

Table 8.U.S. statistics for titanium. Units are in 1000 metric tons, unless otherwise noted. Blanks indicate no data available or the data were withheld.

year	Production Ilmenite Concentrate	Production Rutile Concentrate	Production Metal (Sponge) ¹	Production Metal (Ingot)	Production Pigment ² (Gross)	Imports Ilmenite ³ (Concentrate + Slag)	Imports Rutile Concentrate	Imports ⁴ Metal Ingot
1927						15.3		
1928								
1929						22.6		
1930						22.6		
1931						301		
1932						33.8		
1933						39	0.07	
1934						72.4	0.01	
1935						125.4	0.19	
1936						140.1	0.46	
1937						17.2	0.61	
1938						212.2	0.36	
1939	13.2					260.3	0.73	
1940	18.8	2.6				203.2	2.00	
1941	21.1	2.8				155.1	5.71	
1942	70.0	2.4				9.4	9.52	
1943	184.7	3.6				70.8	12.97	
1944	252.3	6.3				98.9	9.07	
1945	279.9	6.5				190.6	9.61	
1946	256.2	6.8				219.8	5.26	
1947	305.3	7.8				273.3	11.43	
1948	348.1	6.7	0.0			219.6	7.98	
1949	365.0	10.9	0.0			294.0	3.81	
1950	424.9	6.8	0.1		271	196.4	4.17	
1951	136.1	6.5	0.4		290	171.5	9.98	
1952	479.5	6.5	1.0		285	166.9	18.14	
1953	466.0	6.2	2.0		303	259.9	14.51	
1954	496.9	6.6	4.9		328	249.4	13.61	
1955	528.9	8.3	6.7		371	320.5	18.14	
1956	621.4	11.0	13.2		433	325.9	44.44	
1957	686.9	9.6	15.6		414	417.6	77.10	
1958	511.1	6.7	4.2		366	315.7	33.56	
1959	576.0	8.6	3.5		459	337.1	20.86	
1960	713.4	8.0	4.8		413	240.9	26.30	
1961	709.8	8.2	6.1		456	187.9	24.49	
1962	732.8	9.1	6.1		475	150.9	32.65	
1963	805.9	10.9	7.1		471	182.2	65.30	
1964	908.2	7.3			507	157.1	100.7	
1965	879.5				523	150.8	137.9	
1966	875.8				539	169.2	137.0	
1967	848.3				535	188.6	151.5	
1968	887.7				566	302	158	
1969	844.8				603	237	186	

Table 8. Cont.

year	Production Concentrate Ilmenite	Production Concentrate Rutile	Production metal (Sponge)	Production Metal (Ingot)	Production Pigment (Gross)	Imports Ilmenite Concentrate	Imports Rutile (Total)	Imports Metal Ingot
1967	848.3				535	188.6	151.5	
1968	887.7				566	302	158	
1969	844.8				603	237	186	
1970	787.4			22.1	594	210	220	
1971	619.7			16.7	615	164	196	
1972	615.0			18.4	629	284	211	
1973	704.0	8.5		26.2	712	278	239	
1974	675.5	5.8		32.8	714	289	251	
1975	650.7			23.2	547	304	199	
1976	591.9			19.6	647	308	203	
1977	579.2			23.9	623	440	158	
1978	535.0			28.5	636	415	222	0.51
1979	580.0		19.1	33.9	673	268	266	0.31
1980	505.0		20.4	38.9	660	501	252	0.17
1981	492.0		24.0	41.9	691	458	242	0.22
1982	238.9		14.2	24.1	598	541	204	0.19
1983			12.7	24.0	690	361	227	0.07
1984			22.1	36.3	757	562	271	0.16
1985			21.1	32.1	783	725	260	0.16
1986			15.8	31.8	844	751	280	0.10
1987			17.8	33.8	879	716	301	0.07
1988			22.3	38.9	927	829	331	0.24
1989			25.2	41.3	1,007	798	346	0.19
1990			24.7	36.8	979	720	275	0.16
1991			13.4	24.9	992	622	240	
1992				28.1	1140	832	317	
1993				27.9	1160	777	371	
1994				29.5	1250	808	332	
1995				29.5	1250	861	295	
1996				39.8	1230	939	305	2.6
1997				51.4	1340	952	311	5.4
1998				55.9	1327	732	365	
1999				52.5	1355	750	305	

