

SALT

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: Domestic production of salt was estimated to have increased by 5% in 2018 to 42 million tons. The total value of salt sold or used was estimated to be about \$2.3 billion. Twenty-six companies operated 62 plants in 16 States. The top producing States were, in alphabetical order, Kansas, Louisiana, Michigan, New York, Ohio, Texas, and Utah. These seven States produced about 92% of the salt in the United States in 2018. The estimated percentage of salt sold or used was, by type, rock salt, 43%; salt in brine, 40%; vacuum pan salt, 10%; and solar salt, 7%.

Highway deicing accounted for about 43% of total salt consumed. The chemical industry accounted for about 39% of total salt sales, with salt in brine accounting for 87% of the salt used for chemical feedstock. Chlorine and caustic soda manufacturers were the main consumers within the chemical industry. The remaining markets for salt were, in declining order of use, distributors, 7%; agricultural and food processing, 3% each; other uses combined with exports and general industrial, 2% each; and primary water treatment, 1%.

Salient Statistics—United States:¹	2014	2015	2016	2017	2018^e
Production	45,300	45,100	41,700	^e 40,000	42,000
Sold or used by producers	46,000	42,800	40,200	^e 38,000	41,000
Imports for consumption	20,200	21,600	12,100	12,600	17,000
Exports	935	830	716	1,120	950
Consumption:					
Apparent ²	65,300	63,600	51,600	^e 49,000	57,000
Reported	55,600	52,300	48,400	^e 48,000	51,000
Price, average value of bulk, pellets and packaged salt, dollars per ton, f.o.b. mine and plant:					
Vacuum and open pan salt	180.61	188.87	197.78	^e 200.00	200.00
Solar salt	75.35	102.04	99.69	^e 100.00	100.00
Rock salt	48.11	56.32	56.74	^e 55.00	58.00
Salt in brine	9.08	10.27	8.29	^e 10.00	10.00
Employment, mine and plant, number ^e	4,200	4,200	4,000	4,100	4,100
Net import reliance ³ as a percentage of apparent consumption	29	33	22	23	28

Recycling: None.

Import Sources (2014–17): Chile, 38%; Canada, 28%; Mexico, 11%; Egypt, 4%; and other, 19%.

Tariff:	Item	Number	Normal Trade Relations
	Salt (sodium chloride)	2501.00.0000	12–31–18 Free.

Depletion Allowance: 10% (Domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: The winter was slightly colder than average in 2017–18 after several warmer than average winters. The total amount of frozen precipitation was about average, but the number of winter weather events was greater than the last few years in many parts of the United States, requiring more salt for highway deicing. Rock salt production and imports in 2018 increased from the levels in 2017 because demand from many local and State transportation departments increased. The majority of local and State governments in cold regions reportedly had depleted stockpiles and had to replenish supplies of rock salt for the winter of 2018–19. Because winter weather started relatively early in November 2018, many consumers of rock salt had already begun to use stockpiles of salt and considered increasing salt purchases for the remainder of the winter season. Owing to the increased demand for deicing salt, coupled with production interruptions at mines in the United States and Canada, many buyers were experiencing increased unit prices for rock salt.

SALT

For the winter of 2018–19, the National Oceanic and Atmospheric Administration predicted a weak El Niño weather pattern. This pattern normally leads to cooler weather in the Southeast with more precipitation in the Southern United States and drier and warmer conditions in the northern States, particularly in the Great Plains and Great Lakes region. Weather conditions in the northeastern United States were predicted to be near average. Because the effects of a weak El Niño are less predictable, forecasting is more difficult for 2018–19. The early part of the ongoing season was noticeably cooler and wetter than normal, and if this were to continue, as some meteorologists were predicting, salt demand could continue to increase throughout the winter.

Demand for salt brine used in the chloralkali industry was expected to increase as demand for caustic soda increased globally, especially in Asia. Exports from Australia and especially India increased to supply the increasing demand for caustic soda in China.

World Production and Reserves:

	Mine Production ^e		Reserves ⁴
	2017	2018	
United States ¹	40,000	42,000	Large. Economic and subeconomic deposits of salt are substantial in principal salt-producing countries. The oceans contain a virtually inexhaustible supply of salt.
Australia	11,000	12,000	
Austria	4,600	4,600	
Brazil	7,400	7,500	
Canada	12,000	13,000	
Chile	8,500	9,500	
China	67,000	68,000	
France	4,500	4,500	
Germany	13,000	13,000	
India	28,000	29,000	
Mexico	9,000	9,000	
Netherlands	6,940	7,000	
Pakistan	3,600	3,600	
Poland	4,450	4,500	
Russia	5,800	5,800	
Spain	4,500	4,500	
Turkey	5,500	5,500	
United Kingdom	5,100	5,100	
Other countries	<u>47,200</u>	<u>47,000</u>	
World total (rounded)	288,000	300,000	

World Resources: World continental resources of salt are vast, and the salt content in the oceans is nearly unlimited. Domestic resources of rock salt and salt from brine are primarily in Kansas, Louisiana, Michigan, New York, Ohio, and Texas. Saline lakes and solar evaporation salt facilities are in Arizona, California, Nevada, New Mexico, Oklahoma, and Utah. Almost every country in the world has salt deposits or solar evaporation operations of various sizes.

Substitutes: No economic substitutes or alternatives for salt exist in most applications. Calcium chloride and calcium magnesium acetate, hydrochloric acid, and potassium chloride can be substituted for salt in deicing, certain chemical processes, and food flavoring, but at a higher cost.

^eEstimated.

¹Excludes production from Puerto Rico.

²Defined as sold or used by producers + imports – exports.

³Defined as imports – exports.

⁴See Appendix C for resource and reserve definitions and information concerning data sources.