

Technical Data Sheet

Linear AlkylBenzene (LAB)

Linear alkylbenzene (LAB) was introduced in the mid-1960s as a raw material for cleaning products. Since then, continuing and explosive research on its biodegradation and on its environmental and human toxicity has been performed. The efficiency of linear alkylbenzene sulfonate as surfactant is clearly established, and it is one of the safest and most cost-effective products in widespread commercial use. The aim of the present paper is to survey the most important developments and understandings of the chemistry of LAB production and of its physical and environmental properties. The expected consequence of this analytical survey is to envisage the continuous challenges for the detergents industry in catalytic production of LAB, better control of selectivity, replacement of corrosive and mineral liquid acid catalyst by heterogeneous acid catalyst and the maintenance of competitiveness of LAB with respect to natural alcohols.

Applications:

This product is used as the main and basic material in factories that produce detergents and hygiene products.

PROPERTY	UNIT	TEST METHOD	SPECIFICATION
T.N.P	WT%	UOP 698	0.5 max
LAB 9	WT%	UOP 698	<1
LAB 10	WT%	UOP 698	15 max
LAB 11	WT%	UOP 698	24-44
LAB 12	WT%	UOP 698	22-36
LAB 13	WT%	UOP 698	17-27
LAB 14	WT%	UOP 698	<1
TOTAL LAB	WT%	UOP 698	92 min
Non LAB	WT%	UOP 698	<7
LAB 14+	WT%	UOP 698	0.5 max
HAB	WT%	UOP 698	—
A.M.W	---	UOP 698	238-244
2-PHENYL %	WT%	UOP 698	20 max
Br.INDEX	Mg/100g	ASTM D1492	10 max
WATER	Ppm	ASTM D6304	200 max
Refractive.index	—	ASTM D1218	1.4800-1.4900
Density(15.6°C)	gr/cm ³	ASTM D4052	0.8550-0.870
Tetraline	WT%	ECOSOL METHOD	1 max
Dr Test	---	ASTM D484	Negative
SULFONABILITY	%	UOP-429	98 min
COLOUR	SYB	ASTM D156	29 min
VISCOSITY(40 °C)	CP	ASTM D444	<10