# $\begin{array}{c} \textbf{SODIUM SULFATE STATISTICS}^1 \\ \textbf{U.S. GEOLOGICAL SURVEY} \end{array}$

[All values in metric tons (t) gross weight unless otherwise noted]

Last modification: October 16, 2012

	Primary				Apparent	Unit value	Unit value	World
Year	production	Imports	Exports	Stocks	consumption	(\$/t)	(98\$/t)	production
1920	13,500	NA	NA	NA	13,500	16.4	133	NA
1921	4,450	NA	NA	NA	4,450	1.91	17.40	NA
1922	4,550	NA	NA	NA	4,550	7.95	77.10	NA
1923	9,140	NA	NA	NA	9,140	10.90	104	NA
1924	14,700	NA	NA	NA	14,700	11.90	113	NA
1925	9,020	NA	NA	NA	9,020	9.36	86.60	NA
1926	17,800	NA	NA	NA	17,800	9.37	86.00	NA
1927	20,900	NA	NA	NA	20,900	8.07	75.40	NA
1928	5,970	4,650	NA	NA	10,600	7.12	67.80	NA
1929	6,840	89,200	1,510	NA	94,500	6.02	57.40	NA
1930	29,600	73,900	4,020	NA	99,400	6.97	68.30	NA
1931	29,500	76,200	4,220	NA	101,000	6.72	71.90	NA
1932	29,200	63,800	1,300	NA	91,700	7.20	85.90	NA
1933	42,200	100,000	NA	NA	142,000	5.81	73.10	NA
1934	15,100	89,500	NA	NA	105,000	9.81	120	NA
1935	189,000	106,000	NA	NA	294,000	9.32	111	NA
1936	46,800	149,000	NA	NA	195,000	7.20	84.70	NA
1937	244,000	215,000	NA	NA	459,000	10.7	121	NA
1938	72,800	136,000	NA	NA	209,000	8.20	95.00	NA
1939	124,000	141,000	NA	NA	265,000	8.27	97.10	NA
1940	168,000	66,200	NA	NA	234,000	9.11	106	NA
1941	682,000	68,900	NA	NA	751,000	9.11	101	NA
1942	765,000	85,300	NA	NA	850,000	10.30	103	NA
1943	775,000	29,900	NA	NA	805,000	10.80	102	NA
1944	786,000	28,100	NA	NA	814,000	10.60	98.50	NA
1945	757,000	18,100	NA	NA	776,000	10.30	93.60	NA
1946	742,000	20,000	NA	NA	762,000	9.44	78.70	NA
1947	934,000	44,500	NA	NA	979,000	9.39	68.50	NA
1948	927,000	27,200	NA	NA	954,000	14.30	96.50	NA
1949	754,000	19,100	12,700	NA	760,000	17.60	121	NA
1950	845,000	60,800	15,400	NA	891,000	16.20	109	NA
1951	1,050,000	73,500	23,600	NA	1,100,000	13.00	81.50	NA
1952	946,000	50,800	25,400	NA	972,000	14.10	86.40	NA
1953	1,050,000	55,300	25,400	NA	1,080,000	15.00	91.20	NA
1954	917,000	108,000	22,700	NA	1,000,000	14.90	90.00	NA
1955	1,060,000	113,000	22,700	NA	1,150,000	17.20	105	NA
1956	1,070,000	93,400	27,200	NA	1,140,000	20.80	125	NA
1957	1,010,000	68,000	21,800	NA	1,060,000	21.30	123	NA
1958	908,000	88,000	18,100	NA	978,000	21.80	123	NA
1959	1,040,000	111,000	20,000	NA	1,130,000	21.30	119	NA
1960	1,010,000	151,000	28,100	NA	1,130,000	21.00	116	NA
1961	1,060,000	178,000	29,000	NA	1,210,000	21.30	116	NA
1962	1,080,000	171,000	46,300	NA	1,210,000	22.00	118	NA
1963	1,120,000	145,000	40,800	NA	1,220,000	21.90	116	NA
1964	1,190,000	263,000	39,900	NA	1,420,000	21.30	112	NA
1965	1,270,000	248,000	11,800	NA	1,510,000	21.10	109	NA
1966	1,310,000	215,000	25,400	NA	1,500,000	19.60	98.5	NA
1967	1,240,000	262,000	25,400	NA	1,470,000	19.40	94.7	NA
1968	1,350,000	277,000	50,800	NA	1,570,000	18.50	87.0	NA
1969	1,340,000	259,000	82,600	43,000	1,510,000	20.00	89.1	NA
1970	1,250,000	244,000	49,900	31,000	1,440,000	20.20	84.6	NA

