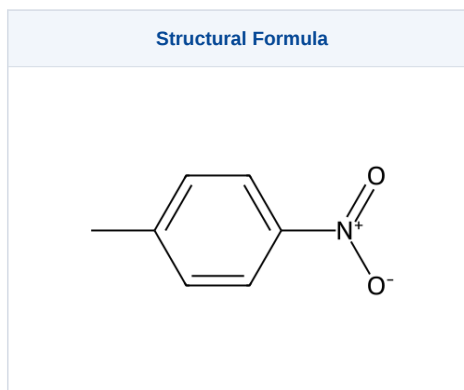


CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

Product Name	4-Nitrotoluene
C.A.S. Number	99-99-0
Molecular Formula	C ₇ H ₇ NO ₂
Molecular Weight	137.14
Grade / Standard	≥99% Technical
Physical Form	Yellow crystalline solid
Product Category	Dyes & Dye Intermediates
Country of Origin	India



ANALYTICAL RESULTS

S. No.	Test Parameter	Specification	Result	Method
1	Description	Yellow crystalline solid	Complies	Visual
2	Identification	Conforms to the structure of the substance	Complies	FTIR / Chemical test
3	Solubility	As per specification	Complies	Visual / Monograph
4	Assay	Not less than 99.0 % w/w	99.36	Spectrophotometry
5	Shade	Matching approved standard	Matches standard	Visual / Spectrophotometric
6	Strength vs. Standard	100 ± 3 %	101.5 %	Spectrophotometry
7	Moisture	Not more than 5.0 % w/w	1.35	Gravimetry
8	Matter Insoluble in Water	Not more than 1.0 % w/w	0.267	Gravimetry
9	Solubility in Water at 60 °C	Not less than 80 g/L	114 g/L	In-house method
10	Light Fastness (ISO 105-B02)	Grade 5 – 6 minimum	Grade 6	ISO 105-B02
11	Wash Fastness (ISO 105-C06)	Grade 4 – 5 minimum	Grade 5	ISO 105-C06
12	Structure	Conforms to reference structure	Complies	FTIR / NMR

Remarks

Material supplied against this specification is analysed on every production lot and **conforms** to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade.

Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.

Checked and Approved by

Prem Panchal
Quality Assurance
Scapex Exports Pvt. Ltd.

This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.