

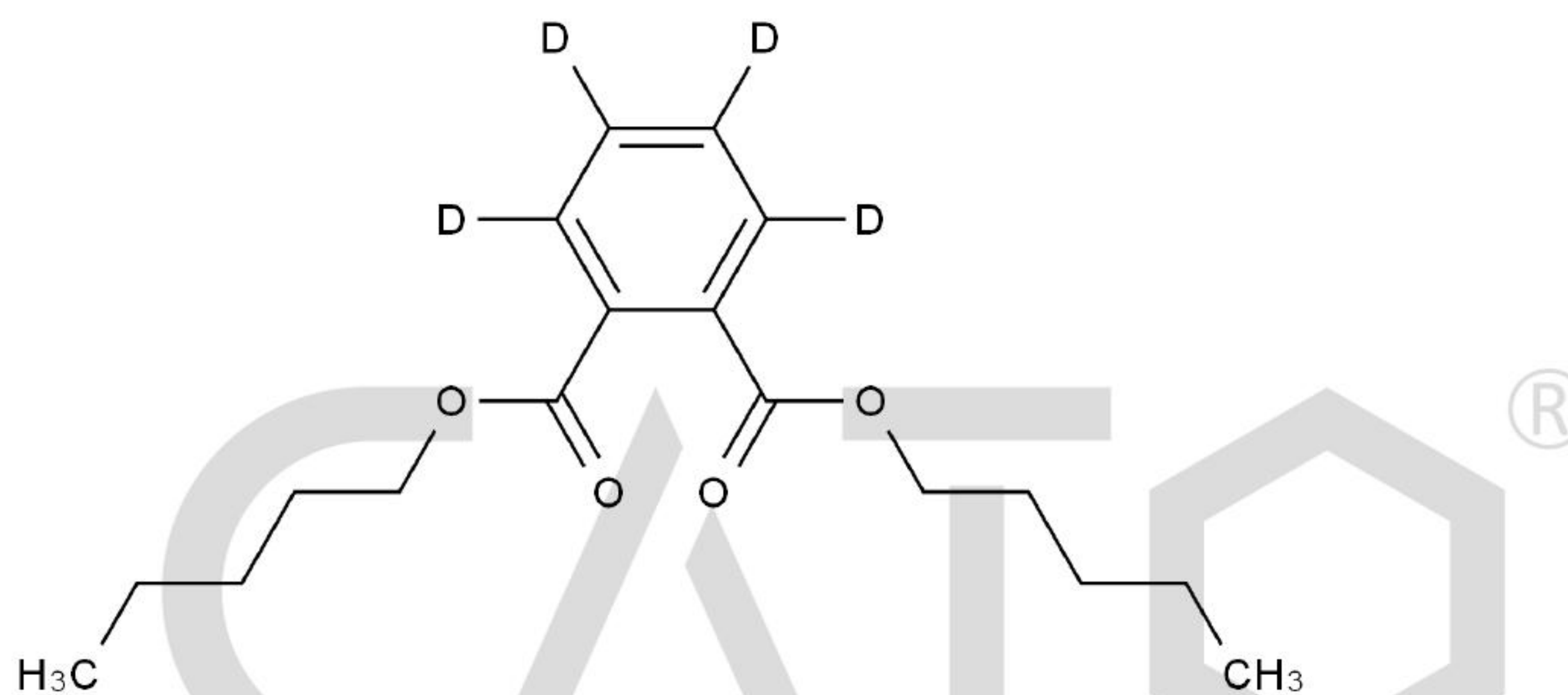
Certificate of Analysis

Reference Material & Standard

Product Name:	Diphenyl phthalate-3,4,5,6-d4	Catalogue Number:	CPAE111789
Synonyms:	N/A	Lot Number:	1113-RE-0058
CAS Number:	358730-89-9	Expiry Date:	Nov 14, 2029
Molecular Formula:	C18H22D4O4	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	310.42	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Liquid
Identification	LCMS&HNMR	Confirmed
Chemical Purity	HPLC	99.836%
Isotopic Purity		98.9%
Loss On Drying	TGA	0.1440%
Assay		99.7%
Uncertainty		±2.0%

Comment:

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

$$\text{Assay (\%)} = (100\% - \text{Loss On Drying}) * \text{Purity HPLC (\%)} / 100\%$$

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:

Nice

Reviewed by:

Lisa

Aproved by General Manager:

David

Date: Nov 15, 2023

Date: Nov 15, 2023

Date: Nov 15, 2023

