Production of Linear Alkyl Benzene Sulphonic Acid (LABSA)

<table>
<thead>
<tr>
<th>Parameter</th>
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<tr>
<td>Capacity</td>
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<tr>
<td>Plant and machinery cost</td>
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<td>Working Capital</td>
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<td>Rate of return (ROR)</td>
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<td>Break Even Point (BEP)</td>
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<tr>
<td>TCI</td>
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<tr>
<td>Cost of Project</td>
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</table>
Production of Linear Alkyl Benzene Sulphonic Acid (LABSA).

A major ingredient of Household Detergents, Laundry Powders, Laundry Liquids, Dishwashing Liquids, Other Household Cleaners

Linear Alkylbenzene Sulphonic Acid can be neutralized with caustic soda (NaOH) to form sodium alkylbenzene sulphonate—an extensively applied anionic surfactant. Linear alkylbenzene sulfonic acid is the largest-volume synthetic surfactant because of its relatively low cost, good performance, the fact that it can be dried to a stable powder and the biodegradable environmental friendliness as it has straight chain. LABSA is not inflammable substance and can dissolve in water, but not in organic solvent. LABSA is quite absorbent and its biodegradability is above 90%.

Linear Alkylbenzene Sulphonic Acid is extensively applied anionic surfactant. It is raw material for detergent industry characterized by detergency, foam, moisture, and emulsion and dispersing.

Linear alkylbenzene sulfonic acid (LABSA) is prepared commercially by sulfonating linear alkylbenzene (LAB). Linear alkylbenzene sulfonate (LAS), the world’s largest-volume synthetic surfactant, which includes the various salts of sulfonated alkylbenzenes, is widely used in household detergents as well as in numerous industrial applications.

It is highly efficient versatile surfactant suitable for use separately as detergent in acidic environments. As intermediate it is usually neutralized with various bases to produce sulfonates that are used in numerous industries, most commonly in the production of liquid and powder detergents, household and I&I cleaners, laundry detergents, dishwashing liquids, car wash products, hard surface cleaners etc. Besides these s applied in various industrial applications such as agriculture, emulsion polymerization, oil field chemicals etc. Linear Alkyl Benzene Sulphonic Acid is an anionic surfactant with molecules characterized by a hydrophobic and a hydrophilic group. They are nonvolatile compounds produced by sulfonation.

Linear Alkyl Benzene Sulphonic Acid is an anionic surfactant with molecules characterized by a hydrophobic and a hydrophilic group. They are nonvolatile compounds produced by sulfonation. Linear alkyl benzene sulfonic acid are complex mixtures of homologues of different alkyl chain lengths (C10 to C14) and phenyl positional isomers of 2 to 5-phenyl in proportions dictated by the starting materials and reaction conditions, each containing an aromatic ring sulfonated at the para position and attached to a linear alkyl chain at any position with the exception of terminal one (1-phenyl).

Uses:

High action of detergency, moistening, foaming, emulsion. Widely applied in a variety of detergents and emulsifiers, such as washing powder, daily-use chemical detergent, utensils detergents and textile industry of the cleaning agent, dye, electroplating industry, leather industry, degreasing agents and paper industry’s de-coloring agent. Household detergents including laundry powders, laundry liquids, dishwashing liquids and other household cleaners.

- It is used in anionic specialty formulations
- In other industries such as textile industries, it is used as a mercerising or washing agent
- It is used to increase the surface area of distempers
- As main active matter in all forms of Detergents like Cake, Powder and Liquid formulations
- As emulsifier and wetting agent in small quantity with other surfactants in Toilet soaps for foaming
- In Pesticides to improve the quality of spray

Market Outlook

Rapidly growing dish washing liquid demand across the globe, particularly due to positive growth indicators in the food & beverage industry is another factor boosting the global linear alkylbenzene sulfonate market size in the recent years. As dish washing liquid is essentially required in the food & beverage sector. Linear alkylbenzenes sulfonate (LAS) belongs to the family of organic compounds. Linear alkylbenzenes
sulfonate is generally produced from sulfonation reaction of linear alkylbenzene (LAB). The characteristic properties of linear alkylbenzenes sulfonate mainly depends upon the purity of linear alkylbenzene and sulfonation technology used for LAS production.

Changing lifestyle and shifting preference towards the environmental-friendly products have led to significant rise in the demand for linear alkylbenzene sulfonate-based personal care products and detergents. Increasing demand for detergents and cleaners in order to maintain hygiene standard has resulted into increase in demand for linear alkylbenzene sulfonate. Furthermore, industrial norms pertaining to the hygiene standard in the food & beverage, pharmaceutical, healthcare, chemicals and many other industries have led to increase in demand for detergents for industrial cleaning application, which subsequently results into increase in demand for the linear alkylbenzene sulfonate market. Moreover, rising consumer spending, improved lifestyle and increasing demand for personal care products across the globe help to increase the demand for linear alkylbenzene sulfonate. Apart from this, availability of alternative synthetic chemicals and pricing advantage over the linear alkylbenzene sulfonate-based products may hamper the growth of the market.

