IRON OXIDE PIGMENTS STATISTICS[1]
U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) iron oxides unless otherwise noted]
Last modification: November 1, 2007

Year	Production	Imports	Exports	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World production
1900	38,700	4,980		44,000	17	330	
1901	30,600	5,100		36,000	21	410	
1902	32,900	6,100		39,000	23	430	
1903	34,700	6,310		41,000	16	290	
1904	40,100	5,900		46,000	14	250	
1905	37,300	6,790		44,000	14	250	
1906	40,300	7,410		48,000	14	250	
1907	40,300	7,980		48,000	15	260	
1908	41,100	6,090		47,000	13	230	
1909	31,300	8,720		40,000	18	330	
1910	38,200	8,660		47,000	16	280	
1911	34,800	7,830		43,000	16	280	
1912	40,300	10,900		51,000	15	250	
1913	44,000	11,400		55,000	13	210	
1914	41,800	17,100		59,000	15	240	
1915				56,000	18	290	
1916				58,000	20	300	
1917				59,000	23	290	
1918				60,000	25	270	
1919				61,000	28	260	
1920				63,000	31	250	
1921				64,000	33	300	
1922				65,000	36	350	
1923				66,000	38	360	
1924				68,000	41	390	
1925				69,000	44	410	
1926				70,000	46	420	
1927				71,000	49	460	
1928				73,000	51	490	
1929				74,000	54	510	
1930				75,000	56	550	
1931				76,000	59	630	
1932				78,000	62	740	
1933				79,000	64	800	
1934				80,000	67	820	
1935				81,000	69	820	
1936				83,000	72	840	
1937				84,000	75	850	
1938				85,000	77	890	
1939		18,500	4,950	86,000	80	940	
1940		14,000	4,720	88,000	82	950	
1941		8,100	4,480	89,000	85	940	
1942	88,300	3,990	3,290	89,000	88	876	
1943	90,900	1,320	3,960	88,300	88	824	
1944	88,000	3,050	4,680	86,400	90	834	
1945	91,600	5,500	4,730	92,400	94	849	
1946	104,000	9,380	5,520	108,000	93	780	
1947	105,000	7,070	6,910	105,000	105	767	
1948	101,000	4,470	6,290	99,200	107	724	
1949	94,600	3,750	5,850	92,500	110	753	
1950	117,000	8,320	5,050	121,000	122	825	
1951	115,000	12,700	4,220	123,000	126	790	

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Year	Production	Imports	Exports	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World production
1952	95,500	7,980	3,510	99,900	135	830	
1953	98,300	9,980	3,810	105,000	139	849	
1954	88,900	9,710	3,270	95,300	150	909	
1955	105,000	12,700	4,260	113,000	159	967	
1956	103,000	11,900	4,630	111,000	159	953	
1957	95,200	11,900	3,360	104,000	166	963	
1958	89,300	10,600	3,540	96,300	170	959	
1959	107,000	13,400	3,900	116,000	171	958	
1960	96,200	13,200	3,900	105,000	177	975	
1961	96,600	9,530	2,900	103,000	183	998	
1962	103,000	11,900	3,450	111,000	184	993	
1963	108,000	12,400	3,810	116,000	188	1,000	
1964	108,000	14,800	4,630	119,000	201	1,060	
1965	116,000	16,200	4,260	128,000	195	1,010	
1966	119,000	22,300	4,350	137,000	199	1,000	
1967	116,000	21,200	2,810	134,000	219	1,070	
1968	120,000	27,200	2,720	145,000	238	1,110	
1969	130,000	29,900	3,630	156,000	232	1,030	
1970	113,000	29,700	4,170	138,000	238	1,000	
1971	116,000	33,100	3,610	146,000	249	1,000	
1972	138,000	42,900	3,870	177,000	255	994	
1973	135,000	46,400	8,970	172,000	306	1,120	
1974	134,000	49,200	8,770	174,000	421	1,390	
1975	95,100	25,400	7,970	113,000	460	1,390	
1976	123,000	45,500	5,270	163,000	480	1,380	286,000
1977	128,000	53,300	5,890	175,000	522	1,400	295,000
1978	138,000	64,000	6,410	196,000	526	1,320	292,000
1979	142,000	50,200	4,400	187,000	618	1,390	322,000
1980	114,000	35,800	4,580	145,000	682	1,350	254,000
1981	116,000	36,000	4,510	148,000	753	1,350	234,000
1982	95,200	23,500	8,220	110,000	826	1,400	225,000
1983	112,000	27,900	11,500	128,000	914	1,500	229,000
1984	118,000	34,700	29,400	123,000	947	1,490	258,000
1985	115,000	36,100	27,000	124,000	961	1,460	251,000
1986	116,000	33,400	26,200	124,000	987	1,470	229,000
1987	124,000	38,400	20,200	143,000	966	1,390	281,000
1988	127,000	38,900	22,000	144,000	975	1,340	281,000
1989	128,000	36,700	9,970	154,000	1,000	1,310	321,000
1990	125,000	34,100	9,540	150,000	1,110	1,380	258,000
1991	117,000	34,700	20,600	131,000	1,140	1,360	243,000
1992	121,000	45,100	21,100	145,000	1,120	1,300	244,000
1993	126,000	43,600	22,400	147,000	1,160	1,310	209,000
1994	139,000	51,400	21,300	169,000	1,070	1,180	239,000
1995	151,000	59,300	17,500	193,000	1,130	1,210	337,000
1996	163,000	59,600	16,000	207,000	1,150	1,190	403,000
1997	176,000	66,700	16,600	226,000	1,060	1,080	466,000
1998	180,000	63,800	14,600	229,000	1,050	1,050	533,000
1999	183,000	80,800	13,800	250,000	980	959	559,000
2000	154,000	91,300	9,640	236,000	892	844	511,000
2001	135,000	89,900	9,100	216,000	920	847	598,000
2002	115,000	132,000	6,270	241,000	864	783	635,000
2003	90,000	140,000	4,500	226,000	807	715	646,000

