

Mineral Industry Surveys

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CHROMIUM IN MARCH 2021

Estimated consumption of chromium, on a gross weight basis, in March 2021 increased by 7% compared with estimated consumption of chromium in February 2021, and was essentially unchanged compared with consumption in March 2020. Estimated consumer stocks increased slightly compared with stocks in February 2021 and essentially unchanged compared with those of March 2020 (tables 1, 2).

Stainless steel production increased by 8% in March 2021 compared with production in February 2021, and increased by 8% compared with production in March 2020 (table 1). Government stockpile inventories for chromium metal were essentially unchanged compared with those in February 2021 and decreased by 4% compared with those in March 2020.

Government stockpile inventories of ferroalloys decreased by 4% compared with those in February 2021 and decreased by 12% compared with those of March 2020 (table 3).

Imports of chromite ore, chromium ferroalloys, chromium metal, and stainless steel commonly fluctuate from month to month (table 1). In March 2021, imports of all grades of chromium ferroalloys more than doubled compared with imports of chromium ferroalloys in February 2021 and increased by 51% compared with those in in March 2020. Stainless steel imports in March 2021 increased by 6% compared with imports in February 2021 and decreased by 5% compared with those in March 2020 (fig. 1, table 1).

Exports of chromite ore, chromium ferroalloys, chromium



Figure 1. Chromium ferroalloys and stainless steel imports from March 2019 through March 2021. Source: U.S. Census Bureau.

metal, and stainless steel also frequently fluctuate from month to month (table 1, table 4). Exports of chromium ferroalloys increased by 88% in March 2021 compared with exports in February 2021 and increased by 98% compared with exports in March 2020. Stainless steel exports in March 2021 increased by 16% compared with exports in February 2021 and increased by 10% compared with those of March 2020 (table 1).

In March 2021, the leading import sources for ferrochromium (FeCr) into the United States were, in descending order of quantity by gross weight, South Africa, Kazakhstan, and Sweden (table 6), whereas the leading import sources for chromium metal were Russia, the United Kingdom, and France (table 7).

The U.S. chromium metal (99% Cr) average price was \$3.50 per pound in March 2021, a slight increase from the average price in February 2021, and a slight increase compared with the average price in March 2020. The U.S. high-carbon FeCr (62%–70% chromium) average price was 128.44 cents per pound of contained chromium in March 2021, a 7% increase from the average price in February 2021, and a 47% increase from the average price in March 2020 (fig. 2) (CRU Group, 2021a).

Industry News

Oman Chromite Co. reported that it would be unable to meet future production targets unless new exploration licenses were granted by Oman's Ministry of Energy and Minerals. Declining reserves and the need to remove large quantities of waste material to reach chromite ore in existing mines, along with the impact of the Covid-19 pandemic on the global economy, were cited as reasons for the decline in production (CRU Group, 2021b).

Canada's Minister of Natural Resources announced a list of 31 minerals considered by Canada to be critical to its economy and global supply chains. This list included chromium (Bedder, 2021).

References Cited

- Bedder, Jack, 2021, Critical materials—Canada unveils critical minerals list: London, United Kingdom, Roskill Information Services Ltd., March 12. (Accessed May 13, 2021, at https://roskill.com/news/critical-materialscanada-unveils-critical-minerals-list/.)
- CRU Group, 2021a, CRU prices: CRU Group, April 1. (Accessed May 11, 2021, via http://www.crugroup.com/.)
- CRU Group, 2021b, Oman Chromite faces production challenges: CRU Group, March 2. (Accessed May 13, 2021, via http://www.crugroup.com/.)

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Figure 2. Average monthly prices for U.S. high-carbon ferrochromium from March 2019 through March 2021. Source: CRU Group.

