

Mineral Industry Surveys

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SODA ASH IN APRIL 2023

In April, soda ash production was 906,000 metric tons (t), a 4% increase compared with the previous month's production, and a 6% increase compared with that of April 2022 (tables 1 and 4). For the first four months of 2023, soda ash production was 3.49 million metric tons (Mt), 5% less than the revised production for the first four months 2022. Ending stocks in April were 250,000 t, 8% more than the ending stocks from the preceding month.

Wyoming trona production in April 2023 was 1.34 Mt, a 12% decrease compared with the revised trona production in March 2023 but 15% more than the total in April 2022. For the first four months of 2023, trona production was 5.44 Mt, 5% less than the amount for same period of 2022 (table 1).

Exports of soda ash decreased by 14% in April 2023 to 448,000 t, compared with those in March 2023 and 27% less than those in April 2022 (tables 2, 4). For the first four months of 2023, exports were 2.12 Mt, essentially unchanged compared with the amount for the same period of 2022 (table 1). Imports of soda ash in April 2023 were 468 t compared with 785 t in March 2023. Soda ash import tonnages can differ significantly from month to month, but generally are much smaller than soda ash export tonnages (tables 3, 4).

Apparent consumption for April 2023 was 439,000 t, 4% more than the total for March 2023 and 54% more than the total for April 2022. For the first four months of 2023, apparent consumption was 1.48 Mt, 7% less than the revised estimated total for the same period of 2022 (table 4). Apparent consumption can change significantly from month to month mostly owing to variation in the quantity of exports but usually stabilizes over the course of the year (table 4).

Table 5 provides reported U.S. soda ash consumption statistics for the first quarter of 2023. Reported consumption for the first quarter was 1.21 Mt, 3% more than that reported consumption for the first quarter of 2022. During the first quarter, 551,000 t (46%) went to glassmaking and 313,000 t (26%) was consumed in the production of chemicals.

All percentages in this report were calculated using unrounded data.

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TABLE 1
SALIENT SODA ASH STATISTICS¹

(Thousand metric tons)

Period	Soda ash		Wyoming trona production
	Production ²	Stocks, end of period	
2022:			
January-April	3,670 ^r	236	5,740
April	851	236	1,160
May	944	260	1,470
June	895	227	1,500
July	992	308	1,490
August	947	237	1,540
September	805	236	1,260
October	1,030	298	1,530
November	1,010	346	1,440
December	968	364	1,520
January-December	11,300	364	17,500
2023:			
January	884	303	1,240
February	831	309	1,340
March	868	231	1,520 ^r
April	906	250	1,340
January-April	3,490	250	5,440

^rRevised.

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

²Production data include soda ash equivalent from soda liquors only. Soda ash equivalent from mine water is not included. Soda liquors are withheld to avoid disclosing company proprietary data.

TABLE 2
U.S. EXPORTS OF SODA ASH BY COUNTRY OR LOCALITY, IN 2023¹

(Metric tons unless otherwise specified)

Country or locality	January	February	March	Quantity	April		January–April		
					Value ² (thousand dollars)	Unit value	Quantity	Percent of total quantity	Value ² (thousand dollars)
Argentina	17,000	17,500	16,500	30,100	13,200	\$437	81,100	4	30,000
Australia	28,000	--	35,000	9	3	333	63,000	3	24,500
Brazil	122,000	32,800	59,300	24,000	6,860	286	238,000	11	85,500
Canada	15,500	18,300	16,800	16,600	4,270	257	67,200	3	17,600
Chile	38,100	82,100	64,900	47,300	15,500	327	232,000	11	69,400
China	14	4,800	61,900	--	--	--	66,700	3	14,500
Colombia	18,300	40,300	11,900	500	212	425	70,900	3	22,200
India	31,100	3,050	1,920	5,110	1,580	310	41,100	2	12,100
Indonesia	22,500	53,200	13,700	55,200	18,900	343	145,000	7	51,300
Japan	15,500	22,700	10,100	4,800	1,660	346	53,100	3	20,100
Korea, Republic of	15,000	32,000	10,900	7,220	2,430	337	65,100	3	21,900
Malaysia	19,800	22,200	26,800	--	--	--	68,700	3	22,600
Mexico	133,000	121,000	153,000	142,000	39,300	277	549,000	26	147,000
Peru	7,500	11,000	5,250	17,300	6,030	348	41,100	2	14,400
Taiwan	13,000	15,000	14,000	221	66	299	42,200	2	15,100
Thailand	28,500	15,500	10,200	24,100	7,750	322	78,200	4	27,800
United Arab Emirates	12,000	676	27	676	203	301	13,300	1	3,120
Vietnam	14,800	69,200	2,500	59,900	16,700	280	146,000	7	46,600
Other	25,600	11,800	8,150	13,400	4,850	361	58,900	3	17,800
Total	577,000	573,000	523,000	448,000	140,000	311	2,120,000	100	664,000

-- Zero.

