

Certificate of Analysis

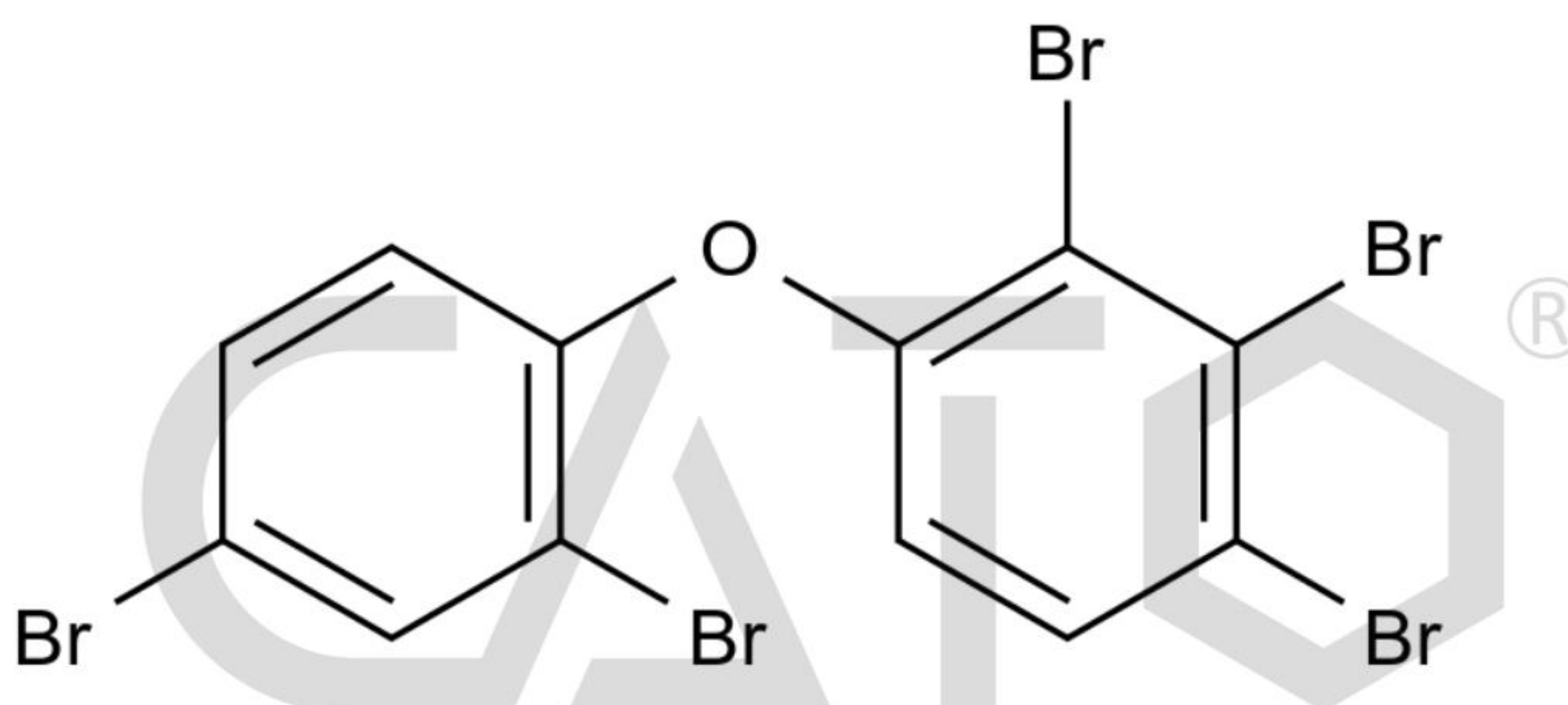
Reference Material & Standard

Product Name:	2,2',3,4',4-Pentabde	Catalogue Number:	CCEM501862
Synonyms:	N/A	Lot Number:	0413-RE-0013
CAS Number:	182346-21-0	Expiry Date:	Apr 02, 2026
Molecular Formula:	C ₁₂ H ₅ Br ₅ O	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	564.69	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White to Off-White Solid
Identification	GCMS&IR&HNMR	Confirmed
Purity	HPLC	98.2690%
Water Content	Karl Fischer	0.1%
Residual Solvents	NMR	0.1% methanol
Assay		98.1%
Uncertainty		±2.0%

Comment:

1. The calculation of the mass balance 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:

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Reviewed by:

Xenia

Approved by General Manager:

David

Date: Apr 03, 2023

Date: Apr 14, 2023

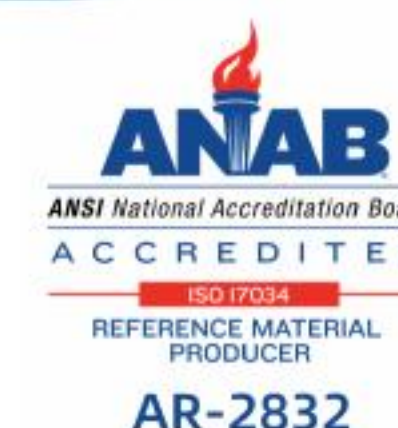
Date: Apr 14, 2023

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