

SALT

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: Domestic production of salt was estimated to have decreased by 7% in 2020 to 39 million tons. The total value of salt sold or used was estimated to be about \$2.4 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 95% of the salt in the United States in 2020. 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 38% of total salt sales, with salt in brine accounting for 90% 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 distributors, 9%; food processing, 4%; agricultural, 2%; and general industrial and primary water treatment, 1% each. The remaining 2% was other uses combined with exports.

Salient Statistics—United States:¹	2016	2017	2018	2019	2020^e
Production	41,700	39,600	^e 42,000	^e 42,000	39,000
Sold or used by producers	39,900	38,200	^e 41,000	^e 41,000	38,000
Imports for consumption	12,100	12,600	17,900	18,600	16,000
Exports	729	1,120	986	1,020	1,200
Consumption:					
Apparent ²	51,300	49,700	^e 58,000	^e 58,000	53,000
Reported	47,800	45,500	^e 48,000	^e 49,000	43,000
Price, average value of bulk, pellets and packaged salt, f.o.b. mine and plant, dollars per ton:					
Vacuum and open pan salt	197.78	211.71	^e 220.00	^e 215.00	215.00
Solar salt	99.69	115.88	^e 120.00	^e 120.00	120.00
Rock salt	56.75	60.41	^e 58.00	^e 58.00	57.00
Salt in brine	8.68	9.49	^e 9.00	^e 9.00	9.00
Employment, mine and plant, number ^e	4,000	4,100	4,100	4,100	4,000
Net import reliance ³ as a percentage of apparent consumption	22	23	29	30	27

Recycling: None.

Import Sources (2016–19): Chile, 33%; Canada, 24%; Mexico, 13%; Egypt, 9%; and other, 21%.

Tariff:	Item	Number	Normal Trade Relations 12–31–20
	Salt (sodium chloride)	2501.00.0000	Free.

Depletion Allowance: 10% (domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: The global COVID-19 pandemic affected production and consumption of salt throughout the world in 2020. The most significant impact was felt in the chloroalkali industry because international trade declined, but the entire salt sector was negatively affected to varying degrees. The chloroalkali industry was also disrupted by severe weather events, mainly hurricanes, in the primary production areas of Louisiana and Texas.

The 2019–20 winter was slightly milder than average after several years of average or below average winter temperatures and more winter weather events than usual. The number of winter weather events including freezing rain, sleet, and snow is a better predictor of demand for rock salt than total snow fall. Several low snowfall or icing events will usually require more salt for highway deicing than a single large snowfall event. Rock salt production and imports in 2020 decreased compared with those of 2019 because demand from many local and State transportation departments decreased. Most local and State governments in regions that experienced a less intense winter season reportedly had remaining stockpiles and therefore less need to replenish supplies of rock salt for the winter of 2020–21.

SALT

For the winter of 2020–21, the National Oceanic and Atmospheric Administration predicted a moderate to strong La Niña weather pattern. A strong La Niña historically favors an average to warmer temperature pattern, but a moderate La Niña favors a colder winter. Based on several factors, the forecasts slightly favored a wetter than normal winter. A warmer and drier pattern was predicted for the southern areas of the United States, but the northwestern and northern plains were more likely to have below average temperatures and elevated precipitation. Areas from the mid-Atlantic to New England were thought to have a better than average chance for warmer temperatures and average precipitation. These forecasts would indicate that demand for rock salt could increase in the Midwest and decrease in the northeastern United States from Maine through Virginia.

Demand for salt brine used in the chloralkali industry was expected to rebound in 2021 as demand for caustic soda increases globally, especially in Asia. Exports from Australia and especially India increased to meet the increasing demand for caustic soda in China, but tensions between China and both countries could affect trade.

World Production and Reserves:

	Mine production ^e		Reserves ⁴
	<u>2019</u>	<u>2020</u>	
United States ¹	42,000	39,000	Large. Economic and subeconomic deposits of salt are substantial in principal salt-producing countries. The oceans contain a virtually inexhaustible supply of salt.
Australia	13,000	12,000	
Belarus	3,300	3,000	
Brazil	7,400	7,200	
Canada	11,000	10,000	
Chile	10,000	10,000	
China	59,000	60,000	
Djibouti	3,800	3,500	
France	5,600	5,500	
Germany	14,300	14,000	
India	29,000	28,000	
Iran	3,000	3,000	
Italy	4,200	4,000	
Mexico	9,000	9,000	
Netherlands	5,910	5,000	
Pakistan	3,700	3,000	
Poland	4,480	4,000	
Russia	6,700	6,000	
Spain	4,200	4,000	
Turkey	6,500	6,400	
United Kingdom	4,100	4,000	
Other countries	<u>33,000</u>	<u>30,000</u>	
World total (rounded)	283,000	270,000	

World Resources:⁴ 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.