



CERTIFICATE OF ANALYSIS

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1. Identification

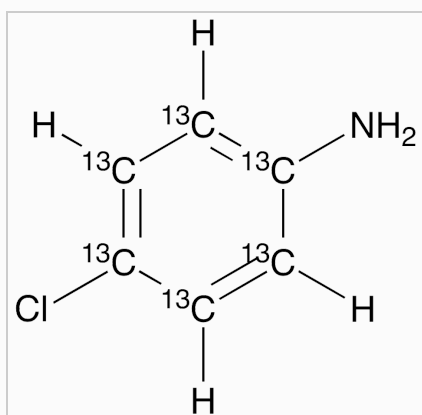
Catalogue Number: C377502

CAS Number: 89059-39-2

Product: 4-Chlorophenylamine- $^{13}\text{C}_6$

Synonym: p-Aminochlorobenzene- $^{13}\text{C}_6$; p-Chloroaniline- $^{13}\text{C}_6$; 4-Chloro-1-aminobenzene- $^{13}\text{C}_6$; 4-Chloroaniline- $^{13}\text{C}_6$; 4-Chlorobenzenamine- $^{13}\text{C}_6$; 4-Amino-1-chlorobenzene- $^{13}\text{C}_6$; 4-Aminochlorobenzene- $^{13}\text{C}_6$; 1-Amino-4-chlorobenzene- $^{13}\text{C}_6$; NSC 36941- $^{13}\text{C}_6$;

Structure:



Molecular Formula:

$^{13}\text{C}_6\text{H}_6\text{ClN}$

Molecular weight:

133.53

Source of Product:

N/A

Solubility:

Chloroform (Slightly),
Methanol (Slightly)

Lot Number: 6-CGS-100-1

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

2. Warning

Warning 1: Not Determined

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Pale Beige to Pale Brown Solid	Pale Brown Solid
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
HPLC Purity	>95%	99.58% (238 nm)
Isotopic Purity	>95%	99.1%
C NMR	Conforms to Structure	Conforms

Additional Information:

TLC Conditions: SiO_2 ; Hexanes : Ethyl Acetate = 6 : 4; Visualized with UV and KMnO_4 ; Single Spot, $R_f = 0.40$. Normalized Intensity: $^{13}\text{C}_0 = 0.00\%$, $^{13}\text{C}_1 = 0.32\%$, $^{13}\text{C}_2 = 0.11\%$, $^{13}\text{C}_3 = 0.14\%$, $^{13}\text{C}_4 = 0.27\%$, $^{13}\text{C}_5 = 2.51\%$, $^{13}\text{C}_6 = 96.64\%$

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By

Wen Fu



Reviewed By

Neha Khanna



**C of A Approved
By**

My Nguyen



Test Date

12/19/2019

Retest Date

12/17/2026