

Mineral Industry Surveys

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SODA ASH IN SEPTEMBER 2022

In September, soda ash production was 797,000 metric tons (t), a 16% decrease compared with the previous month's production and 15% less than that of September 2021. Several companies reported shutdowns of some production units in September resulting in the lower production levels for the month. For the first nine months of 2022, soda ash production was 8.24 million metric tons (Mt), a slight decrease from the revised production for the first nine months of 2021 (table 4). Ending stocks in September were 236,000 t, essentially unchanged compared to ending stocks from the preceding month (table 1).

Wyoming trona production in September 2022 was 1.24 Mt, a 20% decrease compared with the trona production in August 2022 and 19% less than the total in September 2021. For the first nine months of 2022, trona production was 13 Mt, essentially unchanged compared with the revised total for the first nine months of 2021 (table 1).

Exports of soda ash decreased in September 2022 to 496,000 t, 9% less than those in August 2022 and 19% less than those in September 2021. For the first nine months of 2022, exports were 4.8 Mt, 6% less than the first nine months of 2021 (tables 2, 4). Imports of soda ash in September 2022 were 458 t compared with 605 t in August 2022. 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 September 2022 was 303,000 t, 36% less than the total for August 2022 and 22% less than the total for September 2021. For the first nine months of 2022, apparent consumption was an estimated 3.51 Mt, slightly more than the revised estimated apparent consumption for the first nine months of 2021. 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 third quarter of 2022. Reported consumption for the third quarter was 1.14 Mt, 3% less than the reported consumption for the third quarter of 2021. During the third quarter, 554,000 t (49%) went to glassmaking and 317,000 t (28%) was consumed in the production of chemicals. Total reported consumption for the first nine months of 2022 was 3.45 Mt, essentially unchanged from the same period in 2021.

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	
2021:			
January–September	8,390 ^r	214 ^r	13,100 ^r
September	936	214	1,520
October	942	274	1,480
November	950	285	1,490
December	972	278	1,530
January–December	11,300	278	17,600
2022:			
January	980	286	1,600
February	855	256	1,400
March	983	285	1,570
April	851	236	1,170
May	944	260	1,470
June	895	227	1,500
July	992	308	1,480
August	947	237	1,540
September	797	236	1,240
January–September	8,240	236	13,000

^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 2022¹

(Metric tons unless otherwise specified)

Country or locality	January	February	March	April	May	June	July	August	September			January–September		
									Quantity	Value ² (thousand dollars)	Unit value	Quantity	Percent of total quantity	Value ² (thousand dollars)
Argentina	5,000	27,800	--	25,300	5,560	17,300	--	40	1,500	603	\$402	82,600	2	19,700
Australia	--	35,000	23,000	--	35,000	--	28,000	23,300	48	15	300	144,000	3	41,100
Brazil	84,800	15,200	51,200	31,800	102,000	74,100	8,110	51,500	431	141	328	419,000	9	92,400
Canada	13,400	15,800	22,200	19,600	15,500	17,500	15,000	18,100	16,600	4,020	242	154,000	3	35,700
Chile	10,200	36,700	53,400	109,000	54,100	31,300	47,600	98,700	41,800	10,200	244	483,000	10	118,000
Colombia	1,500	19,300	9,730	27,900	12,300	23,000	11,500	17,700	18,300	4,400	241	141,000	3	30,800
Indonesia	68,300	25,700	61,800	54,100	84,300	43,600	42,200	49,200	41,600	13,900	333	471,000	10	134,000
Japan	31,000	225	438	41,800	277	20,200	40,200	4,080	22,500	7,910	351	161,000	3	40,700
Korea, Republic of	21,500	39,900	28,500	16,600	14,600	45,700	32,100	28,100	30,700	10,100	328	258,000	5	71,300
Malaysia	31,500	28,700	11,600	38,000	42,400	35,600	35,500	31,100	37,300	10,900	292	292,000	6	80,000
Mexico	128,000	111,000	161,000	143,000	121,000	138,000	145,000	121,000	126,000	31,300	248	1,190,000	25	286,000
Peru	128	13,900	--	3,130	15,800	450	322	14,800	13,400	3,380	253	61,800	1	15,700
Saudi Arabia	34,200	--	34,500	--	--	--	34,400	--	3,980	1,580	396	107,000	2	26,800
Taiwan	15,000	31,300	7,800	21,500	11,000	20,000	--	31,000	21,800	8,560	392	159,000	3	56,600
Thailand	12,400	60,400	2,430	27,200	4,930	31,500	14,100	15,900	39,300	14,100	358	208,000	4	58,600
Vietnam	13,200	53,200	21,400	24,400	33,000	20,400	15,600	1,420	54,000	18,100	335	236,000	5	74,600
Other	11,500 [†]	21,700 [†]	28,200	32,200 [†]	16,700 [†]	41,000 [†]	10,800 [†]	41,900 [†]	26,000	7,510	289	230,000	5	69,900
Total	482,000	536,000	517,000	615,000	569,000	560,000	480,000	547,000	496,000	147,000	296	4,800,000	100	1,250,000

