**No.: 202509100005**

# Certificate of Analysis

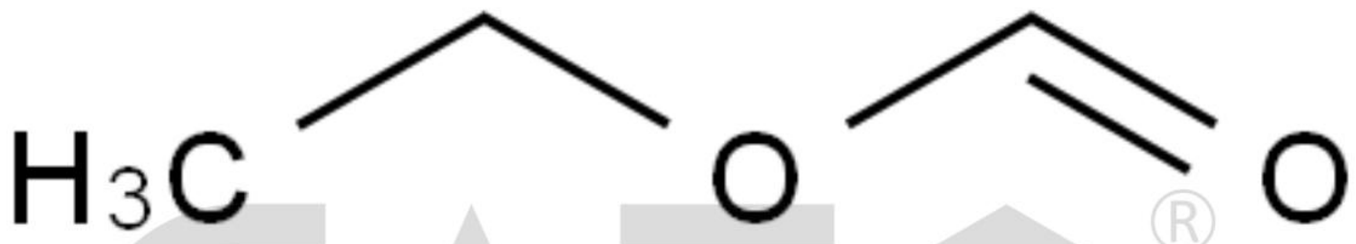
## Reference Material & Standard

| | | | |
|---|---|---|---|
| **Product Name:** | Formic Acid Ethyl Ester | **Catalogue Number:** | CCFD200132 |
| **Synonyms:** | N/A | **Lot Number:** | 1009-RF-0073 |
| **CAS Number:** | 109-94-4 | **Expiry Date:** | Oct 08, 2028 |
| **Molecular Formula:** | $C_3H_6O_2$ | **Storage:** | 2°C ~ 8°C Protected from light and Sealed |
| **Molecular Weight:** | 74.08 | | |

**Warning:**



**Chemical Structure:**




| Test Items | Method | Results |
|---|---|---|
| **Appearance** | Visual inspection | Colourless Liquid |
| **Identification** | GCMS&IR&UV&HNMR | Confirmed |
| **Purity** | GC | 98.192% |
| **Water Content** | Karl Fischer | 0.2961% |
| **Assay** | | 97.9% |
| **Uncertainty** | | ±0.4% |

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## Comment:

*1. The calculation of the mass balance method follows the formula (calculated on the non-dried basis):*
*Assay (%) = (100%-Water Content) * 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: Alice Date: Sep 16, 2025

Reviewed by: Lisa Date: Sep 16, 2025

Approved by General Manager: David Date: Sep 16, 2025

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