1. Calculated sponge production (1979-1982) equals sponge consumption plus sponge exports minus sponge imports and adjustments for Government and industry stock changes.
2. Prior to 1980 pigment was reported as Ti content.
3. Method of reporting ilmenite statistics changed in 1998-1999.
4. Because of the implementation of the Harmonized Tariff System in Jan. 1989, import categories for 1989 and 1990 are not necessarily comparable with those of recent years.
5. Excludes sponge imported by Government Services Administration for the national stockpile (1984-1985).
6. Imports of metal scrap (1973-1975) may include unwrought titanium.
7. May include material classified as titanium oxide.
8. Excludes ilmenite used in the production of synthetic rutile.
9. Through 1975 includes only natural rutile; more recently includes synthetic rutile.

Table 8. Cont.

year	Imports Metal Sponge ⁵	Imports Metal Scrap ⁶	Import TiO ₂ Pigment ⁷	Exports of Metal (ingot, slab etc.)	Exports of TiO ₂ Pigment ⁶	Consumption Ilmenite (Gross) ³ ₈	Consumption Rutile ⁹
1927							
1928							
1929							
1930							
1931							
1932							
1933							
1934							
1935							
1936							
1937							
1938							
1939							
1940							
1941						249.4	5.8
1942				0.38		234.0	9.6
1943				0.69		274.8	16.0
1944				0.72		327.4	13.4
1945				0.67		345.6	8.9
1946				0.50		366.4	6.4
1947				0.46		435.4	7.0
1948				0.44		512.5	9.3
1949				0.16		463.5	10.8
1950				0.16		615.9	10.6
1951				0.16		646.7	15.6
1952				0.69		641.2	16.6
1953						690.2	18.3
1954	0.18			0.04		708.4	18.8
1955	0.51			0.01		794.5	26.0
1956	1.86			0.01		932.4	42.5
1957	3.20			0.06		868.0	48.4
1958	1.88			0.09		770.0	19.7
1959	1.42			0.45		962.3	21.5
1960	2.02			0.80		897.0	21.9
1961	2.26			0.80		960.5	25.4
1962	0.84			0.74		982.3	28.8
1963	1.33			1.14		945.1	31.9
1964	1.87			1.65		1005.9	72.0
1965	2.84			1.93		972.3	106.5
1966	5.15			1.57		993.2	123.3
1967	6.51			1.30		945.1	139.2
1968	3.04			3.63	27.4	999	145
1969	5.21			4.08	22.2	1035	168

Table 8. Cont.

year	Imports Metal Sponge ⁴	Imports Metal Scrap ³	Import TiO ₂ Pigment ⁶	Exports of metal (ingot, slab etc.)	Exports of TiO ₂ pigment ⁵	Consumption Ilmenite (Gross) ^{2,7}	Consumption Rutile ⁸
1967	6.51			1.30		945.1	139.2
1968	3.04			3.63	27.4	999	145
1969	5.21			4.08	22.2	1035	168
1970	5.38	0.56	54.6	4.21	23.76	999.3	171.6
1971	2.54	0.20	38.9	1.94	24.28	945.6	204.6
1972	3.41	0.38	78.4	3.69	9.38	953.0	220.2
1973	4.69	1.33	54.8	4.43	18.84	988.4	251.2
1974	6.32	2.61	31.7	5.85	27.56	1006.2	265.5
1975	3.80	0.80	23.5	5.65	14.34	812.6	210.0
1976	1.61	1.69	62.4	6.54	18.65	931.0	215.7
1977	2.17	4.08	104.2	4.03	14.72	921.7	168.2
1978	1.34	3.44	106.8	6.25	34.30	835.6	238.8
1979	2.26	5.57	95.2	6.47	44.79	848.9	284.6
1980	4.33	3.75	88.5	6.07	38.22	934.6	270.0
1981	5.89	3.44	113.3	6.84	55.43	1006.0	258.9
1982	1.23	1.16	126.0	5.91	66.60	733.7	216.8
1983	1.09	1.43	158.6	6.16	83.19	813.7	240.9
1984	2.42	1.68	175.5	5.76	96.27	892.9	288.4
1985	1.56	1.94	178.0	8.22	92.49	914.5	276.9
1986	1.48	2.16	183.9	7.79	101.81	982.1	298.6
1987	0.92	2.22	174.2	7.64	108.89	995.7	320.5
1988	1.36	4.24	185.5	8.15	118.42	979.0	352.4
1989	0.90	5.31	166.3	9.49	212.20	1074.4	366.1
1990	1.09	3.04	147.6	4.07	202.29	1079.5	369.5
1991	0.61	2.67	166		211	1079.0	369.0
1992	0.68	6.26	169		270	1224.0	461.0
1993	2.16	5.52	172	7.9	290	1240.0	465.0
1994	6.47	5.87	176	9.7	352		510.0
1995	7.56	11.1	183		342	1410.0	
1996	10.1	16.4	167		332	1400.0	
1997	16.1	10.7	194		405	1520.0	

