

SALT

(Data in thousand metric tons, unless otherwise noted)

Domestic Production and Use: Domestic production of salt increased slightly in 2003 based on only 35% of the salt operations responding to the production estimate canvass. The total value was estimated at \$1 billion. Twenty nine companies operated 69 plants in 15 States. The estimated percentage of salt sold or used, by type, was salt in brine, 51%; rock salt, 30%; vacuum pan, 11%; and solar salt, 8%.

The chemical industry consumed about 45% of total salt sales, with salt in 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 31% of U.S. demand. The remaining markets for salt, in declining order, were distributors, 8%; industrial, 6%; agricultural, 4%; food, 4%; water treatment, 2%; and other combined with exports, less than 1%.

Salient Statistics—United States: ¹	1999	2000	2001	2002	2003^e
Production	44,900	45,600	44,800	40,300	41,200
Sold or used by producers	44,400	43,300	42,200	37,700	38,600
Imports for consumption	8,870	8,960	12,900	8,160	12,000
Exports	892	642	1,120	689	500
Consumption:					
Reported	50,000	54,000	48,700	43,600	50,100
Apparent	52,400	51,600	54,000	45,100	50,100
Price, average value of bulk, pellets and packaged salt, dollars per ton, f.o.b. mine and plant:					
Vacuum and open pan salt	112.49	113.95	120.02	120.02	122.00
Solar salt	52.08	50.46	52.33	53.93	59.00
Rock salt	22.55	20.67	21.84	21.62	20.00
Salt in brine	6.65	5.70	6.26	5.89	6.00
Stocks, producer, yearend ^{e, 2}	500	2,300	NA	NA	NA
Employment, mine and plant, number	4,100	4,100	4,100	4,100	4,100
Net import reliance ³ as a percentage of apparent consumption	15	16	22	17	23

Recycling: None.

Import Sources (1999-2002): Canada, 42%; Chile, 20%; Mexico, 12%; The Bahamas, 9%; and other, 17%.

Tariff: Item	Number	Normal Trade Relations
		12/31/03
Iodized salt	2501.00.0000	Free.

Depletion Allowance: 10% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Severe winter weather during the first quarter of 2003 increased sales of rock salt for highway deicing. In addition to an increase in domestic rock salt production, imports rose to add to the supply availability of deicing salt. During the fourth quarter, sufficient supplies of rock salt were made available should there be further adverse winter weather.

The Washington State Department of Transportation extended its pilot project to evaluate the performance of rock salt and alternative deicing chemicals along several State roads. The State stopped using rock salt several years ago because of concerns about corrosion and the effect of salt on the environment. Although more expensive deicing chemicals had been used, corrosion still happened on vehicles. This project will address how much corrosion reduction is actually happening using the more expensive deicing agents when compared with the less expensive rock salt.

A State commission is evaluating a project that would increase the availability of fresh water in California by constructing numerous coastal desalination plants. Opponents to the proposal claim that the desalination plants could harm marine life, alter sensitive habitats, trap plants and small sea creatures in water intake pipes, and discharge large quantities of salt to the ocean.

Domestic consumption of salt in 2003 is expected to be higher than that of 2002. With the proposed closure of some solar salt capacity in California, domestic production may decline, but overall supplies, especially those from imports, should meet any unanticipated increase in demand.

World Production, Reserves, and Reserve Base:

	Production		Reserves and reserve base ⁴
	2002	2003 ^e	
United States ¹	40,300	41,200	Large. Economic and subeconomic deposits of salt are substantial in principal salt-producing countries. The oceans contain an inexhaustible supply of salt.
Australia	9,890	10,000	
Brazil	5,600	6,100	
Canada	12,300	12,300	
China	32,800	34,000	
France	7,000	7,000	
Germany	15,700	14,000	
India	14,500	15,000	
Italy	3,600	3,600	
Mexico	8,500	8,000	
Poland	4,200	3,500	
Russia	2,800	3,000	
Spain	3,200	3,200	
Ukraine	2,300	2,500	
United Kingdom	5,800	5,800	
Other countries	<u>41,500</u>	<u>41,000</u>	
World total (rounded)	210,000	210,000	

World Resources: World continental resources of salt are practically unlimited, and the salt content in the oceans is virtually inexhaustible. 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.

^eEstimated. NA Not applicable.

¹Excludes Puerto Rico production.

²Reported 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.

³Defined as imports – exports + adjustments for Government and industry stock changes.

⁴See Appendix C for definitions.