

SALT (ROCK)



# Indian Minerals Yearbook 2012

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**SALT**

(FINAL RELEASE)

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## 44 Salt

Occurrences of rock salt in India are scanty. The only producer which obtains rock salt in meagre quantities, is the Hindustan Salt Ltd, Jaipur from its mines located in Mandi district of Himachal Pradesh. The main source of common salt is sea water. It is being obtained from water of salt lakes, seas, or sub soil brines after evaporation due to solar heat.

When pure, the common salt is the mineral halite, which is being an essential need of human beings and is being produced from the beginning of human history. Halite is colourless or white but may contain various tints.

### RESOURCES

As per UNFC system, the total resources of rock salt as on 1.4.2010 are provisionally estimated at 16.03 million tonnes in Mandi

district of Himachal Pradesh only. Out of the total resources, about 10.04 million tonnes are proved reserves and 5.99 million tonnes are probable reserves.

### PRODUCTION, STOCKS AND PRICES

There was no production of salt ( rock) in 2011-12 due to temporary discontinuance of mining operations of Hindustan Salt Ltd, Jaipur, a public sector mine located in Mandi district of Himachal Pradesh (Tables 1 & 2).

There was no Mine-head stocks of rock salt at the beginning and end of the year 2011-12.

The average daily employment of labours in 2011-12 was nil. Prices of salt are furnished in the General Review on 'Prices'.

**Table – 1 : Production of Salt (Rock)  
2009-10 to 2011-12  
(By State)**

(Qty in tonnes; value in ₹'000)

State	2009-10		2010-11		2011-12(P)	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>India</b>	<b>1836</b>	<b>4908</b>	<b>1200</b>	<b>2971</b>	-	-
Himachal Pradesh	1836	4908	1200	2971	-	-

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**Table – 2 : Production of Salt (Rock),  
2010-11 and 2011-12  
(By Sector/States/District)**

(Qty in tonnes; value in ₹'000)

State/District	2010-11			2011-12(P)		
	No. of mines	Quantity	Value	No. of mines	Quantity	Value
<b>India</b>	<b>1</b>	<b>1200</b>	<b>2971</b>	-	-	-
Public sector	1	1200	2971	-	-	-
<b>Himachal Pradesh</b>	<b>1</b>	<b>1200</b>	<b>2971</b>	-	-	-
Mandi	1	1200	2971	-	-	-

### MINING

Due to lack of production of rock (salt) during 2011-12 no remarkable development of mining of rock (salt) has occurred. Hindustan Salts Ltd, a Govt. of India enterprise and its subsidiary Sambhar Salts Ltd have its own rock salt mines at Mandi in Himachal Pradesh. The company has proposed to set up a solution mining project to feed to chloroalkali plant of 60,000 tpy capacity.

### USES

Salt, in addition to its culinary and domestic uses, is employed in meat packing, fish curing and its preservation, dairying, preservation & processing of hides, manufacturing of soaps and dyestuff, dyeing and finishing of fabrics, refrigeration, glazing earthenware, explosives, bakery products, for soil stabilisation, in manufacture of artificial rubber and as a wood preservative. In agriculture, salt is used for treating hay and as a fertilizer for certain crops. In countries with cold weather conditions, salt is used in controlling ice and snow on streets and highways.

#### Industrial Applications

Salt is an important raw material for chemical industry. It is used in the production of basic chemicals like sodium carbonate (soda ash), caustic soda, hydrochloric acid, chlorine, bleaching powders, chlorates, sodium sulphate (salt cake) and sodium metal. These basic chemicals, in turn, are used in the preparation of various end products, such as soaps, detergents, chlorinated hydrocarbons like DDT and carbon tetrachloride. Other important

uses are in food processing and as freezing-point depressant in refineries and milk supply schemes, for the treatment of industrial wastes, in the manufacture of synthetic indigo, explosives, papers, purification of drinking water, etc.

The rock salt produced from Mandi mines contains 67.81% NaCl and it is not suitable for human consumption as the content of sodium chloride should be 96% NaCl (min). It is generally used to feed cattle.

#### Iodised Salt

A portion of rock salt produced is iodised in order to meet the requirements of goitre-endemic areas in the country. Iodised salt is produced by mixing potassium iodate with salt using spray, drip feed, dry mixing and submersion processes. Iodisation of salt is carried out in plants operated by Sambhar Salts Ltd, (a subsidiary of Hindustan Salts Ltd in public sector), Kharagodah, Gujarat. About 831 plants including 67 refineries with an annual capacity of 17 million tpy produced 6.22 million tonnes iodised salt. The Hindustan Salts Ltd has also set up an iodisation plant at Ramnagar in Nainital district, Uttarakhand.

### CONSUMPTION

Industrial consumption of rock salt is steadily increasing and has registered a record high of 11.28 million tonnes in 2011-12. During the same period, human consumption of salt was reported at 5.96 million tonnes. The industrial consumption of salt is given in Table -3.

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**Table – 3 : Industrial Consumption of Salt (Rock)**  
**2009-10 to 2011-12**  
**(By Industries)**

Industry	(In '000 tonnes)		
	2009-10	2010-11	2011-12(P)
<b>Total</b>	<b>10058.5</b>	<b>10758.6</b>	<b>11288.9</b>
Caustic soda/soda ash	7604.1	8078.4	8625.8
Misc. Industries (Paper/dye, foods, steel, oil, etc.)	2454.4	2680.2	2663.1

*Source: Salt Commissioner, Govt. of India, Jaipur.*

**FOREIGN TRADE****Exports**

Exports of salt (other than common salt) increased to 2.71 million tonnes in 2011-12 from 1.85 million tonnes during the preceding year (Table-4).

**Imports**

In 2011-12, imports of salts (other than common salt) were at 34,208 tonnes as compared to 34,148 tonnes in the previous year. Imports were mainly from Pakistan (Table-5).

**Table – 4 : Exports of Salt (Other than common salt)**  
**(By Countries)**

Country	2010-11		2011-12	
	Qty (t)	Value (₹'000)	Qty (t)	Value (₹'000)
<b>All Countries</b>	<b>1854898</b>	<b>2075879</b>	<b>2712076</b>	<b>2598357</b>
China	503676	585955	652333	616510
Japan	484630	474267	640670	586996
Indonesia	286705	412689	608610	573256
Qatar	148893	142311	362559	359225
Korea, D. Rep	106000	83316	171200	149416
Bangladesh	95217	98804	151889	117538
Malaysia	31802	40273	28556	42092
Vietnam	5422	5132	40514	41692
Korea, Rep. of	79400	54080	23500	22924
Nepal	1954	5371	6402	14484
Other countries	111199	173681	25843	74224

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**Table – 5 : Imports of Salt (Other than common salt)  
(By Countries)**

Country	2010-11		2011-12	
	Qty (t)	Value (₹ '000)	Qty (t)	Value (₹ '000)
<b>All Countries</b>	<b>34148</b>	<b>82777</b>	<b>34208</b>	<b>85575</b>
Pakistan	31371	64570	32782	66023
USA	23	5033	64	8360
Germany	179	1830	155	2390
France	2	45	7	2238
Afghanistan	2107	3324	967	1548
New Zealand	72	900	120	1377
Korea Rep. of	++	7	24	1322
UK	25	380	50	566
Israel	20	747	12	504
Italy	7	373	9	495
Other countries	342	5568	18	752