

## Certificate of Analysis

<b>Product</b>	Toluene	<b>Batch No.</b>	: 21 06 0313
<b>Grade</b>	HPLC	<b>Manufacturing date</b>	: 16/06/2021
<b>Code No.</b>	LC1347	<b>Best before</b>	: 06/2025

Items	Descriptions	Specifications		Test Results
1	Assay (by GC.)	99.8%	min.	99.8%
2	Appearance	Clear and colorless liquid		Clear and colorless liquid
3	Identity (IR)	Passes test		Passes test
4	Color (APHA)	10	max.	< 10
5	Water (by Coulometry)	0.01%	max.	0.006%
6	Acidity (mEq./g.)	0.0002	max.	< 0.0002
7	Alkalinity (mEq./g.)	0.0004	max.	< 0.0004
8	Residue on Evaporation	0.0005%	max.	< 0.0005%
9	Sulfur Compounds (S)	0.003%	max.	< 0.003%
10	Substances darkened by sulfuric acid	Passes test		Passes test
11	UV Transmission Levels (%T)			
	350 nm	99%	min.	99.9%
	330 nm	98%	min.	99.5%
	310 nm	90%	min.	98.7%
	300 nm	80%	min.	97.1%
	290 nm	50%	min.	89.1%
12	Fluorescence (as quinine)			
	at 365 nm	2 ppb	max.	< 2 ppb

Product passed through 0.2 micron final filter.

This is to certify the above batch has been tested and complies with this specification.

Ladaphan  
Chemist

Achan  
Technical Manager