TABLE 1 U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2020		2021		
	January-				January–
	December ^p	January	February	March	March
Production, stainless steel ²	2,140,000	211,000	199,000	215,000	624,000
Components of U.S. supply:					
Stainless steel scrap receipts	758,000 ^e	45,600	56,200	60,700 ^e	162,000 e
Stainless steel scrap consumption	1,150,000 °	71,600	84,600	91,500 °	248,000 e
Imports for consumption:					
Chromite ore	101,000	7,970	1,990	5,440	15,400
Ferrochromium:					
More than 4% carbon	310,000	10,300	15,500	47,500	73,300
More than 3% but not more than 4% carbon	212		6,500	55	6,550
More than 0.5% but not more than 3% carbon	3,360		644	488	1,130
Not more than 0.5% carbon	37,400	3,540	1,070	5,530	10,100
Ferrochromium silicon	15,800	4,530	1,640	2,400	8,580
Total ferroalloy imports	367,000	18,400	25,300	56,000	99,700
Chromium metal ³	11,700	525	565	1,130	2,220
Stainless steel	694,000	58,900	53,400	56,800	169,000
Stainless steel scrap	220,000	19,500	25,900	23,200	68,500
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal ^e	335,000	34,300	32,200	34,300	101,000
Exports:					
Chromite ore	1,760	70	420	208	698
Chromium ferroalloys:					
High-carbon ferrochromium	949	24	50	60	133
Low-carbon ferrochromium	393		23	78	101
Ferrochromium silicon	238		39	71	110
Total ferroalloy exports	1,580	24	111 ^r	209	344
Chromium metal	378	44	30	47	120
Stainless steel	321,000	30,200	29,900	34,600	94,600
Stainless steel scrap	319,000	18,300	15,700	19,500	53,500
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal ^e	7,400	7,750	7,660	7,760	7,760
Government stockpile:					
Chromium ferroalloys	59,600	59,600	58,900	56,300	56,300
Chromium metal	3,750	3,750	3,690	3,690	3,690

^eEstimated. ^pPreliminary. ^rRevised. -- Zero. ¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Source: American Iron and Steel Institute.

³Includes waste and scrap and other.

TABLE 2 U.S. CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS¹

	2021				
			January–		
	February	March	March ²		
Consumption by end use:					
Steel:					
Carbon steel	W	W	W		
High-strength low-alloy steel ^e	140	150	440		
Stainless and heat-resisting steele	28,000	30,000	88,000		
Unspecified steel ^{e, 3}	3,400	3,400	10,200		
Superalloys ^e	300	350	1,000		
Other alloys and uses ⁴	W	W	W		
Total ^e	32,200	34,300	100,800		
Total, chromium content ^e	19,100	20,300	59,700		
Consumption by material:					
Low-carbon ferrochromium ^e	1,900	2,000	5,900		
High-carbon ferrochromium ^e	28,000	30,000	88,000		
Ferrochromium silicon	W	W	W		
Chromium metal ^e	150	160	470		
Chromite ore ^e	130	130	390		
Chromium-aluminum alloy	W	W	W		
Other chromium materials	W	W	W		
Total ^e	32,200	34,300	100,800		
Total, chromium content ^e	19,100	20,300	59,700		
Consumer stocks:					
Low-carbon ferrochromium ^e	800	800	800		
High-carbon ferrochromium ^e	2,400	2,500	2,500		
Ferrochromium silicon	W	W	W		
Chromium metal ^e	20	20	20		
Chromium-aluminum alloy	W	W	W		
Other chromium materials ^e	4,100	4,100	4,100		
Total ^e	7,660	7,760	7,760		
Total chromium content ^e	4,870	4,930	4,930		

"Estimated. W Withheld to avoid disclosing company proprietary data; included in "Total."

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

²May include revised data that are not broken out by specific month(s).

³Includes electrical, full alloy, tool, and unspecified steel end uses.

⁴Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosionresistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

TABLE 3U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS1

(metric tons)

	Chromium		
	High-carbon	Low-carbon	
	ferro-	ferro-	Chromium
	chromium	chromium	metal
2020:	_		
March	36,700	27,100	3,850
April	36,700	27,100	3,850
May	36,000	26,800	3,850
June	35,700	26,800	3,840
July	35,100	26,800	3,840
August	33,900	26,800	3,830
September	33,900	26,800	3,830
October	33,900	26,800	3,830
November	33,900	26,800	3,790
December	33,000	26,600	3,750
2021:			
January	33,000	26,600	3,750
February	32,400	26,500	3,690
March	28,800	27,500	3,690

¹Data are rounded to no more than three significant digits.

Source: Defense Logistics Agency, DLA Strategic Materials.