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Year	Production	Imports	Exports	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World production
2004	85,000	170,000	3,120	252,000	757	653	604,000
2005	90,000	193,000	2,220	281,000	825	689	610,000
2006	70,000	199,000	3,100	266,000	849	686	610,000

[1]Compiled by T.D. Kelly (retired) and M.J. Potter.
Data are calculated, estimated, or reported. See notes for more information.

Iron Oxide Pigments Worksheet Notes

Data Sources
The sources of data for the iron oxide pigments worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

Production
Production statistics represent ocher, umber, sienna, and metallic paints from the MR for the years 1900–14. For the years 1942–2006, production statistics represent the category, finished products sold, from the MYB. Production statistics were not available for the years 1915–41.

Imports
Import statistics represent ocher, umber, and sienna imported for the years 1900–14. For the years 1939–2006, import statistics represent the sum of natural and synthetic pigments imported for consumption. Data are reported in the MYB. Import statistics were not available for the years 1915–38.

Exports
Export statistics represent the sum of natural and synthetic pigments. Statistics were not available for the years 1900–38. For the years 1939–2006, data are reported in the MYB.

Apparent Consumption
For the years 1900–14, apparent consumption was estimated as equal to production plus imports. For the years 1915–41, apparent consumption was estimated by linear regression using the data from 1900–14 (estimated previously), for those years (1900–41), two significant figures are reported for apparent consumption. Data for the years 1942–2006 were estimated by a direct calculation from production, imports, and exports using the following formula.

APPARENT CONSUMPTION = PRODUCTION + IMPORTS – EXPORTS.

Unit Value
Unit value is defined as the value of 1 metric ton (t) of iron oxide pigments apparent consumption. Unit value was estimated with the weighted average of production and import tonnage and value for the years 1900–16 and 1942–2006; production and import data are reported in the MYB. For the years 1915–41, unit value was estimated by stepwise linear interpolation. Two significant figures were reported for these years.

Unit Value (98$/t)
The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production
World production statistics represent the world mine production of natural iron oxide pigments. Data are not available for the years 1900–75. Data for the years 1976–2006 data are reported in the MYB. For the years 1994–95 and 2002–06, U.S. mine production was withheld because the data were proprietary.

References
U.S. Bureau of Mines, 1940–96, Minerals Yearbook, 1939–94.
U.S. Geological Survey, 1901–15, Mineral Resources of the United States, 1900–14.
U.S. Geological Survey, 1997–2007, Minerals Yearbook, v. I, 1995–2006.

Recommended Citation Format:
U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, in Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

For more information, please contact:

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