[†]Revised. -- 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 2022¹

(Metric tons unless otherwise specified)

Country or locality	January	February	March	April	May	June	July	August	Quantity	September	Unit Value	January–September		
										Value ² (thousand dollars)		Quantity	Percent of total quantity	Value ² (thousand dollars)
France	109	60	180	19	20	100	76	60	100	167	\$1,670	724	2	1,070
Italy	--	87	--	162	36	--	18	--	--	--	--	303	1	295
Mexico	118	213	21	156	59	77	59	59	20	22	1,080	782	3	395
Turkey	--	26,500 ^e	--	--	--	--	--	--	--	--	--	26,500 ^e	88	5,040 ^e
United Kingdom	107	35	35	144	193	55	54	283	123	114	927	1,030	3	846
Other	55	13	36	10	90	36	77	204	215	88	411	734	2	909
Total	388	26,900 ^e	272	491	397	267	283	605	458	391	85	30,100 ^e	100	8,550 ^e

^eEstimated. -- Zero.

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.

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	
2021:						
January–December	11,300,000	6,900,000	118,000 ^e	--	9,910 ^r	4,480,000 ^{r, e}
January–September	8,390,000 ^r	5,110,000	80,600 ^{r, e}	--	73,800 ^r	3,430,000 ^{r, e}
September	936,000	613,000	37,600 ^e	--	28,200	389,000 ^e
October	942,000	538,000	585	59,800	--	345,000
November	950,000	593,000	491	11,000	--	346,000
December	972,000	660,000	36,400 ^e	--	6,920	355,000 ^e
2022:						
January–September	8,240,000	4,800,000	30,100 ^e	--	41,700	3,510,000 ^e
January	980,000	482,000	388	8,110	--	491,000
February	855,000	536,000	26,900 ^e	--	29,300	376,000 ^e
March	983,000	517,000	272	28,900	--	438,000
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	267	--	32,800	368,000
July	992,000	480,000	283	80,900	--	431,000
August	947,000	547,000	605	--	70,900	471,000
September	797,000	496,000	458	--	1,200	303,000

^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	2021					2022			
		1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	1st quarter– 3d quarter
3272	Glass:									
327213	Container	254	268	262	254	1,040	240	253	242	735
327211	Flat	239	242	257	252	990	246	249	253	748
327993	Fiber	42	47	40	43	172	44	39	43	125
327212	Other	21	20	18	19	78	17	18	16	51
	Total	556	578	577	568	2,280	547	559	554	1,660
32518	Chemicals	318	311	298	331	1,260	306	335	317	958
325611	Soaps and detergents	59	57	55	59	230	56	59	51	166
322	Pulp and paper	10	7	9	10	36	8	8	8	25
221310	Water treatment ³	9	10	10	9	38	10	10	11	31
56221	Flue gas desulfurization	38	37	47	36	158	42	38	44	125
4246	Distributors	64	60	65	65	254	61	62	67	191
	Other	84	94	112	98	388	116	86	89	291
	Total domestic consumption ⁴	1,140	1,160	1,170	1,180	4,640	1,150	1,160	1,140	3,450
	Exports ⁵	1,730	1,650	1,600	1,630	6,610	1,620	1,550	1,560	4,730
	Canada	38	37	40	46	161	49	44	44	137
	Total industry sales ⁶	2,870	2,800	2,770	2,810	11,300	2,770	2,710	2,700	8,180
	Total sales from plants	2,820	2,770	2,800	2,760	11,200	2,780	2,530	2,710	8,020
	Total production	2,750	2,840	2,800	2,860	11,300	2,820	2,690	2,740	8,250

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.