

Mineral Industry Surveys

For information, contact:

Samantha M. Ewing, Cobalt Commodity Specialist
National Minerals Information Center
Telephone: (703) 648-6183
Email: sewing@usgs.gov

Annie Hwang (Data)

Telephone: (703) 648-7952

Email: ahwang@usgs.gov

Internet: <https://www.usgs.gov/centers/national-minerals-information-center/mineral-industry-surveys>

COBALT IN SEPTEMBER 2024

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in September 2024 was 10% less than that imported in August 2024. For the first 9 months of 2024, the amount of cobalt contained in imports was 14% more than that imported during the first 9 months of 2023 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in September 2024 was 59% more than that exported in August 2024 and the amount exported during the first 9 months of 2024 was 10% less than the amount exported during the same period of 2023 (table 4).

Prices and Stocks

In September, London Metal Exchange (LME) cobalt stocks were unchanged from August 2024 (table 1). The LME cash mean price was 5% less than that in August 2024, and was 27% less than that in September 2023. The September 2024 monthly average U.S. spot cobalt price was 5% less than that in August 2024 and 12% less than that in September 2023 (fig. 1). The following listed prices are for cobalt metal in September, in dollars per pound.

Type	Price range	Average price
U.S. spot ¹	Not available	15.47
LME cash mean ²	10.78–10.84	10.81

¹Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode.

²London 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).

Industry News

In September, Nth Cycle Inc. (MA) began commercial production of nickel-cobalt mixed hydroxide precipitate (MHP) at its facility in Fairfield, Ohio. MHP is an intermediate product that can be further refined for use in multiple applications, including lithium-ion batteries. Nth Cycle began production using a modular refining unit that can produce 900 metric tons of MHP per year that is 90% nickel and cobalt. The facility began producing MHP from shredded lithium-ion battery scrap (black mass) and other nickel- and cobalt-bearing scrap. Nth Cycle planned to scale up production by co-locating refining units with recyclers, original equipment manufacturers, or miners, at sites that generate scrap and other feedstock. Nth Cycle is the first company to produce nickel-cobalt MHP

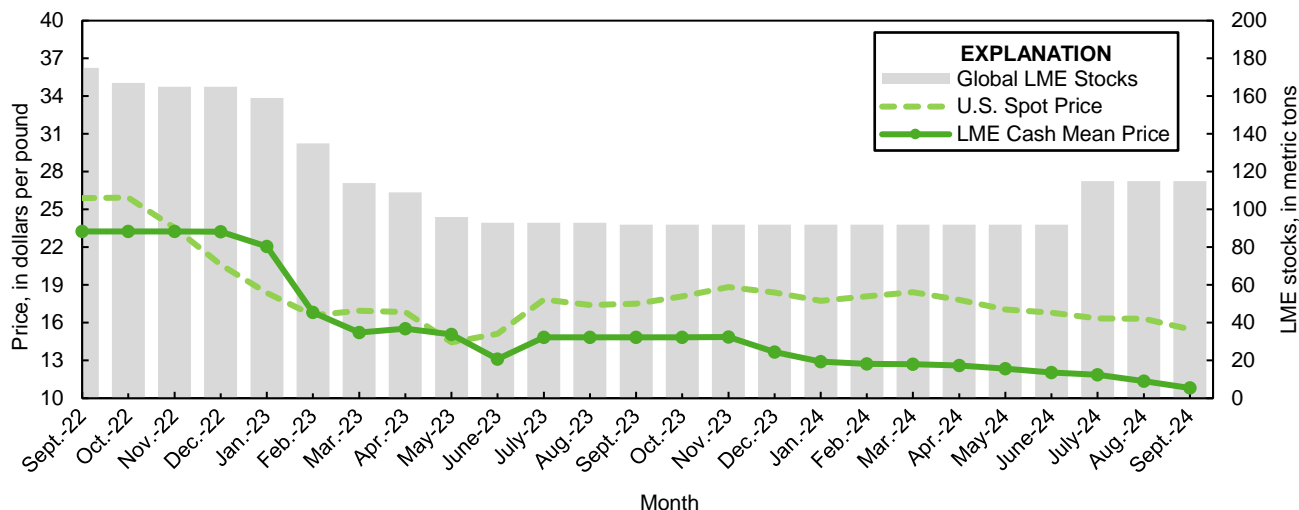


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for September 2022 through September 2024. Sources: London Metal Exchange and S&P Global Platts Metals Week.

domestically. The Ohio facility was supported by a \$7.2 million tax credit awarded in March 2024 under the Advanced Energy Project Tax Credit Program. The program was funded through the Inflation Reduction Act and aimed to increase domestic critical mineral recycling, processing and refining, as well as support clean energy manufacturing and industrial decarbonization (Keen, 2024; Nth Cycle Inc., 2024a, b; U.S. Department of Energy, 2024).

