

Certificate of Analysis

Reference Material & Standard

Product Name:	1,1,1,3,3-Pentafluorobutane	Catalogue Number:	CCHM704424
Synonyms:	N/A	Lot Number:	0829-RD-0065
CAS Number:	406-58-6	Expiry Date:	Jan 19, 2030
Molecular Formula:	C ₄ H ₅ F ₅	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	148.07	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Liquid
Identification	GCMS&FNMR&HNMR	Confirmed
Purity	GC	99.962%
Water Content	Karl Fischer	0.0707%
Assay		99.9%
Uncertainty		±0.2%

Comment:

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

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

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: Jan 20, 2026

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Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

Web: <https://www.cato-chem.com>

