

Mineral Industry Surveys

For information, contact:

Michael J. Magyar, Vanadium Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4964, Fax: (703) 648-7757
E-mail: mmagyar@usgs.gov

Subina W. Pandey (Data)
Telephone: (703) 648-7966
Fax: (703) 648-7975

Internet: <http://minerals.usgs.gov/minerals>

VANADIUM IN DECEMBER 2002

Domestic consumption of vanadium in December 2002 was about 2% more than that of the previous month and was about 11% more than that of December 2001, according to the U.S. Geological Survey. U.S. consumption of vanadium in products in 2002 was about 4% (140 tons) less than that of the previous year. Consumer stocks of vanadium, in all forms, were 264 metric tons at the beginning of 2002, and 186 metric tons at the end of December.

According to Ryan's Notes (2003), the range for U.S. ferrovanadium prices during December was \$4.267 to \$4.489 per pound of vanadium content, compared with \$4.050 to \$4.400 in November. European ferrovanadium ranged from \$9.400 to \$9.900 per kilogram of vanadium content in December as compared to \$6.725 to \$7.075 in November. Power problems in Russia restricted vanadium metal supply to Europe so material was expected to be directed toward Europe from the United States (American Metal Market, 2002). In December, vanadium pentoxide prices ranged from \$1.60 to \$1.70 per pound, representing no change from November.

Ferrovanadium imports from South Africa and China will be subject to antidumping duties of 13%-116% following a final vote by the U.S. International Trade Commission on December 19 (Platts Metals Week, 2002). The U.S. Department of

Commerce had previously announced final antidumping duty margins on imports of ferrovanadium from South Africa and China. Margins of 116% were set for Xstrata Plc., Highveld Steel and Vanadium Corp., Ltd., and other South African producers. Margins of 13.03% were set for Panzhihua Iron & Steel and 66.71% for other Chinese producers.

In a related decision, the Vanadium Committee of the Ferroalloys Association, Washington, D.C., withdrew its application to the U.S. Commerce Department to request an anticircumvention inquiry to determine if Russian vanadium pentoxide converted to ferrovanadium in third countries, should be included within the dumping order on Russian ferrovanadium (Ryan's Notes, 2002).

References Cited

- American Metal Market, 2002, U.S. ferrovanadium rises as Russia power woes put squeeze on Europe: American Metal Market, v. 110, no. 99-5, December 20, p. 1.
- Platts Metals Week, 2002, FeV imports injured, dutiable: Platts Metals Week, v. 73, no. 51, December 23, p. 13.
- Ryan's Notes, 2002, Circumvention case on FeV withdrawn: Ryan's Notes, v. 8, no. 48, December 2, p. 1.
- Ryan's Notes, 2003, [untitled]: Ryan's Notes, v. 9, no. 1, January 6, p. 4.

Notice

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TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM 1/

(Kilograms, contained vanadium)

	2001 p/		2002			
	Consumption	Stocks	November		December	
			Consumption	Stocks	Consumption	Stocks
Ferrovandium 2/	2,800,000	245,000	217,000	195,000	223,000	166,000
Vanadium-aluminum alloy	W	10,500	W	W	W	W
Other 3/	484,000	7,910	21,900	20,400	20,400	20,200
Total	3,280,000	264,000	239,000	216,000	243,000	186,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Other."

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

2/ Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

3/ Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE 1/

(Kilograms, contained vanadium)

	2001 p/	2002		
		November	December	Year to date
Steel:				
Carbon	997,000	70,000	71,900	878,000
High-strength low-alloy	769,000	W	W	W
Stainless and heat-resisting	26,300	1,920	1,840	36,600
Full alloy	701,000	54,500	60,200	754,000
Tool	261,000	22,700	19,600	265,000
Total steel	2,750,000	149,000	154,000	1,930,000
Superalloys	16,000	940	983	13,400
Miscellaneous and unspecified 2/	514,000	88,700	88,900	1,190,000
Total consumption	3,280,000	239,000	243,000	3,140,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Total steel."

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

2/ Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP 1/

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2001	10,100	\$45,100	50,000	\$639,000
2002:				
September	--	--	3,610	269,000
October	--	--	1,260	182,000
November:				
Canada	19,100	36,100	--	--
Germany	--	--	919	17,200
Russia	--	--	454	35,700
Total	19,100	36,100	1,370	52,900
Year to date	97,500	206,000	32,300	1,270,000
Exports:				
2001	363,000	6,990,000	26,300	380,000
2002:				
September	31,800	685,000	28,200	298,000
October	72,200	1,430,000	1,940	43,300
November:				
Canada	25,400	747,000	--	--
Germany	--	--	2,280	10,000
Hong Kong	7,290	142,000	--	--
Italy	1,000	18,400	--	--
Japan	1,160	30,200	--	--
Mexico	1,160	34,200	--	--
Taiwan	1,360	40,100	--	--
United Kingdom	479	14,100	440	6,040
Total	37,900	1,030,000	2,720	16,000
Year to date	501,000	11,200,000	48,500	890,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2001	2,550,000	\$20,500,000	600,000	\$3,460,000	1,080,000	\$510,000
2002:						
September	225,000	2,010,000	42,400	336,000	2	2510
October	203,000	1,670,000	29,300	238,000	1	3560
November:						
Belgium	28,300	272,000	--	--	--	--
Canada	69,000	656,000	--	--	1	10,000
Czech Republic	48,100	375,000	--	--	--	--
Italy	--	--	--	--	38	2,030
South Africa	16,000	155,000	--	--	--	--
Switzerland	14,200	152,000	--	--	--	--
United Kingdom	16,100	106,000	--	--	--	--
Total	192,000	1,720,000	--	--	39	12,000
Year to date	2,450,000	18,700,000	334,000	1,820,000	42,300	560,000

See footnotes at end of table.

TABLE 4--Continued
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Exports:						
2001	70,000	\$768,000	71,400	\$407,000	63,000	\$562,000
2002:						
September	8,850	121,000	2,030	27,700	4,920	47,000
October	11,200	142,000	7,060	68,200	18,900	185,000
November:						
Canada	--	--	--	--	15,000	197,000
India	--	--	--	--	1,380	21,400
Italy	--	--	17,200	95,900	--	--
Mexico	14,400	134,000	1,980	21,100	--	--
Spain	--	--	18,000	88,100	--	--
Total	14400	134000	37200	205000	16400	218000
Year to date	141,000	1,530,000	89,200	542,000	184,000	1,510,000

-- Zero.

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

2/ May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG 1/

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity	Value
2001	1,980,000	\$2,270,000	1,980,000	\$1,290,000	998,000	\$1,170,000
2002:						
September	118,000	13,600	125,000	148000	--	--
October	496,000	60,400	240,000	141000	--	--
November:						
Canada	--	--	151,000	137,000	--	--
Mexico	235,000	28,200	22,600	6,250	--	--
Total	235,000	28,200	174,000	143,000	--	--
Year to date	3,370,000	437,000	2,220,000	1,410,000	--	--

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS 1/

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2001	--	--	102,000	\$623,000
2002:				
September	68	\$6,030	223	9,260
October	--	--	6,430	64,300
November:				
South Africa	--	--	6,230	53,600
Total	--	--	6,230	53,600
Year to date	14,100	390,000	47,800	545,000

-- Zero.

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

Source: U.S. Census Bureau.