# SODIUM SULFATE STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) gross weight unless otherwise noted]

Last modification: October 16, 2012

	Primary				Apparent	Unit value	Unit value	World
Year	production	Imports	Exports	Stocks	consumption	( <b>\$/t</b> )	(98\$/t)	production
1971	1,230,000	243,000	59,900	77,100	1,410,000	17.60	71.0	NA
1972	1,200,000	271,000	26,300	80,700	1,450,000	17.90	69.9	3,760,000
1973	1,300,000	290,000	40,800	14,500	1,620,000	19.00	69.8	4,030,000
1974	1,220,000	340,000	46,300	22,700	1,510,000	26.40	87.4	4,130,000
1975	1,110,000	259,000	69,900	28,100	1,300,000	45.70	139	4,440,000
1976	1,120,000	287,000	51,700	50,800	1,330,000	54.30	155	4,460,000
1977	1,090,000	202,000	39,000	84,400	1,220,000	50.80	137	4,090,000
1978	1,060,000	123,000	76,200	51,700	1,140,000	50.80	127	5,240,000
1979	1,020,000	171,000	92,500	26,300	1,120,000	61.40	138	5,500,000
1980	1,030,000	209,000	117,000	29,900	1,120,000	68.80	136	4,530,000
1981	1,010,000	249,000	112,000	59,900	1,110,000	79.30	142	4,600,000
1982	784,000	357,000	101,000	27,200	1,070,000	91.50	155	4,380,000
1983	829,000	311,000	82,600	43,500	1,040,000	103	168	4,310,000
1984	817,000	240,000	68,900	53,500	979,000	102	159	4,400,000
1985	736,000	177,000	108,000	28,100	830,000	102	154	4,490,000
1986	763,000	171,000	101,000	65,300	796,000	94.90	141	4,590,000
1987	725,000	125,000	111,000	50,000	754,000	97.30	140	4,900,000
1988	743,000	136,000	77,000	54,000	798,000	86.90	120	4,860,000
1989	685,000	173,000	62,000	24,000	826,000	91.60	120	4,870,000
1990	713,000	162,000	62,000	39,000	798,000	90.10	112	5,000,000
1991	720,000	157,000	103,000	35,000	778,000	88.60	106	4,840,000
1992	553,000	158,000	155,000	47,000	544,000	91.90	107	4,300,000
1993	537,000	163,000	89,000	42,000	616,000	76.50	86.40	4,980,000
1994	591,000	190,000	65,000	34,000	724,000	81.20	89.30	5,180,000
1995	645,000	206,000	66,000	16,000	803,000	84.50	90.40	5,310,000
1996	602,000	177,000	85,700	19,000	690,000	88.90	92.40	5,370,000
1997	640,000	150,000	86,300	26,000	697,000	98.90	101	5,520,000
1998	571,000	110,000	90,000	33,000	591,000	126	126	5,600,000
1999	599,000	87,000	137,000	W	549,000	126	123	5,750,000
2000	462,000	73,000	165,000	W	370,000	126	119	5,750,000
2001	512,000	34,000	191,000	W	355,000	126	116	5,750,000
2002	500,000	40,000	100,000	W	440,000	126	114	5,750,000
2003	466,000	45,000	154,000	W	357,000	148	131	5,750,000
2004	467,000	49,000	138,000	W	378,000	148	127	5,750,000
2005	309,000	75,000	149,000	W	235,000	148		
2006	290,000	61,000	158,000	W	193,000	148	119	5,750,000
2007	312,000	43,000	101,000	W	254,000	148	116	
2008	319,000	69,000	107,000	W	281,000	148	112	5,750,000
2009	260,000	77,000	140,000	W	197,000	148	112	6,000,000
2010	297,000	77,000	196,000	W	178,000	148	111	6,000,000
2011	NA	85,000	199,000	W	NA ·	150	109	8,000,000

NA Not available. W Withheld to avoid disclosing company proprietary data.