	Chromite ore		Ch	romium ferroallo	bys ²	Chromium metal ³	
	Gross		Gross	Chromium		Gross	
	weight	Value	weight	content	Value	weight	Value
	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)	(metric tons)	(thousands)
2020:							
March	140	\$79	106	63	\$207	35	\$972
April	115	83	118	61	182	31	550
May	155	90	85	41	106	35	1,050
June	186	133	56	34	72	33	529
July	96	68	133	71	180	46	1,770
August	305	97	149	90	233	42	927
September	- 19	8	208	115	324	33	727
October	139	120	260	157	316	23	942
November	59	45	83	51	141	22	580
December	222	136	252	133	306	16	531
January–December ⁴	1,760	1,050	1,580	893	2,280	378	9,960
2021:							
January	70	55	24	15	43	44	1,050
February	420	264	111	58	169	30	650
March	208	147	209	100	401	47	783
January-March	698	467	344	173	613	120	2,490

TABLE 4 U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

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

²Includes low- and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal, waste and scrap, and unwrought powders.

⁴May include revised data that are not broken out by specific month(s).

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND CHROMIUM METAL $^{\rm 1}$

(Metric tons)

	2020		2021	
	January-			January-
	December	February	March	March ²
Chromite ore:				
Not more than 40% chromic oxide:	=			
Gross weight	3,600	36	1,770	3,570
Chromic oxide content	909	14	374	752
More than 40% but less than 46% chromic oxide:	=			
Gross weight	11,000	1,920	2,100	5,070
Chromic oxide content	4,780	846	905	2,200
46% or more chromic oxide:	=			
Gross weight	86,300	39	1,570	6,760
Chromic oxide content	77,500	19	1,550	4,030
Total, all grades:				
Gross weight	101,000	1,990	5,440	15,400
Chromic oxide content	83,200	879	2,830	6,990
Ferrochromium:				
Low-carbon: ³	=			
Not more than 0.5% carbon:	_			
Gross weight	37,400	1,070	5,530	10,100
Chromium content	25,200	771	3,910	7,190
More than 0.5% but not more than 3% carbon:	=			
Gross weight	3,360	644	488	1,130
Chromium content	2,260	427	347	774
Total, low-carbon:				
Gross weight	40,800	1,710	6,020	11,300
Chromium content	27,400	1,200	4,250	7,960
Medium-carbon: ⁴	_			
Gross weight	212	6,500	55	6,550
Chromium content	116	3,310	29	3,340
High-carbon: ⁵	_			
Gross weight	310,000	15,500	47,500	73,300
Chromium content	169,000	8,500	27,100	42,500
Total, all grades:				
Gross weight	351,000	23,700	53,600	91,100
Chromium content	196,000	13,000	31,400	53,800
Chromium metal:				
Unwrought powders	9,790	500	981	1,910
Waste and scrap	168	9		10
Other than waste and scrap and unwrought powders	1,690	<u>5</u> 5	151	306
Total, all grades	11,700	565	1,130	2,220

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrochromium containing more than 4% carbon.

 TABLE 6

 U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2021, BY GRADE AND COUNTRY OR LOCALITY¹