The global linear alkylbenzene sulfonate is mainly dominated by the Asia Pacific (APAC) region and is expected to boost the demand for linear alkylbenzene sulfonate over the forecast period, owing to increasing population coupled with growing lifestyle, increasing per capita expenditure and increasing demand for personal care products. Rapid urbanization, industrial growth and changing consumer preference towards environmental-friendly surfactant & detergents help to drive the linear alkylbenzene sulfonate market in APAC and is expected to register significant growth over the forecast period.

Linear alkylbenzene sulfonic acid (LABSA) is the largest-volume synthetic surfactant because of its relatively low cost, good performance. LAB is straight chained and can be dried to a stable powder, which are biodegradable. LAB is also required for the manufacturing of LABSA and linear alkylbenzene sulfonate (LAS), which comprises the largest global share in synthetic surfactant sector. About 83-87% of LAS is being used in household detergents, dishwashing liquids, laundry liquids, laundry powders, and other household cleaners.

LABSA industry has low technology barrier and is labor intensive industry. Currently, there are many producing companies in the world LABSA industry. The main market players are Ho Tung, CEPSA, Sasol, KAPACHIM, Stepan, New India Detergents, ISU Chemical and Nanjing Gige. The production of LABSA increased to 3211.81 MT in 2016 from 2756.30 MT in 2012 with average growth rate of 3.90%. Global LABSA capacity utilization rate remained at around 73% in 2016.

**The major players in global Linear Alkyl Benzene Sulphonic Acid market include:**

- CEPSA
- Sasol
- KAPACHIM
- Stepan
- SK
- Fogla Group
- New India Detergents
- ISU Chemical
- Solvay
- Dada Surfactants
- Huntsman
- Kao
- Tufail
- Hansa Group
About 82–87% of LAS is used in household detergents, including laundry powders, laundry liquids, dishwashing liquids, and other household cleaners. Industrial, institutional, and commercial cleaners account for most of the other applications, but LAS is also used as an emulsifier (e.g., for agricultural herbicides and in emulsion polymerization) and as a wetting agent. Very small volumes are also used in personal care applications. Demand in the North American household segment fell sharply in 2000–11, as a result of several developments, including reformulations away from LAS to alternative surfactants because of cost considerations, the greater use of enzymes, and adverse economic conditions that resulted in lower overall surfactant levels in detergents.

Tags
Production of Linear Alkyl Benzene Sulphonic Acid (LABSA), Production of Linear Alkybenzene Sulfonic Acid (LAS), Linear Alkylbenzene Sulfonic Acid, LAB-LAS Production, LABSA, Linear Alkyl Benzene, Manufacturing Process of Linear Alkyl Benzene Sulphonic Acid, Linear Alkyl Benzene Production Process, Linear Alkylbenzene Sulfonate Manufacturing Process, Linear Alkyl Benzene Process Flow Diagram, Linear Alkyl Benzene Sulphonic Acid (LABSA), LABSA Manufacturing Process Pdf, Linear Alkyl Benzene Sulphonic Acid Specification, Linear Alkyl Benzene Uses, Linear Alkyl Benzene Sulphonation Process, Linear Alkyl Benzene Sulphonic Acid, Linear Alkylbenzene Sulphonate (LAS), Industrial Chemicals, Sulfonic Acid, Project Profile on Linear Alkyl Benzene, Manufacturing Process of Linear Alkyl Benzene Sulphonic Acid, Linear Alkyl Benzene Manufacture, Linear Alkyl Benzene Sulphonic Acid Industry, Linear Alkylbenzene & Sulphonate, LAB Industry, Project Report on Linear Alkylbenzene Sulphonate Manufacturing Industry, Detailed Project Report on Linear Alkylbenzene Sulfonate Manufacturing, Project Report on Linear Alkylbenzene Sulfonate Manufacturing, Pre-Investment Feasibility Study on Linear Alkylbenzene Sulphonate Production, Techno-Economic Feasibility Study on Linear Alkylbenzene Sulphonate Production, Feasibility Report on Linear Alkylbenzene Sulfonate Production, Free Project Profile on Linear Alkylbenzene Sulfonate Manufacturing, Project Profile on Linear Alkylbenzene Sulfonate Manufacturing, Download Free Project Profile on Linear Alkylbenzene Sulfonate Manufacturing

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