

PetreLAB 500-Q

Identification¹

CAS number: 67774-74-7

EC number: 267-051-0

Description

PetreLAB 500-Q is a linear alkylbenzene (LAB) resulting from the catalytic alkylation of benzene with olefins. It is a mixture of C10-C13 homologues with a high content of 2-phenyl isomers (27-31%) and a lower molecular weight than its counterpart PetreLAB 550. It is produced using the Detal Flex 2-Phenyl technology.

Application

PetreLAB 500-Q is mainly used as a raw material to produce Linear Alkylbenzene Sulfonic Acid (LABSA) through sulfonation reaction, which is then neutralized to produce sodium linear alkylbenzene sulfonate (LAS), the main anionic surfactant used for the formulation of biodegradable detergents. It is also used in dishwashers and other household cleaners, as well as in a wide range of applications in other industries.

Typical properties

Property	Unit	Method	Typical Value
Density @ 15°C	g/ml	ASTM D 4052	0.86
Saybolt Colour		ASTM D 156	30
Bromine Index	mg/100g	ASTM D 2710	1
Carbon chain distribution	%wt	UOP 673	
<5 phenyl C10			1.3
phenyl C10			17
phenyl C11			42
phenyl C12			36
phenyl C13			4
phenyl C14			0.1
>phenyl C14			0.1
2 phenyl alkanes	%wt	UOP 673	28
Total linear alkylbenzene		UOP 673	>90
Total branched alkylbenzene		UOP 673	<10
Molecular weight	g/mol	UOP 673	235
Paraffins	%wt	UOP 673	≤0.1
Tetralins and Indans	%wt	EN 13405	<0.5
Water	ppm	UOP 481	<50
Viscosity @ 40°C	cSt	ASTM D 445	3.2
Flash point	°C	ASTM D 93	128
Sulfonability	%wt	LSC_CQPM 704	98.5
Refractive index @ 20°C		ASTM D 1218	1.482
Acid wash test	% T		45

The sodium sulfonate obtained in the neutralization of the sulphonic acid derived from PetreLAB 500-Q complies with biodegradability requirements laid down in C.E detergent regulation CE n° 648/2004.

*All the data provided does not imply the replacement of the Moeve Specification Sheets or Safety Sheets

¹ For the latest updates on these numbers, please consult the safety data sheet available at: chemicals.moeveglobal.com

Standard packaging

Available in trucks, flexitanks 20ft, isotanks, railcars and bulk vessels.

Storage and handling

Store in accordance with local regulations. Carbon steel is preferred for pipes and storage in contact with PetreLAB 500-Q. For more information, refer to the Safety Data Sheet.

Health and safety

Refer to the Material Safety Data Sheet (MSDS).