

# Mineral Industry Surveys

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# **COBALT IN MAY 2001**

U.S. consumption of cobalt in January through May 2001 was 5% lower than that during the first 5 months of 2000, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 12% higher during January through April 2001 than that of imports during the same period in 2000. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 53% higher during January through April 2001 than that during the same period in 2000. Trade data for May 2001 will be available in a subsequent issue.

## Note

With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

## Price

Prices for electrolytic cobalt, in dollars per pound, from Platts Metals Week are listed below.

<u>Date</u> June 14 June 21	<u>Price range</u> 11.00-12.00 10.25-11.00
June 28	10.25 - 11.00 10.00 - 10.75
July 5 July 12	9.20-10.00
July 17	9.20-9.75
<u>Month</u> June	Average price 11.28

# TABLE 1 U.S. REPORTED CONSUMPTION OF COBALT MATERIALS 1/

#### (Metric tons, contained cobalt)

		Oxide and		
		other chemical		
Period	Metal 2/	compounds 3/	Scrap	Total
2000:				
May	299	166	225	689
June	272	157	226	655
July	290	149	216	654
August	280	137	221	638
September	285	147	217	649
October	288	153	224	666
November	306	151	223	680
December	290	144	219	653
January-May r/	1,450	807	1,130	3,380
January-December 4/	3,460	1,850	2,680	7,980
2001:				
January	294	142	211	647
February	301 r/	145	211	657 r.
March	309 r/	143	210	662 r
April	306 r/	122	209	638 r.
May	282	118	210	610
January-May	1,490	669	1,050	3,210

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes metal powder.

3/ Data may include other cobalt materials.

4/ Data based on monthly reports.

#### TABLE 2

## U.S. REPORTED CONSUMPTION OF COBALT, BY END USE $1\!/$

#### (Metric tons, contained cobalt)

	20	000	2001		
	January-	January-		January-	
End use	May	December 2/	May	May 3/	
Steel	63 r/	137	18	86	
Superalloys	1,480	3,580	283	1,470	
Magnetic alloys	311 r/	752	56	308	
Other alloys 4/	W	W	W	W	
Cemented carbides 5/	345 r/	771	69	337	
Chemical and ceramic uses 6/	1,060	2,450	161	883	
Miscellaneous and unspecified	121	290	25	127	
Total	3,380 r/	7,980	610	3,210	

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Data based on monthly reports.

3/ May include revisions to prior months.

4/ Includes nonferrous alloys, welding materials, and wear-resistant alloys.

5/ Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts. 6/ Includes catalysts, driers in paints or related usage, feed or nutritive additive, glass decolorizer, ground coat frit, pigments, and other uses.

# TABLE 3 U.S. REPORTED STOCKS OF COBALT MATERIALS 1/

## (Metric tons, contained cobalt)

		Industry	/ 2/		
		Oxide and			U.S.
		other chemical			Government,
Period	Metal 3/	compounds 4/	Scrap	Total	metal 5/
2000:					
May	339	209	156	704	12,100
June	335	212	150	697	11,700
July	388	220	155	762	11,700
August	348	190	157	695	11,600
September	372	224	159	755	11,100
October	363	206	171	740	11,100
November	368	207	168	742	10,200
December 6/	362	215	166	743	10,200
2001:					
January	345 r/	200	165	711	10,200
February	343 r/	200	164	707 r/	9,810
March	342 r/	195 r/	163	700 r/	9,780
April	366 r/	214	163	743 r/	9,120
May	367	210	163	739	8,850

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Stocks reported by cobalt processors and consumers.

3/ Includes metal powder.

4/ Data may include other cobalt materials.

5/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

6/ Data based on monthly reports.

# TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

## (Kilograms, gross weight of material, except as noted)

Period and country	Meta	ls 2/	Oxides and h	vdroxides	Salts and con	nnounds 3/	Total cobalt content for	Cobalt content, year to
of origin	Quantity	Value 4/	Ouantity	Value 4/	Ouantity	Value 4/	the month 5/	date 5/ 6/
2000:	Quuntity	value i	Quantity	( unuo 1)	Quantity	, and the	une monun ex	dute of of
April	571,000	\$16,500,000	61,500	\$1,560,000	21,000	\$128,000	621,000	2,670,000
May	656,000 7/	20,700,000 7/	122,000	3,010,000	18,100	145,000	749,000	3,420,000
June	624,000 7/	18,100,000 7/	136,000	3,610,000	164,000	1,140,000	766,000	4,180,000
July	390,000 7/	11,400,000 7/	121,000	2,990,000	102,000	675,000	505,000	4,690,000
August	476,000 7/	13,800,000 7/	111,000	2,450,000	179,000	1,160,000	603,000	5,290,000
September	892,000	25,800,000	105,000	2,500,000	77,400	459,000	987,000	6,280,000
October	677,000 7/	19,800,000 7/	98,100	2,170,000	168,000	988,000	792,000	7,070,000
November	558,000 7/	15,800,000 7/	125,000	2,920,000	83,500 7/	544,000 7/	· · · ·	7,740,000
December	689,000	18,600,000	140,000	3,310,000	211,000	1,320,000	847,000	8,590,000
January-December	7,040,000	204,000,000	1,510,000	36,400,000	1,710,000	11,000,000	8,590,000	XX
2001:	5(2,000	15 (00.000	105 000	4 400 000	00.400	457.000	717.000	717.000
January	563,000	15,600,000	185,000	4,400,000	80,400	457,000	717,000	717,000
February	714,000 7/	17,000,000 7/	136,000	3,140,000	124,000	699,000	843,000	1,560,000
March	615,000	16,700,000	96,400 7/	2,050,000 7/	256,000	1,320,000	753,000	2,310,000
April:								25.000
Australia								35,000
Belgium Brazil	15,200	740,000	33,000	877,000	4,900	38,200	40,200	210,000
Canada	27,000	714,000					27,000 81,000	116,000
Canada	81,000	2,600,000					<i>,</i>	333,000 33,800
Congo (Kinshasa)	97,300 70,800	2,470,000			218.000		97,300	217,000
Finland	79,800	2,110,000	55,200	976,000 228,000	218,000	1,110,000	177,000	778,000
France	1,210	92,400	4,820	228,000			4,680	13,900
Germany India								21,200 267
Italy								
			200	16,700			 144	6,140 6,190
Japan Karra Daruhlia af	 93		200	16,700			144 93	313
Korea, Republic of		6,620						
Morocco								79,800
Norway	68,200	1,740,000					68,200	264,000
Russia	176,000	4,950,000					176,000	569,000
South Africa	39,900	883,000					39,900	177,000
Switzerland								76
Taiwan								240
Uganda								15,600
United Kingdom	181	5,110	12,900	306,000	11,400	90,900	12,300	34,600
Zambia	92,500	2,320,000					92,500	220,000
Total XX Not applicable 7	679,000	18,600,000	106,000	2,400,000	234,000	1,240,000	817,000	3,130,000

XX Not applicable. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder.

3/ Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

4/ Customs value.

5/ Estimated from gross weights.

6/ May include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

#### TABLE 5

# U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

	Unwrought		Other cobal	t: matte,	Wrought cobalt and		
Period and country	country cobalt alloys waste and scrap 2/		scrap 2/	cobalt articles			
of origin	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/	
2000:	_						
April	4,010	\$132,000	148,000 4/	\$2,390,000 4/	23,600	\$1,340,000	
May	22,900	562,000	57,900 4/	1,260,000 4/	17,900	1,120,000	
June	66,300	1,700,000	71,600 4/	1,770,000 4/	19,200	1,430,000	
July	5,290	137,000	55,000 4/	1,620,000 4/	29,500	1,160,000	
August	2,600	85,700	52,200 4/	1,090,000 4/	16,600	1,030,000	
September	12,000	359,000	83,000 4/	1,660,000 4/	17,500	1,390,000	
October	7,490	211,000	96,300 4/	2,180,000 4/	43,400	1,440,000	
November	14,000	472,000	58,400 4/	1,720,000 4/	21,500 4/	1,210,000 4	
December	6,270	141,000	40,500 4/	986,000 4/	17,100	1,100,000	
January-December	188,000	5,190,000	831,000	18,300,000	290,000	15,400,000	
2001:	-						
January	2,200	66,500	122,000 4/	1,880,000 4/	27,500	1,570,000	
February	4,920	116,000	77,200 4/	1,620,000 4/	24,900	1,380,000	
March	4.090	87,100	49.200 4/	381.000 4/	26,700	1.490,000	
April:		,	,	,	,		
Australia			10,500	148,000			
Belgium					150	7,880	
Canada			1,070 4/	54,100 4/	1,620	198,000	
Finland			19,700 4/	481,000 4/			
France		`	1,040 4/	87,200 4/	3,440	183,000	
Germany			10,900	120,000	296	17,100	
Japan			11,900 4/	502,000 4/	3,150	239,000	
Luxembourg			500 4/	20,000 4/			
Sweden	3,480	65,600					
United Kingdom	769	26,400	11,500 4/	134,000 4/	4,420	193,000	
Total	4,250	91,900	67,000	1,550,000	13,100	839,000	

## (Kilograms, gross weight of material, except as noted)

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes other intermediate products of cobalt metallurgy; may include other cobalt-bearing materials from which cobalt is extracted, or from which cobalt-containing chemical compounds are manufactured.