		March			January–March ²			
	Gross	Chromium		Gross	Chromium			
	weight	content	Value ³	weight	content	Value ³		
Grade and country or locality	(metric tons)	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)		
High-carbon ferrochromium: ⁴	. ,	, ,	· /	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
Albania	1,290	876	\$1,670	1,840	1,270	\$2,320		
Finland				1,500	800	1,190		
India	189	113	159	688	415	580		
Kazakhstan	8,330	5,760	13,700	19,800	13,700	28,000		
Russia	487	336	598	781	533	931		
South Africa	22,700	11,000	20,100	34,000	16,600	29,500		
Sweden	9,100	6,050	13,400	9,100	6,050	13,400		
Turkey				200	124	229		
Zimbabwe	5.450	3.010	3,760	5,450	3.010	3.760		
Total	47,500	27,100	53,300	73,300	42,500	79,900		
Medium-carbon ferrochromium: ⁵		- ,			/			
Russia	55	29	29	55	29	29		
South Africa				6,500	3,310	5,340		
Total	55	29	29	6,550	3,340	5,370		
Low-carbon ferrochromium: ⁶				,	,	, , , , , , , , , , , , , , , , , , , ,		
More than 0.5% but not more than 3% carbon								
Brazil				318	197	436		
Kazakhstan	488	347	1.440	814	577	2.280		
Total	488	347	1.440	1.130	774	2.720		
Not more than 0.5% carbon:			1 -	,		,		
Belgium				368	287	1.160		
Brazil	150	93	213	821	515	1.200		
Germany	984	764	3,190	1,710	1,330	5,500		
Japan	115	82	445	179	128	696		
Kazakhstan	1.920	1.380	5.290	3.000	2.160	8,170		
Russia	2.290	1.530	6.070	3.100	2,100	8.010		
Turkey	75	51	184	966	666	2.040		
Total	5.530	3.910	15.400	10.100	7,190	26.800		
All grades:		5,910	10,100	10,100	,,120	20,000		
Albania	1.290	876	1.670	1.840	1.270	2.320		
Belgium				368	287	1.160		
Brazil	150	93	213	1.140	712	1,630		
Finland				1,500	800	1,000		
Germany	984	764	3 190	1,200	1 330	5 500		
India	189	113	159	688	415	580		
Japan	115	82	445	179	128	696		
Kazakhstan	10 700	7 490	20 400	23 600	16 400	38 500		
Russia	2 830	1,900	6 700	3 930	2 660	8 970		
South Africa	2,000	11 000	20,100	40 500	19 900	34 800		
Sweden	Q 100	6 050	13 /00	9 100	6 050	13 /00		
Turkey	9,100 75	51	13,400	1 170	700	2 270		
Zimbahwe	73 5 450	3 010	3 760	5 450	3 010	2,270		
Total	53 600	31 400	70,200	91 100	53 800	115 000		
1 0141	55,000	51,400	10,200	<i>J</i> 1,100	55,000	115,000		

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁶Ferrochromium containing not more than 3% carbon.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2021,
BY GRADE AND BY COUNTRY OR LOCALITY ¹

