

Mineral Industry Surveys

For information, contact:

Désirée E. Polyak, Vanadium Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4909, Fax: (703) 648-7757
E-mail: dpolyak@usgs.gov

Shonta E. Osborne (Data)
Telephone: (703) 648-7960
Fax: (703) 648-7975
E-mail: sosborne@usgs.gov

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

VANADIUM IN JUNE 2009

Reported domestic consumption of vanadium in June 2009 was slightly less than that of the previous month, and was about 11% less than that of June 2008, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 308 metric tons (t) at the beginning of 2009 and 238 t at the end of June.

According to Ryan's Notes (2009b), U.S. ferrovanadium (FeV) prices ranged from \$9.050 to \$9.467 per pound of vanadium content in June, as compared with \$8.417 to \$8.700 in May. European FeV prices ranged from \$22.139 to \$22.806 per kilogram in June, as compared with \$18.778 to \$19.528 in May. Vanadium pentoxide (V₂O₅) prices ranged from \$4.111 to

\$4.456 per pound in June, as compared with \$3.956 to \$4.300 in May.

Metallurg Vanadium Corp. was expected to close its Cambridge, OH, FeV plant for 6 weeks starting at the end of June owing to the downturn in the world financial markets. According to the company, the plant produces 1,800 metric tons per year of 50% to 60% FeV (Ryan's Notes, 2009a).

References Cited

- Ryan's Notes, 2009a, Ferroalloy notes: Ryan's Notes, v. 15, no. 26, June 29, p. 4.
Ryan's Notes, 2009b, [untitled]: Ryan's Notes, v. 15, no. 27, July 6, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2008		2009					
	Consumption	Stocks	May		June		January-June	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,030,000	231,000	334,000	204,000	335,000	192,000	1,990,000	192,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	817,000	76,400	59,700	46,900	56,600	45,300	358,000	45,300
Total	4,850,000	308,000	393,000	251,000	392,000	238,000	2,340,000	238,000

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

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

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

³Includes 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 USE¹

(Kilograms, contained vanadium)

	2008	2009		
		May	June	January-June
Steel:				
Carbon	760,000	53,800	47,100	290,000
High-strength low-alloy	1,540,000	130,000	128,000	772,000
Stainless and heat-resisting	116,000	5,110	14,200	39,700
Full alloy	2,000,000	155,000	156,000	945,000
Tool	151,000	34,700	34,700	208,000
Total steel	4,570,000	379,000	380,000	2,260,000
Superalloys	2,490	141	334	1,440
Miscellaneous and unspecified ²	275,000	14,500	11,400	87,500
Total consumption	4,850,000	393,000	392,000	2,340,000

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

²Includes 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 SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2008	1,110,000	\$2,110,000	3,620	\$198,000
2009:				
April	12,200	61,100	1,750	136,000
May	--	--	--	--
Year to date	248,000	840,000	2,190	287,000
Exports:				
2008	21,900,000	76,200,000	57,100	3,740,000
2009:				
April	510,000	1,160,000	6,550	231,000
May:				
Brazil	424	8,700	--	--
Canada	11,800	31,000	--	--
China	591	9,990	--	--
France	--	--	10	8,420
Germany	250	3,400	--	--
Mexico	643,000	1,080,000	--	--
United Kingdom	507	6,590	--	--
Total	656,000	1,140,000	10	8,420
Year to date	4,310,000	10,800,000	20,900	927,000

-- Zero.

¹Data 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 VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2008	2,800,000	\$159,000,000	3,700,000	\$115,000,000	144,000	\$4,320,000
2009:						
April	9,000	286,000	178,000	2,660,000	8,390	183,000
May:						
Austria	15,800	336,000	--	--	--	--
Canada	13,600	886,000	--	--	--	--
China	--	--	25,400	479,000	--	--
Germany	136	14,200	126	9,840	--	--
Korea, Republic of	4,810	218,000	--	--	--	--
South Africa	--	--	74,200	869,000	--	--
Taiwan	--	--	7,240	130,000	--	--
Total	34,300	1,450,000	107,000	1,490,000	--	--
Year to date	166,000	6,740,000	640,000	10,100,000	8,390	183,000
Exports:						
2008	281,000	12,600,000	249,000	5,650,000	1,040,000	11,300,000
2009:						
April	26,300	646,000	37,200	365,000	728	6,480
May:						
Austria	--	--	3,270	45,400	--	--
Brazil	11,400	213,000	4,990	59,000	7,130	63,400
Canada	7,610	152,000	--	--	1,080	11,300
China	32,700	541,000	--	--	--	--
Germany	--	--	1,150	16,800	--	--
Japan	81	4,820	--	--	--	--
Korea, Republic of	28,600	530,000	--	--	--	--
Mexico	90	6,230	--	--	--	--
Netherlands	63,800	1,050,000	--	--	20,000	261,000
Trinidad and Tobago	--	--	1,090	16,600	--	--
Total	144,000	2,490,000	10,500	138,000	28,200	336,000
Year to date	334,000	7,080,000	175,000	1,740,000	131,000	1,250,000

-- Zero.

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

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2008	1,040,000	\$18,000,000	601,000	\$795,000
2009:				
April	63,600	945,000	64,100	125,000
May:				
Canada	--	--	51,100	87,400
Mexico	81,800	1,730,000	--	--
United Kingdom	120	2,210	--	--
Total	81,900	1,730,000	51,100	87,400
Year to date	410,000	6,940,000	229,000	395,000

-- Zero.

¹Data 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 CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2008	2,160	\$119,000	187,000	\$4,230,000
2009:				
April	1,950	18,700	15,100	224,000
May:				
China	4,780	46,000	--	--
South Africa	--	--	22,500	284,000
United Kingdom	--	--	7,970	133,000
Total	4,780	46,000	30,400	417,000
Year to date	6,730	68,400	67,800	988,000

-- Zero.

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

Source: U.S. Census Bureau.