3/ Customs value.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

#### TABLE 6 U.S. EXPORTS OF COBALT MATERIALS 1/

#### (Kilograms, gross weight of material, except as noted)

	Unwrought col	· 1 · ·			<u> </u>	1.2/	Total cobalt	Cobalt content,
	matte, waste	and scrap 2/	Oxides and hy	droxides	Salts and cor	npounds 3/	content for	year to
Period	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/	the month 5/	date 5/6/
2000:								
April	123,000	\$5,410,000	143,000 7/	\$1,060,000 7/	177,000	\$525,000	269,000	751,000
May	132,000	5,020,000	78,600 7/	577,000 7/	29,500	289,000	195,000	946,000
June	66,000	2,770,000	111,000 7/	837,000 7/	18,000	168,000	150,000	1,100,000
July	152,000	6,580,000	138,000 7/	1,230,000 7/	23,100	219,000	257,000	1,350,000
August	191,000	5,130,000	176,000 7/	1,370,000 7/	18,400	169,000	322,000	1,680,000
September	275,000	8,090,000	201,000 7/	1,780,000 7/	58,500	242,000	434,000	2,110,000
October	65,900	2,430,000	96,900 7/	978,000 7/	46,900	451,000	147,000	2,260,000
November	106,000	4,220,000	62,200 7/	415,000 7/	12,800	146,000	154,000	2,410,000
December	165,000	5,280,000	107,000 7/	646,000 7/	81,200	346,000	261,000	2,670,000
January-December	1,520,000	54,200,000	1,370,000	11,800,000	676,000	3,650,000	2,670,000	XX
2001:								
January	93,500	3,140,000	200,000	1,540,000	26,500	263,000	244,000	244,000
February	216,000	6,020,000	131,000	823,000	13,200	124,000	313,000	557,000
March	166,000	5,700,000	171,000 7/	1,220,000 7/	14,400	90,700	292,000	850,000
April	141,000	4,550,000	210,000 7/	1,530,000 7/	19,500	192,000	298,000	1,150,000

XX Not applicable.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include other intermediate products of cobalt metallurgy, and unwrought cobalt alloys.

3/ Cobalt acetates and cobalt chlorides.

4/ Free alongside ship (f.a.s.) value.

5/ Estimated from gross weights.

6/ Year to date may include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

# TABLE 7 U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES 1/

#### (Kilograms, gross weight of material, except as noted)

Period         Quantity         Value 2/         Quantity           2000:	t ore and entrates
April         116,000         \$2,790,000         132,000           May         49,900         2,200,000         300,000           June         65,300         2,940,000         34,800           July         59,700         2,560,000         47,800           August         147,000         5,550,000         31,100           September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	Value 2/
May         49,900         2,200,000         300,000           June         65,300         2,940,000         34,800           July         59,700         2,560,000         47,800           August         147,000         5,550,000         31,100           September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	
June         65,300         2,940,000         34,800           July         59,700         2,560,000         47,800           August         147,000         5,550,000         31,100           September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ \$323,000 3/
July         59,700         2,560,000         47,800           August         147,000         5,550,000         31,100           September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ 189,000 3/
August         147,000         5,550,000         31,100           September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ 516,000 3/
September         40,300         2,630,000            October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ 1,410,000 3/
October         127,000         5,910,000         91,400           November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ 618,000 3/
November         66,600         3,680,000         3,610           December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	
December         50,200         1,650,000         54,300           January-December         963,000         37,800,000         695,000           2001:	3/ 303,000 3/
January-December         963,000         37,800,000         695,000           2001:	3/ 298,000 3/
Z001:	3/ 66,400 3/
January         56,500         1,790,000         42,000           February         89,000         2,070,000	3,730,000
February 89,000 2,070,000	
, , , ,	3/ 169,000 3/
March 118 000 3 040 000 75 200	
March 110,000 5,040,000 75,200	3/ 477,000 3/
April 55,000 1,860,000 95,000	3/ 677,000 3/

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Free alongside ship (f.a.s.) value.

3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.