

## ***PROJECT PROFILE***

**Product Name** : **LABSA (96%)**  
(Linear Alkyl Benzene Sulfonic Acid),

### **Product Specifications:**

Appearance	Brown liquid
Active Matter	96.0% min
Acid Value	180 - 190
Free Oil	1.5% max
Water	1.0% max
Color, Klette	70 max (5% Sol. pH=7, 40mm cell)
Free Sulfuric Acid	1.5% max

It is commercially available with the following specifications.

### **Characteristics**

LABSA,% by wt.	96 nominal
Colour Klett of 10% Solution	100 nominal
Free acid, % max.	2.0
NDOM, % by wt. Max.	1.0

### **PROCESS DESCRIPTION**

LINEAR ALKYL BENZENE SULFONIC ACID is the largest-volume synthetic anionic 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. It is produced by the sulphonation of linear alkylbenzene with sulphuric acid. Other sulphonation alternative reagents are Oleum, diluted sulphur trioxide, chlorosulphonic acid and sulphamic acid. Surfactants are widely used in the industry needed to improve contact between polar and non-polar media such as between oil and water or between water and minerals. It is mainly used to produce household detergents including laundry powders, laundry liquids, dishwashing liquids and other household cleaners as well as in numerous industrial applications like as a coupling agent and as an emulsifier for agricultural herbicides and in emulsion polymerization.

## **LIST OF EQUIPMENT:**

- 1. Storage Tanks**
- 2. Reactors with Accessories**
- 3. Circulation Pumps**
- 4. Filters for LABSA,**
- 5. Hydrolysers**
- 6. Reactor Cooling Arrangements**
- 7. Pumps**
- 8. Piping and Valves**
- 9. Instruments Panel**
- 10. Product Storage Tanks with Lining**
- 11. Exhaust Gas Cleaning**

## **Areas of Application:**

Household detergents including laundry powders, laundry liquids, dishwashing liquids and other household cleaners. Industrial applications of wetting agent, emulsifier for agricultural herbicides and in polymerization.

**Production Capacity** : **25M.Tons / Day**

**Inputs** : **Per ton of Product**  
a) **Raw Material** : **H<sub>2</sub>SO<sub>4</sub> - 1 M.Ton / M.Ton**  
**LAB - 0.740 M.Ton / M.Ton**

### **b)Utilities**

**Power** : **50 KWh/ M.Ton**

**c) pace Requirement** : **1000 Sq. m.**