

SALT

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: Domestic production of salt was estimated to have increased slightly in 2019 to 42 million tons. The total value of salt sold or used was estimated to be about \$2.3 billion. Twenty-six companies operated 63 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 2019. The estimated percentage of salt sold or used was, by type, rock salt, 41%; salt in brine, 41%; vacuum pan salt, 10%; and solar salt, 8%.

Highway deicing accounted for about 43% of total salt consumed. The chemical industry accounted for about 37% of total salt sales, with salt in brine accounting for 89% 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, 9%; food processing, 4%; agricultural, 3%; general industrial, 2%; and primary water treatment, 1%. The remaining 1% was other uses combined with exports.

<u>Salient Statistics—United States:</u>¹	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019^e</u>
Production	45,100	41,700	39,600	^e 41,000	42,000
Sold or used by producers	42,800	39,900	38,200	^e 40,000	41,000
Imports for consumption	21,600	12,100	12,600	17,900	17,000
Exports	830	729	1,120	986	730
Consumption:					
Apparent ²	63,600	51,300	49,700	^e 57,000	57,000
Reported	52,300	47,800	45,500	^e 48,000	49,000
Price, average value of bulk, pellets and packaged salt, dollars per ton, f.o.b. mine and plant:					
Vacuum and open pan salt	188.87	197.78	211.71	^e 220.00	220.00
Solar salt	102.04	99.69	115.88	^e 120.00	120.00
Rock salt	56.32	56.75	60.41	^e 62.00	62.00
Salt in brine	10.27	8.68	9.49	^e 10.00	10.00
Employment, mine and plant, number ^e	4,200	4,000	4,100	4,100	4,100
Net import reliance ³ as a percentage of apparent consumption	33	22	23	30	29

Recycling: None.

Import Sources (2015–18): Chile, 36%; Canada, 25%; Mexico, 12%; Egypt, 6%; and other, 21%.

<u>Tariff:</u> Item	Number	Normal Trade Relations <u>12–31–19</u>
Salt (sodium chloride)	2501.00.0000	Free.

Depletion Allowance: 10% (Domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: The winter was slightly colder than average in 2018–19 for the second consecutive year. The number of winter weather events was greater than the last few years in many parts of the United States, including an increase in episodes of freezing rain and sleet, requiring more salt for highway deicing. Rock salt production and imports in 2019 remained at about the same level as that of 2018 because demand from many local and State transportation departments remained relatively high. Most local and State governments in regions that experience cold winters reportedly had depleted stockpiles and needed to replenish supplies of rock salt for the winter of 2019–20.

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For the winter of 2019–20, the National Oceanic and Atmospheric Administration predicted a neutral weather pattern without El Niño or La Niña affects: other weather patterns were expected to have a greater influence. Forecasts include warmer than average temperatures for the northeastern, northwestern, and southern areas of the United States, and the northern plains and Midwest are expected to have average temperatures. Areas from the mid-Atlantic to the northern Rocky Mountains are predicted to have a wetter than average winter, but much of New England and most of the South are forecast to have average precipitation. The early part of the season was noticeably cooler and wetter than normal, and consumers of rock salt had already begun to use stockpiles of salt and considered increasing salt purchases for the remainder of the winter season.

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 meet the increasing demand for caustic soda in China.

World Production and Reserves:

	Mine production ^e		Reserves ⁴
	2018	2019	
United States ¹	41,000	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	12,000	13,000	
Austria	4,900	4,900	
Brazil	7,500	7,600	
Canada	12,000	12,000	
Chile	8,000	9,000	
China	58,000	60,000	
France	5,700	5,700	
Germany	14,000	14,000	
India	29,000	30,000	
Italy	4,100	4,100	
Mexico	9,000	9,000	
Netherlands	7,000	7,000	
Pakistan	4,400	4,500	
Poland	4,400	4,500	
Russia	7,000	7,000	
Spain	4,200	4,300	
Turkey	6,500	6,600	
United Kingdom	4,100	4,100	
Other countries	<u>43,000</u>	<u>44,000</u>	
World total (rounded)	286,000	293,000	

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.