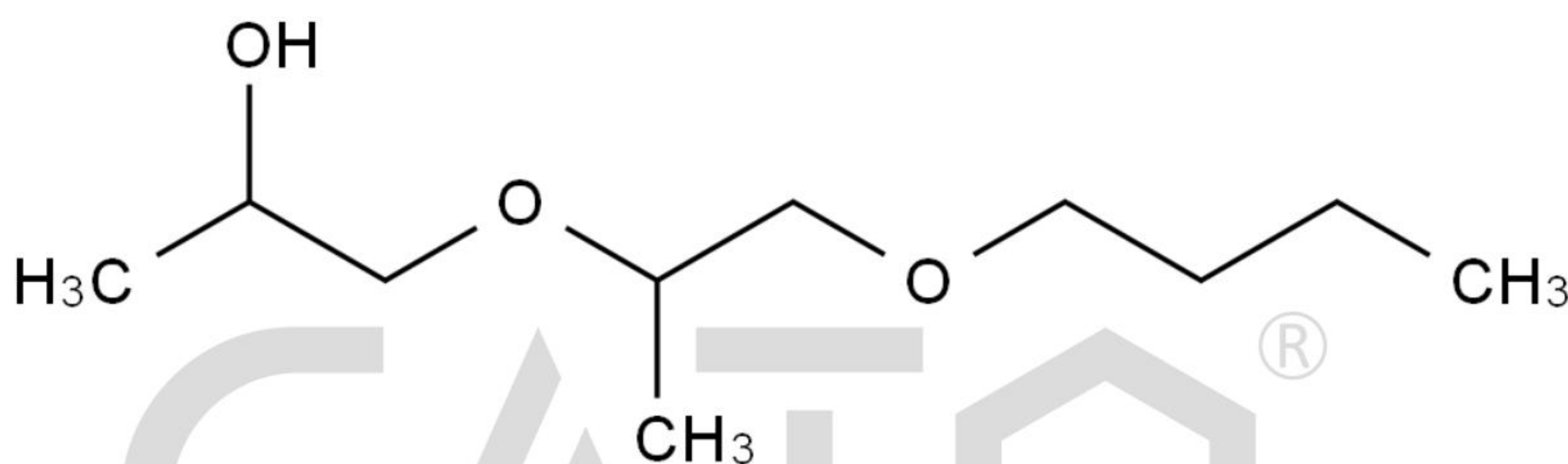


Certificate of Analysis

Reference Material & Standard

Product Name:	Di(propylene glycol) butyl ether	Catalogue Number:	CCHM702851
Synonyms:	N/A	Lot Number:	0531-RC-0010
CAS Number:	29911-28-2	Expiry Date:	Jul 29, 2029
Molecular Formula:	C ₁₀ H ₂₂ O ₃	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	190.28		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Oil
Identification	GCMS&HNMR	Confirmed
Purity	GC	98.121%
Water Content	Karl Fischer	0.1519%
Assay		98.0%
Uncertainty		±0.4%

Comment:

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

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

Water Content is considered as absolute effect, GC 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:

Hin Lam

Approved by General Manager:

David

Date: Jul 30, 2025

Date: Jul 30, 2025

Date: Jul 30, 2025

