.S.	Non-U.S.				
Period	Government <sup>1</sup>	warehouse	warehouse	Total			
2022:							
February	302	54	194	248			
March	302	54	194	248			
April	302	54	174	228			
May	302	39	168	207			
June	302	39	167	206			
July	302	39	157	196			
August	302	39	147	186			
September	302	34	141	175			
October	302	34	133	167			
November	302	34	131	165			
December	302	34	131	165			
2023:							
January	302	34	125	159			
February	302	34	101	135			

<sup>&</sup>lt;sup>1</sup>Data from Defense Logistics Agency Strategic Materials.
<sup>2</sup>London Metal Exchange.

 ${\it TABLE~2}$  U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY OR LOCALITY  $^1$ 

	Metals <sup>2</sup>		Oxides and hydroxides					Cobalt
		als		iyaroxiaes	Salts and co	ompounds	Total cobalt	content,
Period and country or locality of origin	Gross weight (metric tons)	Value <sup>6</sup> (thousands)	Gross weight (metric tons)	Value <sup>6</sup> (thousands)	Gross weight (metric tons)	Value <sup>6</sup> (thousands)	content for the period <sup>4</sup> (metric tons)	year to date <sup>4, 5</sup> (metric tons)
2022:								
February	440	\$24,800	161	\$7,460	382	\$3,790	667	1,530
March	648	42,400	256	11,400	1,040	6,200	1,110	2,640
April	343	24,000	193	10,100	487	4,040	624	3,260
May	900	68,900	211	10,800	1,290	6,910	1,410	4,670
June	504	38,300	160	8,640	992	5,750	890	5,560
July	685	50,500	193	10,500	1,430	7,190	1,210	6,770
August	530	36,900	134	6,130	153	2,010	671	7,440
September	578	34,600	200	7,120	310	4,410	827	8,270
October	579	29,600	117	5,030	200	2,550	725	8,990
November	571	29,100	109	4,990	260	2,810	721	9,710
December	678	34,400	100	3,400	197	1,700	805	10,500
January–February	1,190	69,400	245	11,000	530	6,660	1,530	XX
January-December	7,210	458,000	1,920	89,100	6,900	50,200	10,500	XX
2023:								
January	593	27,700	184	6,160	262	3,760	803	803
February:								
Australia			10	299			7	7
Belgium			12	495			9	9
Brazil					78	299	21	21
Canada	223	10,600					223	396
Finland	(7)	28	28	829	92	694	45	294
France					10	216	4	5
Germany	10	564					10	18
Japan	75	3,580					75	142
Madagascar	84	3,920					84	105
Morocco								30
Netherlands			9	326			7	7
Norway	156	6,560					156	306
South Africa	==							58
Taiwan	(7)	28	12	451	34	405	17	24
United Kingdom	10	914	21	698	29	257	33	72
Other	1	66	3	119			3	4
Total	559	26,200	94	3,220	243	1,870	694	1,500
January-February	1,150	53,900	278	9,380	505	5,630	1,500	XX
XX Not applicable Zero.	,			- 7		- 7	7	

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>Estimated from gross weights.

<sup>&</sup>lt;sup>5</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>6</sup>Customs value.

<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  $^1$ 

					Wrought co	
	Unwrought c	obalt alloys	Cobalt waste	and scrap	cobalt a	rticles
	Gross		Gross		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)
2022:						
February	19	\$1,020	79	\$1,390	16	\$3,060
March	6	326	189	2,980	44	4,830
April	21	1,240	192	2,830	27	3,200
May	24	1,400	175	2,340	42	4,720
June	25	1,690	155	2,070	44	4,980
July	29	1,760	99	2,060	38	4,080
August	33	1,730	152	2,530	27	3,940
September	35	1,780	200	2,850	33	4,210
October	32	1,730	133	2,200	42	3,790
November	31	1,670	114	1,640	33	4,490
December	39	1,970	90	1,990	36	4,780
January–February	70	3,450	242	3,240	69	8,830
January-December	344	18,800	1,740	26,700	434	51,800
2023:						
January	61	3,180	150	2,350	26	3,850
February:						
Canada	1	119	2	51	4	1,240
China			12	25	1	548
Finland	3	294				
France			20	551	6	231
Germany	(3)	37	22	91	1	437
Ireland			41	178	(3)	36
Japan			2	30	(3)	6
Mexico			2	19	(3)	6
Taiwan			6	232	1	12
Tunisia			5	48	2	70
United Kingdom	15	749	29	982	20	3,000
Other	1	37	(3)	6	1	149
Total	19	1,240	140	2,210	36	5,740
January–February	81	4,420	289	4,560	61	9,580

<sup>--</sup> 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>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt	content,
D : 1	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	content for the period <sup>4</sup>	year to date <sup>4, 5</sup>
Period	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2022:								
February	293	\$11,600	1	\$50			293	749
March	597	16,600	3	94			599	1,350
April	378	13,200	1	44	(7)	\$5	379	1,730
May	493	17,600	7	304			498	2,220
June	400	12,200	2	79	(7)	6	402	2,630
July	381	14,600	3	145			384	3,010
August	410	12,000	7	297	(7)	4	416	3,430
September	344	12,200	7	298			349	3,780
October	584	16,900	2	64			585	4,360
November	529	13,900	7	281			535	4,890
December	460	13,600	1	31			460	5,360
January–February	747	26,000	3	132			749	XX
January-December	5,320	169,000	43	1,770	1	16	5,360	XX
2023:								
January	408	13,000	3	114	(7)	4	411	411
February	327	12,500	1	41			328	738
January-February	736	25,500	4	154	(7)	4	738	XX

XX Not applicable. -- Zero.

 $<sup>^{1}\</sup>mathrm{Data}$  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>Estimated from gross weights.

<sup>&</sup>lt;sup>5</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>6</sup>Free alongside ship (f.a.s.) value.

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

TABLE 5  $\mbox{U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, } \\ \mbox{AND CONCENTRATES}^1$ 

	Wrought co	obalt and	Cobalt ore and concentrates		
	cobalt a	rticles			
	Gross	<u> </u>	Gross		
	weight	Value <sup>2</sup>	weight	Value <sup>2</sup> (thousands)	
Period	(metric tons)	(thousands)	(metric tons)		
2022:					
February	103	\$13,300			
March	105	15,300			
April	204	19,200	(3)	\$4	
May	143	16,600			
June	164	16,400			
July	201	23,000			
August	114	18,500			
September	185	25,500	(3)	8	
October	121	17,200			
November	181	24,300			
December	182	21,000			
January-February	242	28,800			
January-December	1,840	226,000	(3)	12	
2023:		<u>.                                      </u>	_	_	
January	186	27,000			
February	118	19,300	(3)	4	
January–February	303	46,300	(3)	4	

<sup>--</sup> 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.