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

²Free alongside ship values at U.S. ports.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS OF SODA ASH BY COUNTRY OR LOCALITY, IN 2023¹

(Metric tons unless otherwise specified)

Country or locality	January	February	March	Quantity	April		January–April		
					Value ² (thousand dollars)	Unit value	Quantity	Percent of total quantity	Value ² (thousand dollars)
Canada	173	175	239	167	17	\$99	754	29	121
France	20	241	139	100	156	1,560	499	19	757
Germany	80	51	2	(3)	11	121	133	5	322
India	56	30	6	26	26	1,010	118	4	141
Italy	72	72	60	72	56	778	276	10	254
Japan	5	1	20	2	12	6,000	28	1	151
Mexico	98	116	200	20	45	2,250	433	16	265
United Kingdom	89	71	72	52	55	1,070	283	11	297
Other	10	20	48	29	36	1,260	106	4	130
Total	603	775	785	468	414	885	2,630	100	2,440

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

²Cost, insurance, and freight values at U.S. ports.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. APPARENT CONSUMPTION OF SODA ASH¹

(Metric tons)

Period	Production	Exports	Imports	Net stock		Apparent consumption ²
				Increase	Decrease	
2022:						
January–December	11,300,000	6,490,000	61,500 ^e	85,900	--	4,740,000 ^e
January–April	3,670,000 ^r	2,150,000	28,100 ^{r, e}	--	42,100	1,590,000 ^{r, e}
April	851,000	615,000	491	--	49,800	286,000
May	944,000	569,000	397	24,400	--	352,000
June	895,000	560,000	10,300 ^e	--	32,800	378,000 ^e
July	992,000	480,000	283	80,900	--	431,000
August	947,000	547,000	20,100 ^e	--	70,900	490,000 ^e
September	805,000	496,000	458	--	1,200	311,000
October	1,030,000	569,000	686	62,200	--	402,000
November	1,010,000	541,000	624	48,300	--	416,000
December	968,000	577,000	608	17,100	--	374,000
2023:						
January–April	3,490,000	2,120,000	2,630	--	113,000	1,480,000
January	884,000	577,000	603	--	60,200	368,000
February	831,000	573,000	775	6,050	--	253,000
March	868,000	523,000	785	--	77,900	424,000
April	906,000	448,000	468	18,600	--	439,000

^eEstimated. ^rRevised. -- Zero.

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

²Production plus imports minus exports plus or minus stock changes.

TABLE 5
REPORTED CONSUMPTION OF SODA ASH IN THE UNITED STATES, BY END USE, BY QUARTER¹

(Thousand metric tons)

NAICS ² code	End use	2022					2023
		1st quarter	2d quarter	3d quarter	4th quarter	1st quarter- 4th quarter	1st quarter
3272	Glass:						
327213	Container	267	263	251	239	1,020	273
327211	Flat	249	249	253	251	999	225
327993	Fiber	44	39	43	43	169	40
327212	Other	17	18	16	11	62	13
	Total	574	569	564	543	2,250	551
32518	Chemicals	306	335	312	323	1,280	313
325611	Soaps and detergents	56	59	51	55	221	53
322	Pulp and paper	8	8	8	6	31	9
221310	Water treatment ³	10	10	11	9	40	10
56221	Flue gas desulfurization	42	38	44	39	163	36
4246	Distributors	61	62	62	65	250	137
	Other	116	86	89	115	406	101
	Total domestic consumption ⁴	1,170	1,170	1,140	1,160	4,640	1,210
	Exports ⁵	1,620	1,550	1,610	1,620	6,410	1,530
	Canada	49	44	44	44	181	45
	Total industry sales ⁶	2,790	2,720	2,760	2,780	11,000	2,740
	Total sales from plants	2,840	2,530	2,740	2,870	11,000	2,680
	Total production	2,820	2,690	2,740	3,010	11,300	2,580

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

²North American Industry Classification System.

³Includes soda ash equivalent from soda liquors and purge liquors sold to power plants for water treatment. Sales of mine water are excluded.

⁴Imports reported by the producer/importer have been distributed into appropriate end-use categories listed above.

⁵As reported by producers; includes Canada. Data may not necessarily agree with those reported by the U.S. Census Bureau for the same periods.

⁶Represents soda ash from domestic origin (production and inventory changes) and imports and exports. Includes soda ash sold by coproducers and distributed by purchasers into appropriate end-use categories.