Grade and country or locality Gross weight Value ³ Gross weight Value ³ Unvrought powders: Belgium (metric tons) (thousands) (metric tons) (thousands) Belgium - - 3 \$88 China 67 \$628 147 1.260 Prance 229 1.460 477 3.000 Germany 93 481 139 735 India 20 163 39 330 Russia 354 2.050 679 3.920 Spain - - 46 223 United Kingdom 219 1.930 375 3.290 Total - - 1 100 Germany - - 1 10 Japan - - 1 5 Total - - 1 55 Japan 1 52 3 127 Licehtenstein		March		January–March ²	
Grade and country or locality (metric tons) (thousands) (metric tons) (thousands) Unwrought powders: - - - 3 S88 China 67 \$628 147 1.260 France 229 1.460 477 3.000 Germany 93 481 139 735 India 20 163 39 330 China 534 2.050 677 3.290 Spain - - 46 223 United Kingdom 219 1.930 375 3.290 Canada - - 6 32 Germany - - 1 10 Japan - - 1 10 Japan - - 1 85 Germany - - 1 55 Total - - 1 52 Other than waste and scrap and unwrought powders: <t< th=""><th></th><th>Gross weight</th><th>Value³</th><th>Gross weight</th><th>Value³</th></t<>		Gross weight	Value ³	Gross weight	Value ³
Unvrought powders: - - - 3 S88 China 67 5628 147 3.000 France 229 1.460 477 3.000 Germany 93 481 139 735 India 20 163 39 330 Russia 354 2.050 679 3.290 Spain - - - 46 223 United Kingdom 219 1.930 375 3.290 Total 981 6.720 1.910 12.800 Waste and scrap: - - 1 10 Canada - 1 15 Total - 1 15 Japan 1 52 3 1270 Licchtenst	Grade and country or locality	(metric tons)	(thousands)	(metric tons)	(thousands)
Belgium 3 \$88 China 67 \$628 147 1,260 France 229 1,460 477 3,000 Germany 93 481 139 735 India 20 163 39 330 Spain 46 223 United Kingdom 219 9,30 375 3,290 Total 46 223 Gernany 6 32 Gernany 1 15 Licchtenstein 1 15 Total 1 16 Taiwan 1 15 Germany 1 15 Japan 1 16 Malaysia 1 15 Japan	Unwrought powders:	, ,	, ,	. ,	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Belgium			3	\$88
France 229 1,460 477 3,000 Germany 93 481 139 735 India 20 163 39 330 Russia 354 2,050 679 3,920 Spain 46 223 United Kingdom 219 9,30 375 3,290 Total 981 6,720 1,910 12,800 Waste and scrap: 6 32 Germany 1 16 Taiwan 1 15 Total 1 15 Canada 10 78 Other than waste and scrap and unwrought powders: 10 78 China 10 78 74 14 125 Germany - 10 70 73 7	China	67	\$628	147	1,260
	France	229	1,460	477	3,000
India 20 163 39 330 Russia Spain 354 2.050 679 3.920 United Kingdom 219 1.930 375 3.290 Total 219 1.930 375 3.290 Maste and scrap: $$ $$ 6 32 Germany $$ $$ 1 15 Liechtenstein $$ $$ 1 15 Total $$ $$ 1 16 Quher than waste and scrap and unwrought powders: $$ $$ 1 54 1 85 Germany 1 54 1 85 $$ $$ 10 Malaysia $$ $$ $$ 10 76 726 1.400 807 263 1.400 Malaysia $$ $$ $$ 23 1111 Total $$ $$ 23	Germany	93	481	139	735
Russia 354 2.050 679 3.920 Spain 46 223 United Kingdom 219 1.930 375 3.290 Total 981 6.720 1.910 12.800 Waste and scrap: 6 32 Canada 1 10 Japan 1 10 Total 1 15 Total 1 15 Total 1 15 Total 1 15 Germany 1 52 3 127 Licchtenstein 40 10 Malaysia 40 10 Malaysia 40 9 United Kingdom 9 100 15 <	India	20	163	39	330
Spain 46 223 United Kingdom 219 1,930 375 3,290 Waste and scrap: 981 6,720 1,910 12,800 Garnany 6 32 Japan 1 10 Taiwan 1 15 Total 1 15 Canada 1 15 Total 10 78 Other than waste and scrap and unwrought powders: 10 78 Canada 10 78 78 Germany 1 52 3 127 Japan 1 52 3 127 Liechtenstein (4) 4 (4) 4 Netherlands (4) 2 (4) 7 70 70 10	Russia	354	2,050	679	3,920
United Kingdom 219 1.930 375 3.290 Total 981 6.720 1.910 12.800 Waste and scrap: 6 32 Germany 1 10 Japan 1 15 Licchtenstein 1 5 Total 1 5 Other than waste and scrap and unwrought powders: 10 78 Germany (4) 4 (4) 7 Japan 1 52 3 127 Licchtenstein (4) 140 44 44 Netherlands 23 111 72 3 Malaysin 23 111 70 763 $1,480$ Spain 23 1111 700 710 </td <td>Spain</td> <td></td> <td></td> <td>46</td> <td>223</td>	Spain			46	223
Total 981 $6,720$ $1,910$ $12,800$ Waste and scrap: 6 32 Germany 1 10 Japan 1 10 Taiwan 1 15 Total 10 78 Other than waste and scrap and unwrought powders: 10 78 Canada 10 78 78 723 127 Liechtenstein 10 78 744 45 39 330 330 </td <td>United Kingdom</td> <td>219</td> <td>1,930</td> <td>375</td> <td>3,290</td>	United Kingdom	219	1,930	375	3,290
Waste and scrap: 6 32 Germany 1 10 Japan 1 10 Liechtenstein 1 15 Liechtenstein 1 15 Total 1 15 Other than waste and scrap and unwrought powders: 10 78 China 1 54 1 85 6 Germany 4 4 4 4 10 Malaysia 10 78 Spain 4 10 44 5 1	Total	981	6,720	1,910	12,800
Canada 6 32 Germany 1 10 Japan 1 15 Licchtenstein 1 15 Total 1 15 Other than waste and scrap and unwrought powders: 10 78 Other than waste and scrap and unwrought powders: 10 78 Germany 1 54 1 85 Germany 1 52 3 127 Liechtenstein -0 78 Japan 1 52 3 127 Liechtenstein (4) 4 (4) Mathysia (4) 4 (4) 4 Netherlands 23 1111 Taiwan 3 88 Canada <td>Waste and scrap:</td> <td></td> <td><i>.</i></td> <td><i>,</i></td> <td>, , , , , , , , , , , , , , , , , , ,</td>	Waste and scrap:		<i>.</i>	<i>,</i>	, , , , , , , , , , , , , , , , , , ,
Germany 1 10 Japan 1 15 Licchtenstein 1 15 Taiwan 1 15 Other than waste and scrap and unwrought powders: 10 78 Canada 10 78 Germany 10 78 Japan 1 54 1 85 Germany -0 74 Malaysia -4 10 Malaysia -4 10 Malaysia 23 111 Taiwan 23 1111 Taiwan 23 120 Total 11 100 306 2,140 All grades: 3 88	Canada			6	32
Japan115Liechtenstein115Total115Other than waste and scrap and unwrought powders:1078Other than waste and scrap and unwrought powders:(4)4(4)7China(4)4(4)7Germany(4)411129Japan1523127Liechtenstein(4)10Malaysia(4)4(4)4Netherlands(4)2(4)7Russia1408072631,480Spain23111Taiwan(4)9United Kingdom910015170Total388Canada(4)4639China686821481,350France2291,4604773,000Germany293522141874India2016339330Japan1524142Liechtenstein116116India1524142Liechtenstein116116Russia4942,850	Germany			1	10
Liechtenstein 1 6 Taiwan 1 15 Total 10 78 Other than waste and scrap and unwrought powders: 10 78 Canada (4) 4 (4) 7 China 1 54 1 85 Germany (4) 41 1 129 Japan 1 52 3 127 Liechtenstein (4) 10 Malaysia (4) 4 (4) 4 Netherlands (4) 2 (4) 7 Russia 140 807 263 1,480 Spain 23 1111 Taiwan 23 1111 Taiwan 3 88 Canada 3 88 Ch	Japan			1	15
Taiwan 1 15 Total 1 15 Other than waste and scrap and unwrought powders: (4) 4 (4) 7 Canada (4) 4 1 85 Germany (4) 41 1 129 Japan 1 52 3 127 Liechtenstein (4) 4 4 Malaysia (4) 4 (4) 4 4 Netherlands (4) 2 (4) 7 Russia 140 807 263 1,480 Spain 23 111 Taiwan 23 111 Taiwan 23 1111 Taiwan 3 88 Canada (4) 4 6 39 China 68 682 148 1,350 France 229 1,460 477 3,000 <t< td=""><td>Liechtenstein</td><td></td><td></td><td>1</td><td>6</td></t<>	Liechtenstein			1	6
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¹Data are rounded to no more than three significant digits; may not add to totals shown. ²May include revised data that are not broken out by specific month(s). ³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties,

