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# **SUMMARY**

Linear Alkyl Benzene (LAB) is a downstream petrochemical product. It is a surfactant used in manufacturing premium detergents. The demand for premium detergents is steadily growing in India, especially in urban areas due to which the demand for LAB is also rising. Although there are substitutes of LAB viz. Fatty Alcohol Ethoxylates and Alpha Olefin Sulphonates, then too LAB commands a major share in the surfactant market due to it's better performance and affordability. There are only four manufacturers of LAB in India viz. Reliance Industries, Nirma, IPCL and Tamilnadu Petroproducts.

# INTRODUCTION

LAB is a surfactant used in premium detergents. It is also used as a surfactant in textile industry and also used as a wetting agent in paper industry. Substantial quantity of LAB is consumed in premium detergent segment, demand for which is rising at the rate of 8% p.a. and is expected to grow at the same rate in the near future, thus indicating LAB consumption rising at the rate of 8% p.a. The LAB market is about Rs. 924 crore and has posted a growth of 13.66 % in 1998-99 as against a rise of 1.44 % in 1997-98. The rise in 1997-98 was basically due to entry of Nirma in LAB production.

# **MARKET**

# Size

The Rs. 924 crore LAB market is steadily growing from Rs. 801 crore in 1996-97 and Rs. 813 crore in 1997-98. The market is growing at the rate of 4.75 percent per annum.

# **Structure**

There are four local producers - Reliance Industries, Nirma, IPCL and Tamilnadu Petroproducts. Nirma is manufacturing LAB basically for its captive consumption, whereas the other three sell to detergent manufacturers, by applying in floating tenders.

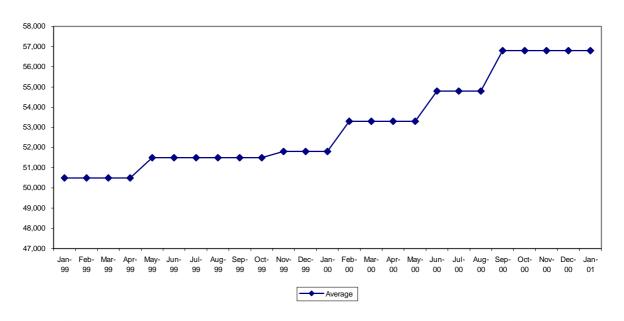
The constituents compete with each other on pricing, quality, providing different grades to suit the prescribed sulfonation techniques of the customers, distribution, etc.

The growth in LAB consumption depends upon the demand of premium detergents which is expected to face resistance due to it's price tag. Also the shift to the substitutes in manufacture of detergents will effect the future of LAB industry, which is witnessing global overcapacity. But LAB being used in manufacture of consumer goods which is fairly stable, the consumption of LAB is unlikely to witness wild fluctuations.

The prices of LAB are rising steadily from Rs. 50,500 in Jan 99 to Rs. 56,800 in Jan 2001. The price graph depicts the trend. This is obviously a boon to the companies.

Chart 1: Price trend of LAB.





The production and sales for the past three years is as under:

Trends in Sales Quantity			
	199803	<u>199903</u>	200003
Nirma	3,354	17,688	31,552
Reliance Industries	94,908	99,789	110,544
Tamilnadu Petroproducts	0	0	0
Total	98,262	117,477	142,096
Trends in Production			
	199803	199903	200003
Nirma	12,815	58,930	72,592
Reliance Industries	94,908	99,789	112,608
Tamilnadu Petroproducts	91,294	70,225	87,461
Total	199,017	228,944	272,661
Trends in Capacity			
	199803	199903	200003
Nirma	75,000	75,000	75,000
Reliance Industries	80,000	100,000	100,000
Tamilnadu Petroproducts	75,000	75,000	75,000
Total	429,803	449,903	449,903

<sup>\*\*</sup>ipcl figs. Not available.

# INPUTS AND TECHNOLOGY

LAB is manufactured by alkylation of benzene with parafins obtained from kerosene by Standard Limited Oil Process (UOP). The inputs are benzene and parafin. 340 kgs of benzene and 810 kgs of paraffin is required to manufacture one tonne of LAB. There are technological developments in manufacturing LAB by Detal Process and n-paraffin recovery. The production processes are licenced by UOP and Shell and is easily available to any new manufacturers anywhere arround the world.

# **POLICY**

The government has rationalised the import duty of LAB and now there is no need for a change in duty structure. Also raw materials are available duty free against advance licences.

# INTERNATIONAL SCENARIO

The international market is witnessing oversupply for the whole decade. The global consumption is 2 mn. tonnes p.a. The global prices are in the region of US\$ 700 - 750 per tonne. The consumption is expected to rise at the rate of 3.3 % to 4 mn. tonnes. The demand of LAB is expected to rise due to shift from BAB to LAB. Also the Latin American markets are likely to witness strong demand in the future. But along with this, there are capacity additions in the tune of 330 thousand tonnes. This will inturn not ease the global overcapacity problem.

# **OUTLOOK**

The market is likely to face sharp competition due to overcapacity, shift towards the better quality substitutes and slow growth in premium detergents' consumption. This will result in slow growth of LAB market in the future. Then too the LAB consumption in India is expected to grow at the rate of approx. 8% p.a.