

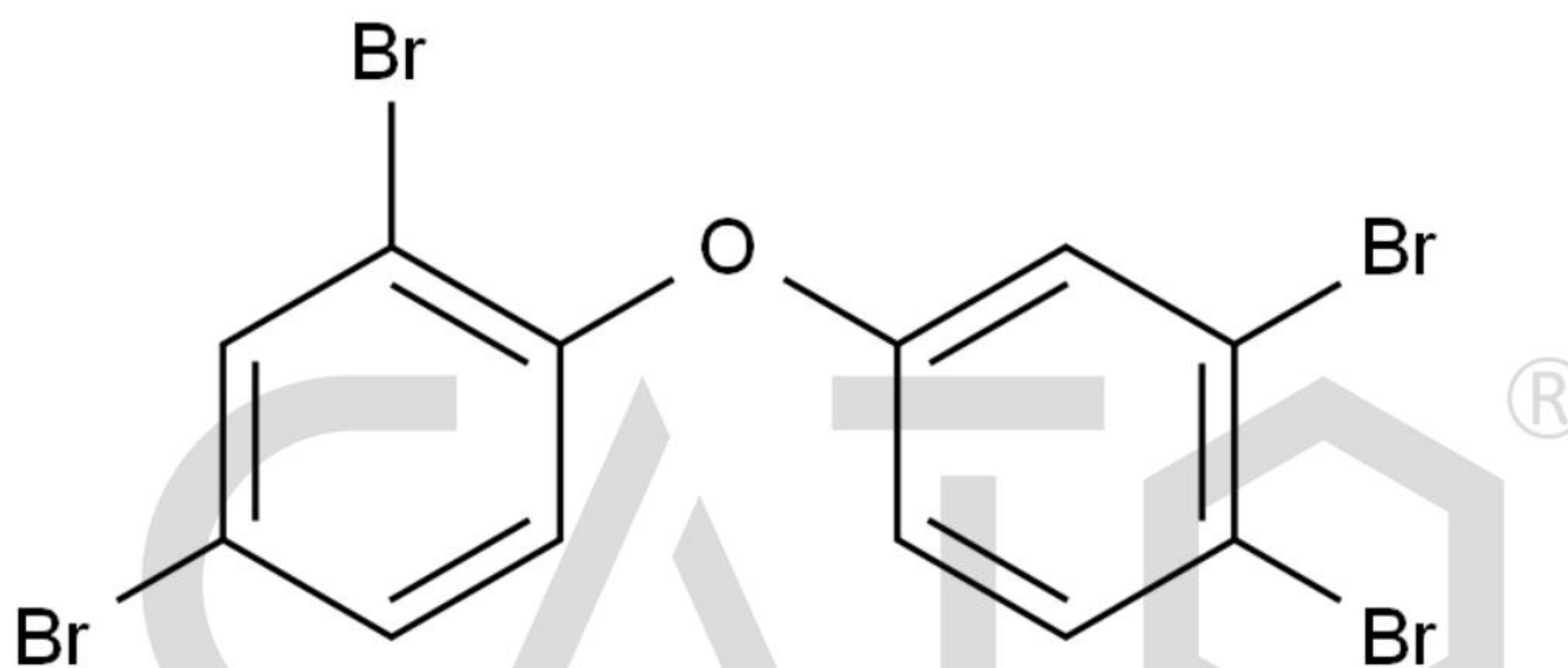
Certificate of Analysis

Reference Material & Standard

Product Name:	2,3',4,4'-Tetrabromodiphenyl Ether	Catalogue Number:	CWLT600796
Synonyms:	N/A	Lot Number:	0403-RE-0005
CAS Number:	189084-61-5	Expiry Date:	Feb 20, 2026
Molecular Formula:	C ₁₂ H ₆ Br ₄ O	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	485.79	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Brown Solid
Identification	GCMS&IR&HNMR	Confirmed
Purity	HPLC	97.2417%
Water Content	Karl Fischer	0.1%
Residual Solvents	NMR	0.2% tetrahydrofuran and 0.8% acetonitrile
Assay		96.2%
Uncertainty		±2.0%

Comment:

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

$\text{Assay (\%)} = (100\% - \text{Water Content} - \text{Residual Solvents}) * \text{Purity HPLC (\%)} / 100\%$

Water Content and Residual Solvents are 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:

Xenia

Approved by General Manager:

David

Date: Feb 21, 2023

Date: Apr 10, 2023

Date: Apr 10, 2023

