



CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA
Tel: (416) 665-9696, Fax: (416) 665-4439
Email: orders.trc@lgcgroup.com Website: www.trc-canada.com

1. Identification

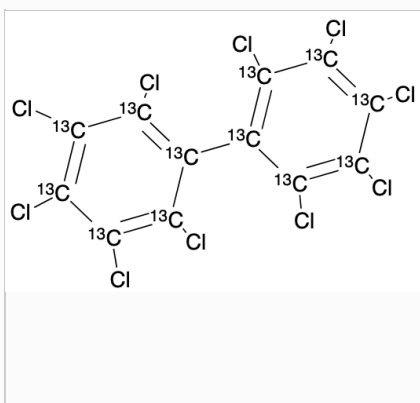
Catalogue Number: P216692

CAS Number: 105600-27-9

Product: PCB 209-13C12

Synonym: 2,2',3,3',4,4',5,5',6,6'-Decachloro-1,1'-biphenyl-1,1',2,2',3,3',4,4',5,5',6,6'-13C12; 13C12-DeCB; 13C12-Decachlorobiphenyl; 13C12-PCB 209

Structure:



Molecular Formula:

$^{13}\text{C}_{12}\text{Cl}_{10}$

Molecular weight:

510.57

Source of Product:

Synthetic

Solubility:

Chloroform (Sparingly),
Dichloromethane (Slightly),
Methanol (Slightly)

Lot Number: 5-MPT-157-7

Purity: 95%

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

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Off-White to Pale Brown Solid	Off-White to Pale Beige Solid
GC Purity	Report Result	95.26%
NMR	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
Isotopic Purity	>95%	98.0%
MS	Conforms to Structure	Conforms

Additional Information:

Observed Intensity: $^{13}\text{C}0 = 0.03\%$, $^{13}\text{C}1 = 0.00\%$, $^{13}\text{C}2 = 0.00\%$, $^{13}\text{C}3 = 0.03\%$, $^{13}\text{C}4 = 0.00\%$, $^{13}\text{C}5 = 0.01\%$, $^{13}\text{C}6 = 0.00\%$, $^{13}\text{C}7 = 0.00\%$, $^{13}\text{C}8 = 0.00\%$, $^{13}\text{C}9 = 0.00\%$, $^{13}\text{C}10 = 10.99\%$, $^{13}\text{C}11 = 0.00\%$, $^{13}\text{C}12 = 85.82\%$

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	Reviewed By	C of A Approved By	Test Date	Retest Date
Sarbjeet Kaur	Toni Rantanen	Chanell Chu	5/24/2023	5/22/2027