freight, insurance, and other charges incurred in bringing the merchandise into the United States.

⁴Less than ¹/₂ unit.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2021 ¹

	Ma	March		January–March ²		
	Gross weight	Value ³	Gross weight	Value ³		
Stainless steel product	(metric tons)	(thousands)	(metric tons)	(thousands)		
Exports:						
Ingot	925	\$5,840	2,200	\$15,500		
Flat-rolled (width > 600 mm)	21,000	65,400	59,300	175,000		
Flat-rolled (width < 600 mm)	5,970	32,700	15,200	86,900		
Bars and rods in irregular coils	198	887	684	3,750		
Other bars and rods	2,220	24,500	6,350	61,800		
Wire	1,070	10,500	2,310	25,300		
Tubes, pipes, hollow profiles	3,210	28,800	8,550	78,300		
Total	34,600	169,000	94,600	447,000		
Stainless steel scrap	19,500	22,300	53,500	61,000		
Grand total	54,000	191,000	148,000	508,000		
Imports:						
Ingot	7,000	48,100	42,200	164,000		
Flat-rolled (width > 600 mm)	21,800	56,700	53,400	131,000		
Flat-rolled (width < 600 mm)	4,840	15,900	12,400	40,700		
Bars and rods in irregular coils	2,910	9,560	6,310	22,200		
Other bars and rods	9,010	36,600	24,900	96,700		
Wire	3,470	14,800	8,840	35,600		
Tubes, pipes, hollow profiles	7,740	44,900	21,000	122,000		
Total	56,800	226,000	169,000	612,000		
Stainless steel scrap	23,200	29,600	68,500	80,600		
Grand total	80,000	256,000	238,000	692,000		

¹Data are rounded to no more than three significant digits; may not add to totals shown. ²May include revised data that are not broken out by specific month(s).

³Export value is free alongside ship. Import value is Customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other incurred in bringing the merchandise into the United States.