SALT

(Data in thousand metric tons, unless otherwise noted)

<u>Domestic Production and Use</u>: Domestic production of salt increased slightly in 2000, with total value estimated at \$1 billion. 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 45% of total salt sales, with salt brine representing about 91% 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, 3%; primary water treatment, 2%; and other combined with exports, 1%.

| Salient Statistics—United States:1 | 1996 | <u> 1997</u> | <u>1998</u> | <u> 1999</u> | 2000 ^e |
|--|--------|--------------|-------------|--------------|-------------------|
| Production | 42,200 | 41,400 | 41,200 | 44,900 | 45,300 |
| Sold or used by producers | 42,900 | 40,600 | 40,800 | 44,400 | 45,300 |
| Imports for consumption | 10,600 | 9,160 | 8,770 | 8,870 | 8,800 |
| Exports | 869 | 748 | 731 | 892 | 800 |
| Consumption: Reported | 52,800 | 49,500 | 44,200 | 50,000 | 53,300 |
| Apparent | 52,600 | 49,000 | 48,800 | 52,400 | 53,300 |
| Price, average value of bulk, pellets and packaged salt, dollars per ton, f.o.b. mine and plant: | | | | | |
| Vacuum and open pan salt | 120.54 | 119.61 | 114.93 | 112.49 | 111.00 |
| Solar salt | 39.97 | 38.81 | 37.56 | 52.02 | 38.00 |
| Rock salt | 22.14 | 20.50 | 21.90 | 22.55 | 21.00 |
| Salt from brine | 6.72 | 6.67 | 5.93 | 6.65 | 6.00 |
| Stocks, producer, yearend ^{e 2} | 1,400 | 800 | 400 | 500 | 0 |
| Employment, mine and plant, number | 4,150 | 4,150 | 4,150 | 4,100 | 4,200 |
| Net import reliance ³ as a percent of | | | | | |
| apparent consumption | 19 | 17 | 17 | 15 | 15 |

Recycling: None.

Import Sources (1996-99): Canada, 41%; Chile, 20%; Mexico, 16%; The Bahamas, 11%; and other, 12%.

Tariff: Item Number Normal Trade Relations

12/31/00
Iodized salt 2501.00.0000 Free.

Depletion Allowance: 10% (Domestic and foreign).

Government Stockpile: None.

SALT

Events, Trends, and Issues: After a 5-year scientific assessment, the Canadian Government released for public comments its findings that road salts (calcium chloride, magnesium chloride, potassium chloride, and sodium chloride) are toxic to the environment. A final decision had not been made by yearend, but if the assessment is adopted, the government would have 2 years to develop control measures and 18 months to implement them so that road salts would not be released to the environment. Opponents to this study were hopeful that the government will realize that sodium chloride is not a toxic substance and that there are no reasonable alternative deicing agents.

A U.S. salt company brought on-stream its new vacuum pan salt facility in Baytown, TX. The plant has an annual nameplate capacity of 725,000 tons. Another domestic vacuum pan salt-producer closed its plant in Hutchinson, KS, and increased capacity at its other facilities in Lyons, KS, and Hersey, MI.

The new rock salt mine at Hampton Corners, NY, that came on-stream in late 1999 expanded production to meet the anticipated demand for rock salt for the winter of 2000-01. After a few mild winters that affected salt sales, many weather forecasters were forecasting below-normal temperatures and a more severe winter that may help alleviate the buildup of salt inventories and increase rock salt sales.

New salt projects were being developed around the world, such as new solar salt plants in Venezuela and Vietnam. After years of planning and discussion, the proposed solar salt complex in San Ignacio Lagoon in Baja, Mexico, was canceled by the Government. Environmental groups were concerned that the new project would be detrimental to whales and other marine life, however, an environmental impact study showed otherwise.

Consumption of salt in 2001 is expected to be higher than that of 2000.

World Production, Reserves, and Reserve Base:

| a itoooi to Baco. | | |
|-------------------|--|--|
| Pro | oduction | Reserves and reserve base⁴ |
| <u>1999</u> | <u>2000</u> ° | |
| 44,900 | 45,300 | Large. Economic and subeconomic |
| 10,000 | 9,000 | deposits of salt are substantial in |
| 6,900 | 7,000 | principal salt-producing countries. |
| 12,500 | 12,500 | The oceans comprise an |
| 28,100 | 30,000 | inexhaustible supply of salt. |
| 7,000 | 7,100 | |
| 15,700 | 15,800 | |
| 14,500 | 14,500 | |
| 3,600 | 3,600 | |
| 8,500 | 8,600 | |
| 4,000 | 4,000 | |
| 2,000 | 2,000 | |
| 3,200 | 3,500 | |
| 2,500 | 2,500 | |
| 5,800 | 5,700 | |
| <u>39,800</u> | <u>38,900</u> | |
| 209,000 | 210,000 | |
| | Pro 1999 44,900 10,000 6,900 12,500 28,100 7,000 15,700 14,500 3,600 8,500 4,000 2,000 3,200 2,500 5,800 39,800 | Production 1999 2000° 44,900 45,300 10,000 9,000 6,900 7,000 12,500 12,500 28,100 30,000 7,000 7,100 15,700 15,800 14,500 14,500 3,600 3,600 8,500 8,600 4,000 4,000 2,000 2,000 3,200 3,500 2,500 2,500 5,800 5,700 39,800 38,900 |

<u>World Resources</u>: 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.

<u>Substitutes</u>: 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.

¹Excludes Puerto Rico.

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.