In September, the Biden Administration finalized tariff rate increases on Chinese goods that contain critical minerals, like cobalt. The tariff rate increases were recommended by the Office of the United States Trade Representative in May 2024 based on China's acts, policies and practices related to technology transfer, intellectual property and innovation. Effective September 27, tariffs on electric vehicles (EVs) from China increased from 25% to 100% and tariffs on EV lithium-ion batteries from China increased from 7.5% to 25%. Tariffs would increase from 7.5% to 25% for lithium-ion non-EV batteries beginning January 1, 2026 (Office of the United States Trade Representative, undated, p. 76581, 76590–76591; White House, The, 2024).

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- U.S. Department of Energy, 2024, Biden-Harris Administration announces \$4 billion in tax credits to build clean energy supply chain, drive investments, and lower costs in energy communities, Washington, D.C., U.S. Department of Energy news release, March 29. (Accessed November 27, 2024, at <https://www.energy.gov/articles/biden-harris-administration-announces-4-billion-tax-credits-build-clean-energy-supply>.)
- White House, The, 2024, Fact sheet—President Biden takes action to protect American workers and businesses from China's unfair trade practices: Washington, D.C., The White House press release, May 14. (Accessed November 14, 2024, at <https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/14/fact-sheet-president-biden-takes-action-to-protect-american-workers-and-businesses-from-chinas-unfair-trade-practices/>.)

A worksheet has been added to the Excel table files that includes a button to remove text and numerical footnotes from data cells. This will allow users to only have numbers in data cells. Please see the worksheet titled RemoveTextButton for instructions in how to use the tool. Note: you must download the excel file in order to use the tool.

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Table 1. Reported LME¹ stocks of cobalt metal, end of period.²
[Data are in metric tons, contained cobalt.]

Period	U.S. warehouse	Non-U.S. warehouse	Total
2023			
September	34	58	92
October	34	58	92
November	34	58	92
December	34	58	92
2024			
January	34	58	92
February	34	58	92
March	34	58	92
April	34	58	92
May	34	58	92
June	34	58	92
July	34	81	115
August	34	81	115
September	34	81	115

¹London Metal Exchange.

²U.S. Government National Defense Stockpile inventory statistics are no longer available.

Table 2. U.S. imports for consumption of cobalt, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

Period and country or locality of origin	Metals ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight (metric tons)	Value ⁵ (thousand dollars)	Gross weight (metric tons)	Value ⁵ (thousand dollars)	Gross weight (metric tons)	Value ⁵ (thousand dollars)		
2023								
September	614	21,600	71	1,330	183	1,960	722	6,910
October	502	19,100	118	2,640	282	2,040	663	7,570
November	842	29,500	82	2,100	278	2,290	979	8,550
December	750	26,800	75	1,780	491	4,630	952	9,500
January–September	5,580	218,000	1,120	29,600	1,710 ^r	18,700 ^r	6,910 ^r	—
January–December	7,670	293,000	1,390	36,100	2,760	27,700	9,500	—
2024								
January	807	30,200	324	6,830	217	2,630	1,110	1,110
February	668	22,000	189	3,960	289	2,660	895	2,010
March	501	17,100	132	2,570	210	1,860	664	2,670
April	901	29,500	109	1,980	241	2,640	1,050	3,720
May	1,220	40,700	195	4,080	102	917	1,390	5,110
June	638	19,900	126	2,350	162	1,230	778	5,890
July	548	16,400	73	1,440	128	920	637	6,530
August	587	18,800	114	2,410	116	1,110	704	7,230
September								
Australia	0	0	0	0	0	0	0	20
Belgium	0	0	12	233	0	0	9	202
Brazil	0	0	0	0	29	366	9	45
Canada	145	4,510	0	0	0	0	145	1,230
China	(⁶)	3	2	33	2	12	2	155
Finland	22	745	41	685	41	690	67	932
France	1	59	0	0	0	0	1	82
Germany	3	219	0	0	1	18	4	94
Hong Kong	0	0	0	0	0	0	0	14
Italy	0	0	1	39	0	0	1	10
Japan	124	3,630	0	0	0	0	124	1,200
Madagascar	82	2,290	0	0	0	0	82	1,200
Morocco	20	449	0	0	0	0	20	75
Norway	78	1,840	0	0	0	0	78	1,980
Russia	0	0	0	0	0	0	0	57
South Africa	60	1,350	0	0	40	215	71	177
Taiwan	0	0	0	0	24	172	6	64
Turkey	0	0	0	0	0	0	0	17
United Kingdom	4	411	11	187	4	43	13	249
Zambia	0	0	0	0	0	0	0	37
Other	0	0	(⁶)	2	0	0	(⁶)	16
Total	540	15,500	67	1,180	141	1,520	632	7,860
January–September	6,410	210,000	1,330	26,800	1,610	15,500	7,860	—

¹Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

²Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Customs value.

