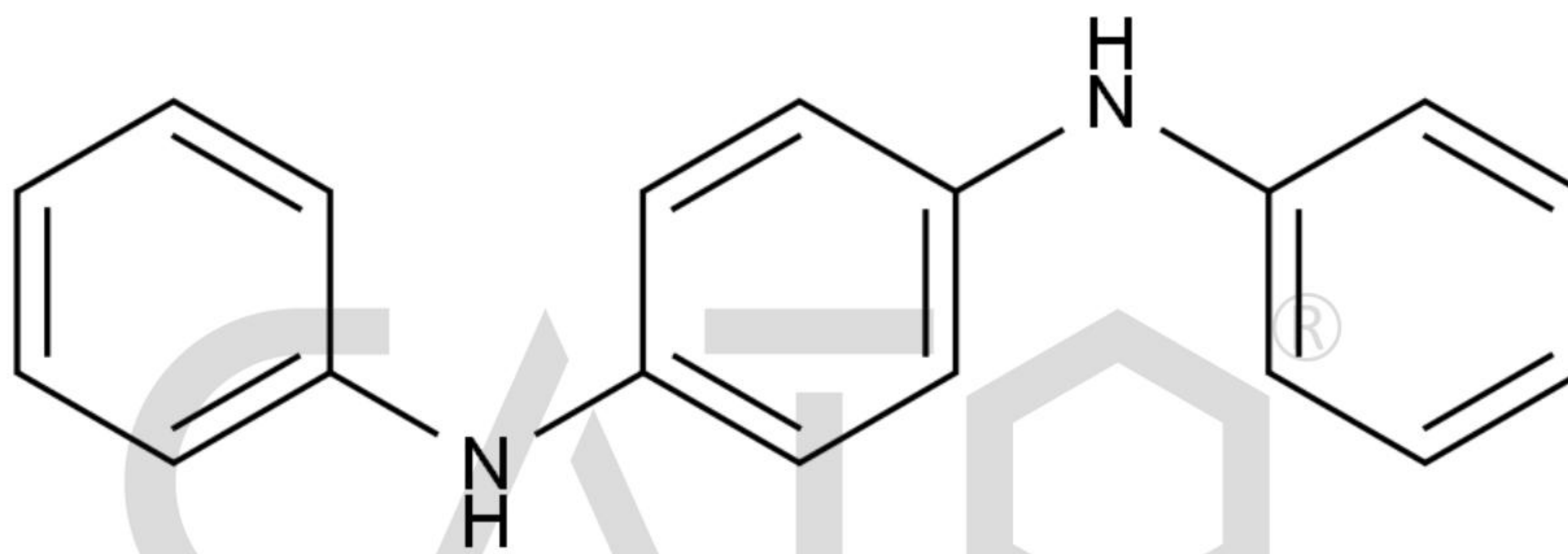


Certificate of Analysis

Reference Material & Standard

Product Name:	N,N'-Diphenyl-1,4-phenylenediamine	Catalogue Number:	CCHM704165
Synonyms:	N/A	Lot Number:	0622-RD-0046
CAS Number:	74-31-7	Expiry Date:	Aug 17, 2029
Molecular Formula:	C18H16N2	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	260.33	Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Dark Grey Solid
Identification	GCMS&HNMR	Confirmed
Purity	HPLC	96.814%
Loss On Drying	TGA	0.0498%
Assay		96.8%
Uncertainty		±0.6%

Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Loss On Drying) * Purity HPLC (%) / 100%

Loss On Drying is considered as absolute effect, HPLC purity is considered as relative effect.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Lisa

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Aug 18, 2025

Date: Aug 18, 2025

Date: Aug 18, 2025