Data are calculated, estimated, or reported. See notes for more information.

Data collection for total sodium sulfate production was terminated by the U.S. Census Bureau in mid-2011.

Because alternative sources for sodium sulfate data are no longer available, sodium sulfate coverage by the USGS will be discontinued with the 2011 data.

<sup>&</sup>lt;sup>1</sup>Compiled by K.E. Porter (retired) and D.S. Kostick.(retired).

## **Sodium Sulfate Worksheet Notes**

### **Data Sources**

The sources of data for the sodium sulfate worksheet are the mineral statistics publications of the U.S. Bureau of Mines (USBM) and the U.S. Geological Survey (USGS)—Minerals Yearbook (MYB) and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). Natural sodium sulfate production and stock data were collected by USBM and USGS. The U.S. Census Bureau collected natural and synthetic sodium sulfate production, import, and export data. The years of publication and corresponding years of data coverage are listed in the references section below.

## **Primary Production**

Natural sodium sulfate production data were first reported in the 1932–33 MYB with data back to 1920. First mention and data reporting for manufactured (synthetic) sodium compounds from chemical works were in the 1937 MYB with regular reporting of data for manufactured compounds starting in the 1945 MYB. Reporting of natural sodium sulfate production data ended after 1997 because the data were proprietary, resulting in the termination of the MYB chapter. Combined natural and synthetic sodium sulfate production data obtained from the U.S. Census Bureau continued to be reported in the MCS.

#### **Imports**

Import data were first reported in the 1932–33 MYB with data back to 1928 and initially included only Glauber's salt and anhydrous sodium sulfate. Data for crude sodium sulfate (salt cake) were reported, in addition to the above products, starting with the 1934 MYB. Sodium sulfate import data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate import data continued in the MCS.

## **Exports**

Export data were first reported in the 1932–33 MYB with data for 1929–32. Export data for 1928 were not reported separately. Exports were small and not separately classified for 1933–48. Sodium sulfate export data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate export data continued in the MCS.

#### Stocks

Producer stock data were first reported in the 1976 MCS with data back to 1971. Stock data were withheld since 1998 in the MCS because the data were proprietary.

## **Apparent Consumption**

Apparent consumption is defined as follows:

APPARENT CONSUMPTION = PRIMARY PRODUCTION + IMPORTS – EXPORTS ± STOCK CHANGES.

Both natural and synthetic sodium sulfates are included in estimating the apparent consumption.

### Unit Value (\$/t)

Unit value is the value in actual U.S. dollars of 1 metric ton (t) of sodium sulfate apparent consumption. Unit value is estimated by dividing the value of production, imports, and exports by the quantity of production, imports, and exports, respectively, of sodium sulfate as reported in the MYB. Synthetic sodium sulfate is assumed to have the same unit value as natural sodium sulfate for the purpose of valuing the apparent consumption. Sodium sulfate production, import, and export quantity and value data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate production, import, and export quantity data continued in the MCS, but value data were not reported. Unit value data from 1998 to the most recent year is based on the price for bulk, f.o.b., 100 percent sodium sulfate, east coast data from the MCS.

## 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**

Total world production data (natural and synthetic sodium sulfate) were reported in the MYB starting in 1974 with data back to 1972. Sodium sulfate world production data were not reported in the MYB after 1997 because the MYB chapter was terminated. Natural and synthetic sodium sulfate world production data were reported for 1998 to the most recent year in the MCS.

#### References

- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Bureau of Mines, 1962–77, Commodity Data Summaries, 1962–77.
- U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.

- U.S. Geological Survey, 1995-present, Minerals Yearbook, v. I. (Available via http://minerals.usgs.gov/minerals.)
- U.S. Geological Survey, 1997–most recent, Mineral Commodity Summaries 1997–most recent. (Available via http://minerals.usgs.gov/minerals.)
- U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

## **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, accessed [date], at http://pubs.usgs.gov/ds/2005/140/.

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