

## Mineral Industry Surveys

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## **COBALT IN AUGUST 2022**

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in August 2022 was 44% less than that imported during July 2022. For the first 8 months of 2022, the amount of cobalt contained in imports was 11% more than that imported during the same period in 2021 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in August 2022 was 8% more than that exported during July 2022 and during the first 8 months of 2022, the amount exported was 3% more than that exported during the same period in 2021 (table 4).

## **Prices**

During the past 2 years, London Metal Exchange (LME) stocks trended downward and cobalt prices generally trended upward through April 2022 before sharply declining through August 2022 (fig. 1, table 1). In August, the monthly average U.S. spot cobalt price decreased by 12% from that in July 2022 and was slightly higher than that in August 2021. The monthly average LME cash mean price decreased by 12% from that in

July 2022 and was 5% lower than that in August 2021. 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>	23.60-25.25	24.62
LME cash mean <sup>2</sup>	20.98-23.26	22.27

<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 99.3% cobalt briquettes, cathode, ingot, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

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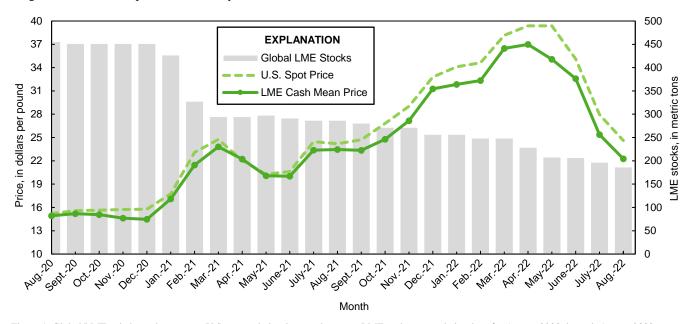


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for August 2020 through August 2022. Sources: S&P Global Platts Metals Week and London Metal Exchange.

TABLE 1 REPORTED STOCKS OF COBALT METAL, END OF PERIOD

(Metric tons, contained cobalt)

		LME <sup>1</sup>				
	U.S.	U.S.	Non-U.S.			
Period	Government <sup>2</sup>	warehouse	warehouse	Total		
2021:						
August	302	50	236	286		
September	302	50	230	280		
October	302	50	221	271		
November	302	50	221	271		
December	302	50	206	256		
2022:						
January	302	50	206	256		
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		

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

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

	Meta	de <sup>4</sup>	Oxides and hydroxides		Salts and compounds <sup>5</sup>		Total cobalt	Cobalt content,
	Gross		Gross	iyaroxiaes	Gross	iipouiius	content for	year to
Period and country or	weight	Value <sup>6</sup>	weight	Value <sup>6</sup>	weight	Value <sup>6</sup>	the period <sup>2</sup>	date <sup>2, 3</sup>
locality of origin	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2021:	(metric tons)	(urousurus)	(metric tons)	(inousunus)	(meure tons)	(inousunus)	(metre tons)	(meare tons)
August	801	\$37,800	187	\$6,620	216	\$2,300	1,000	6,690
September	577	28,500	174	6,590	199	3,070	766	7,460
October	722	35,200	168	6,040	269	3,710	926	8,380
November	475	25,500	267	10,100	230	3,310	736	9,120
December	440	25,500	169	6,410	410	5,070	679	9,800
January-August	5,000	209,000	1,440	45,600	2,210 <sup>r</sup>	25,200 <sup>r</sup>	6,690	XX
January-December	7,210	323,000	2,220	74,700	3,320	40,400	9,800	XX
2022:	7,210	323,000	2,220	74,700	3,320	40,400	2,000	AA
January	754	44,600	84	3,540	148	2,860	859	859
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		193					
	083	50,500	193	10,500	1,430	7,190	1,210	6,770
August: Australia								48
Belgium			7	220		407	5	151
Brazil					62	407	16	182
Canada	53	3,080					53	812
China	3	190	2	51	1	35	5	108
Finland	15	1,320	87	4,030	40	799	93	1,750
France								3
Germany	20	1,430	4	58	19	225	27	100
Hong Kong								49
Italy								4
Japan	60	5,620					60	808
Korea, Republic of								31
Madagascar	21	1,840					21	220
Malaysia								3
Mexico								30
Morocco								95
Netherlands			10	334			8	13
Norway	291	20,700					291	1,880
Russia	47	2,220					47	363
South Africa	13	106					13	121
Taiwan			6	420	25	419	11	170
Turkey								24
United Kingdom	6	400	19	1,020	6	126	22	423
Zambia								46
Other								3
Total	530	36,900	134	6,130	153	2,010	671	7,440
January-August	4,800	330,000	1,390	68,600	5,930	38,800	7,440	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>Estimated from gross weights.

<sup>&</sup>lt;sup>3</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>4</sup>Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

<sup>&</sup>lt;sup>5</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

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

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

	Unwrought co	obalt alloys	Cobalt waste and scrap		Wrought cobalt and cobalt articles		
Period and country or locality of origin	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)	
2021:							
August	3	\$120	128	\$1,680	51	\$4,530	
September	11	476	99	1,590	34	4,790	
October	20	1,110	160	2,300	27	4,470	
November	17	838	188	2,710	24	4,150	
December	30	1,460	135	1,200	32	4,710	
January-August	132	5,920	973	12,000	197	27,400 <sup>r</sup>	
January-December	210	9,800	1,560	19,800	315	45,500	
2022:							
January	51	2,440	163	1,840	53	5,770	
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:							
Belgium	6	437					
Canada	(3)	4	13	182	2	1,110	
France			37	702	6	387	
Ireland			30	247			
Japan			4	67	(3)	2	
Taiwan			6	232	1	11	
Tunisia					3	158	
United Kingdom	26	1,250	58	1,060	12	1,300	
Other	(3)	36	3	44	3	964	
Total	33	1,730	152	2,530	27	3,940	
January-August	208	11,600	1,200	18,000	290	34,600	

<sup>&</sup>lt;sup>r</sup>Revised. -- 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>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 cobalt, powders, matte, waste and scrap <sup>2</sup>			Oxides and hydroxides		Salts and compounds <sup>5</sup>		Total cobalt	Cobalt content,
Period	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>3</sup> (metric tons)	year to date <sup>3, 4</sup> (metric tons)
2021:								
August	285	\$9,810	2	\$79	6	\$58	288	3,340
September	339	11,500	1	32			340	3,680
October	493	15,600	2	85	(7)	10	494	4,170
November	424	10,400	2	101			426	4,600
December	333	10,000	2	96			335	4,930
January-August	3,310	91,400	36	751 <sup>r</sup>	9	122	3,340	XX
January-December	4,900	139,000	43	1,060	9	133	4,930	XX
2022:	• !							
January	454	14,400	2	83			456	456
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	415	3,430
January-August	3,410	112,000	26	1,100	1	16	3,430	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>Estimated from gross weights.

<sup>&</sup>lt;sup>4</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>5</sup>Cobalt acetates and cobalt chlorides.

 $<sup>^6</sup>$ 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 cobalt ar		Cobalt ore and concentrates		
Period	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	
2021:					
August	191	\$16,300			
September	121	10,900	(3)	\$8	
October	274	22,500			
November	139	13,400			
December	217	18,600	(3)	4	
January–August	1,070 <sup>r</sup>	105,000 <sup>r</sup>	2	14	
January-December	1,820	170,000	2	26	
2022:					
January	139	15,400			
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			
January–August	1,170	138,000	(3)	4	

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

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