Table 8. Cont.

year	Consumption (Sponge + Ingot + Scrap)	Consumption TiO ₂ Pigment	World Production (Ilmenite)	World Production (Rutile)	World Production (Slag)
1927			10.9		
1928			3.6		
1929			43.5		
1930			11.8		
1931			39.9		
1932			59.0		
1933			70.7		
1934			96.1		
1935			2.7		
1936			0.0		
1937			255.8		
1938			303.8		
1939			76.2		
1940			322.0	0.9	
1941			213.1	1.8	
1942			181.4	5.4	
1943			325.6	11.8	
1944			418.1	15.4	
1945			463.5	18.1	
1946			453.5	20.0	
1947			0.0	17.2	
1948			646.7	15.4	
1949			742.8	0.0	
1950			715.6	20.9	
1951			810.0	22.7	
1952			810.0	22.7	
1953			995.0	38.1	
1954			1120.1	42.6	
1955			1274.3	45.4	
1956			1625.3	52.6	
1957			1746.0	68.9	
1958			1551.0	110.7	
1959			1757.8	96.1	
1960			2028.1	103.4	
1961			2119.7	117.0	
1962			2081.6	137.0	
1963			1987.2	201.4	
1964			2348.2	195.0	
1965			2465.2	222.2	
1966			2615.8	253.1	
1967			2684.7	288.4	
1968			2923.0	302.1	
1969			3213.3	396.4	

Table 8. Cont.

year	Consumption (Spong + Ingot + Scrap)	Consumption TiO ₂ Pigment	World Production (Illmenite)	World Production (Rutile)	World Production (Slag)
1967			2684.7	288.4	
1968			2923.0	302.1	
1969			3213.3	396.4	
1970	43.0	641.2	3576.2	417.3	
1971	32.1	666.7	3361.2	383.7	
1972	36.6	691.8	3253.2	323.0	
1973	50.5	767.0	2706.2	331.1	859
1974	62.6	665.7	2810.5	331.1	849
1975	45.7	542.7	2589.1	351.1	754
1976	39.5	684.0	3166.1	403.7	817
1977	47.5	712.1	3314.0	345.6	693
1978	57.1	727.3	3514.5	302.1	941
1979	68.8	759.4	3512.7	360.2	764
1980	77.8	683.5	3646.0	422.8	1313
1981	81.8	731.2	3647.9	362.0	1245
1982	48.5	672.3	3029.1	338.4	1157
1983	47.9	773.8	2674.4	310.3	1160
1984	72.0	831.2	3086.3	352.0	1260
1985	64.7	893.2	3314.9	364.7	1410
1986	63.3	908.1	3420	394	1285
1987	66.6	966.2	3937	439	1575
1988	74.6	991.5	4035	434	1725
1989	73.9	947.3	4236	454	1765
1990	73.5	925.4	4070	481	1600
1991	49.0	936	3410	458	1510
1992	52.9	1000	3580	442	1640
1993	56.1	1030	3580	464	1550
1994	57.2	1100	3950	459	1510
1995	72.6	1050	3970	416	1810
1996	93.0	1070	3930	365	1830
1997	101.0	1130	4020	415	1840
1998	99.8	1150	3860	406	
1999	70.8	1090	3650	361	