⁶Less than ½ unit.

Table 3. U.S. imports for consumption of additional cobalt materials, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". Source: U.S. Census Bureau.]

Period and country or locality of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)
2023						
September	7	331	93	1,370	58	4,680
October	23	1,270	207	2,850	28	3,980
November	17	861	213	3,430	55	4,350
December	18	924	212	3,120	34	4,020
January–September	249	12,700	1,260	18,400	328	41,700 ^r
January–December	306	15,800	1,890	27,800	445	54,100
2024						
January	24	1,110	118	1,060	27	4,750
February	53	2,400	179	2,150	28	4,120
March	32	1,410	146	1,980	45	4,990
April	23	1,010	120	1,220	54	4,640
May	46	2,430	73	757	56	5,460
June	20	1,000	189	1,960	47	4,900
July	60	2,720	170	1,370	51	5,470
August	43	1,820	130	1,630	50	5,220
September						
Belgium	5	190	0	0	0	0
Canada	(²)	6	21	294	2	909
China	0	0	1	10	2	728
France	(²)	81	17	8	11	630
Germany	2	45	18	238	6	476
Ireland	0	0	16	12	(²)	35
Japan	0	0	2	14	(²)	12
Singapore	0	0	19	225	(²)	60
Slovakia	0	0	7	127	0	0
Switzerland	3	124	1	2	(²)	67
Tunisia	0	0	9	78	0	0
United Kingdom	24	1,080	35	449	18	1,950
Other	(²)	3	0	0	1	211
Total	33	1,530	146	1,460	39	5,080
January–September	334	15,400	1,270	13,600	397	44,600

¹Customs value.

²Less than ½ unit.

Table 4. U.S. exports of cobalt materials.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript (r). —, not applicable. Source: U.S. Census Bureau.]

Period	Unwrought cobalt, powders, matte, waste and scrap ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight	Value ⁵	Gross weight	Value ⁵	Gross weight	Value ⁵		
	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)		
2023								
September	448	14,500	(⁶)	4	0	0	448	3,860
October	541	17,800	(⁶)	8	(⁶)	4	541	4,400
November	331	11,200	26	715	0	0	350	4,750
December	351	12,900	2	91	0	0	352	5,110
January–September	3,820 ^r	124,000	55	1,410	2	19	3,860 ^r	—
January–December	5,050	166,000	84	2,230	2	24	5,110	—
2024								
January	365	12,600	(⁶)	6	0	0	365	365
February	332	13,300	(⁶)	4	0	0	332	698
March	540	14,600	86	538	0	0	601	1,300
April	319	12,000	1	28	(⁶)	3	320	1,620
May	401	14,100	1	5	0	0	402	2,020
June	391	11,400	3	49	0	0	393	2,410
July	334	12,100	(⁶)	12	0	0	334	2,750
August	276	10,300	(⁶)	11	(⁶)	4	277	3,020
September	438	10,600	3	76	0	0	441	3,470
January–September	3,400	111,000	95	729	1	7	3,470	—

¹May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

²Cobalt acetates and cobalt chlorides.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Free alongside ship (f.a.s.) value.

⁶Less than ½ unit.

Table 5. U.S. exports of wrought cobalt, cobalt ore, and concentrates.

[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau]

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)
2023				
September	113	16,300	0	0
October	135	17,700	0	0
November	140	18,000	0	0
December	137	18,500	0	0
January–September	1,190	170,000	3	94
January–December	1,610	224,000	3	94
2024				
January	185	21,200	0	0
February	156	21,500	0	0
March	145	19,500	0	0
April	174	20,800	0	0
May	158	20,900	0	0
June	140	17,500	(²)	32
July	149	24,700	0	0
August	138	19,800	0	0
September	116	17,100	0	0
January–September	1,360	183,000	(²)	32

¹Free alongside ship (f.a.s.) value.²Less than ½ unit.