

## SALT

(Data in thousand metric tons, unless otherwise noted)

**Domestic Production and Use:** Domestic production of salt increased slightly in 1999, with total value estimated at \$965 million. Thirty-one companies operated 69 plants in 15 States. The estimated percentage of salt sold or used, by type, was salt in brine, 51%; rock salt, 32%; vacuum pan, 9%; and solar salt, 8%.

The chemical industry consumed about 50% of total salt sales, with salt brine representing about 89% of the type of salt used for feedstock. Chlorine and caustic soda manufacture was the main consuming sector within the chemical industry. Salt for highway deicing accounted for 21% of U.S. demand. The remaining markets for salt, in declining order, were distributors, 10%; industrial, 7%; agricultural and food, 4% each; other combined with exports, 3%; and primary water treatment, 1%.

<b>Salient Statistics—United States:<sup>1</sup></b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999<sup>o</sup></b>
Production	42,100	42,200	41,400	41,200	41,400
Sold or used by producers	40,800	42,900	40,600	40,800	41,000
Imports for consumption	7,090	10,600	9,160	8,770	8,800
Exports	670	869	748	731	900
Consumption: Reported	46,500	52,800	49,500	44,200	48,900
Apparent	47,200	52,600	49,000	48,800	48,900
Price, average value of bulk, pellets and packaged salt, dollars per ton, f.o.b. mine and plant:					
Vacuum and open pan salt	118.63	120.54	119.61	114.93	110.00
Solar salt	30.82	39.97	38.81	37.56	40.00
Rock salt	21.80	22.14	20.50	21.90	19.00
Salt from brine	6.91	6.72	6.67	5.93	6.00
Stocks, producer, yearend <sup>o 2</sup>	1,300	1,400	800	400	400
Employment, mine and plant, number	4,150	4,150	4,150	4,150	4,100
Net import reliance <sup>3</sup> as a percent of apparent consumption	14	19	17	17	16

**Recycling:** None.

**Import Sources (1995-98):** Canada, 41%; Chile, 19%; Mexico, 18%; The Bahamas, 11%; and other, 11%.

<b>Tariff: Item</b>	<b>Number</b>	<b>Normal Trade Relations</b>
		<b>12/31/99</b>
Iodized salt	2501.00.0000	Free.

**Depletion Allowance:** 10% (Domestic and foreign).

**Government Stockpile:** None.

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**Events, Trends, and Issues:** A succession of mild winters reduced salt consumption in the United States for highway deicing. As a result, consumer and salt producer inventories of rock salt were higher than normal.

A rock salt mine in Detroit, MI, that was closed since the mid-1980's and reopened by a new salt company in 1998 continued to expand production operations in 1999. Output from this mine, and from the new Hampton Corners, NY, rock salt mine that came on-stream in late 1999, will help alleviate some of the shortage of the production capacity lost when the Retsof, NY, mine closed in 1995.

A large rock salt producer in Germany reduced its production capacity by one-third, or 900,000 tons per year, citing a weak demand for road salt caused by mild winters in Europe for the past couple of years. The company, which is the largest salt producer in Europe and the fourth largest in the world, announced plans to restructure its operations by upgrading its packaging facilities and reducing maintenance costs to offset reduced rock salt sales.

Consumption of salt in 2000 is expected to be similar to that of 1999. Many weather forecasters were forecasting below-normal temperatures and a more severe winter that should help alleviate the buildup of salt inventories for the past 2 years. The shutdown of two chlorine facilities in the Pacific Northwest will decrease imports of solar salt used as feedstock. Mexico had been a major source of imported salt for chloralkali manufacture.

### **World Production, Reserves, and Reserve Base:**

	<b>Production</b>		<b>Reserves and reserve base<sup>4</sup></b>
	<b>1998</b>	<b>1999<sup>e</sup></b>	
United States <sup>1</sup>	41,200	41,400	Large. Economic and subeconomic deposits of salt are substantial in principal salt-producing countries. The oceans comprise an inexhaustible supply of salt.
Australia	8,880	8,800	
Brazil	5,500	5,700	
Canada	13,300	13,400	
China	30,800	31,000	
France	7,000	7,100	
Germany	15,700	15,200	
India	9,500	9,500	
Italy	3,600	3,600	
Mexico	8,400	8,400	
Poland	3,900	4,000	
Russia	2,000	2,100	
Spain	3,500	3,600	
Ukraine	2,500	2,400	
United Kingdom	6,600	6,600	
Other countries	<u>23,600</u>	<u>37,200</u>	
World total (may be rounded)	186,000	200,000	

**World Resources:** World resources of salt are practically unlimited. Domestic resources of rock salt and salt from brine are in the Northeast, Central Western, and southern Gulf Coast States. Saline lakes and solar evaporation salt facilities are near populated regions in the Western United States. Almost every country in the world has salt deposits or solar evaporation operations of various sizes.

**Substitutes:** There are no economic substitutes or alternates for salt. 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.

<sup>e</sup>Estimated.

<sup>1</sup>Excludes Puerto Rico.

<sup>2</sup>Reported stock data are incomplete. For apparent consumption and net import reliance calculations, changes in annual stock totals are assumed to be the difference between salt produced and salt sold or used.

<sup>3</sup>Defined as imports - exports + adjustments for Government and industry stock changes.

<sup>4</sup>See Appendix C for definitions.