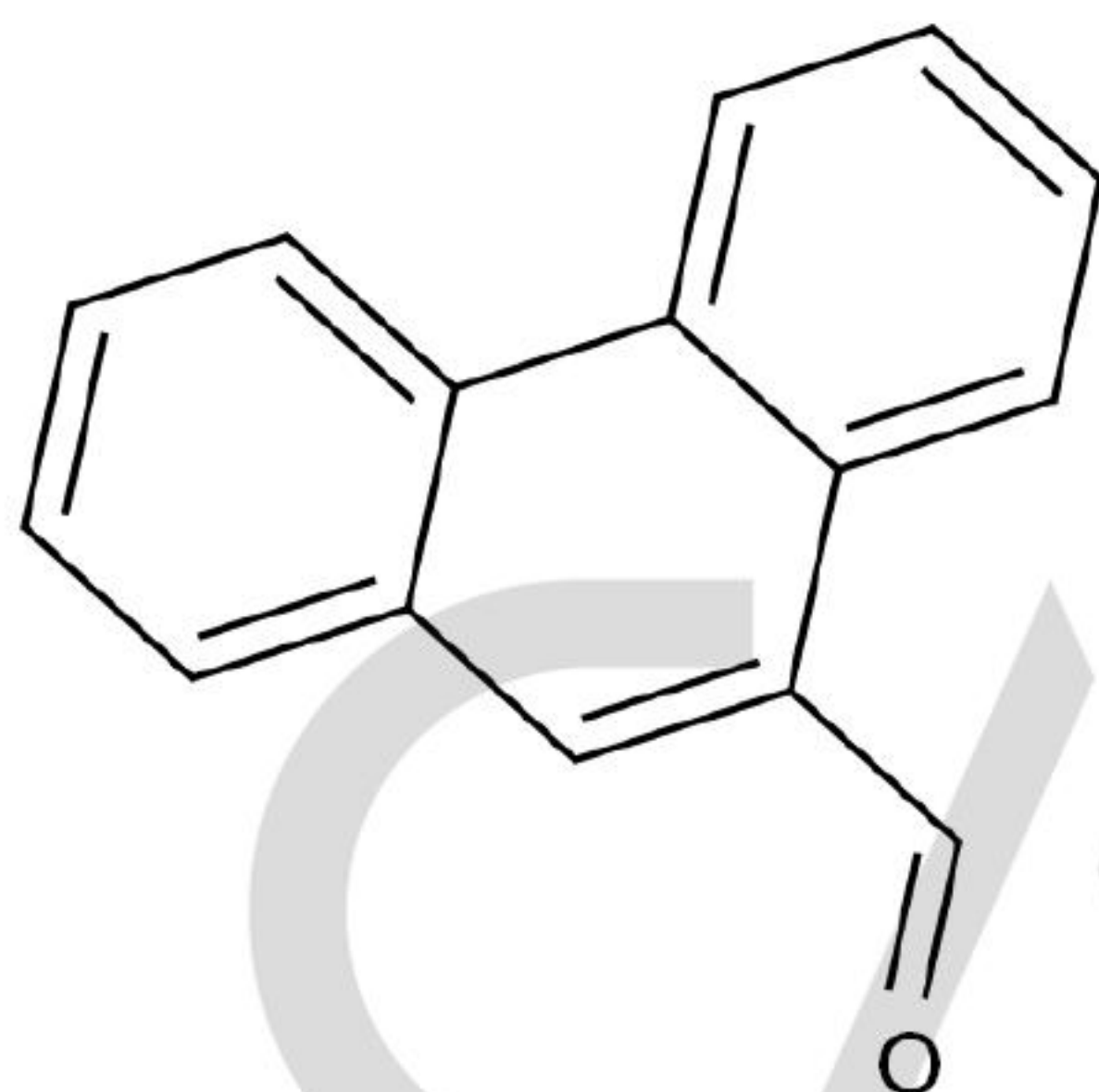


Certificate of Analysis

Reference Material & Standard

Product Name:	9-Phenanthrenecarboxaldehyde	Catalogue Number:	CCHM700136
Synonyms:	N/A	Lot Number:	1211-RG-0087
CAS Number:	4707-71-5	Expiry Date:	Dec 10, 2029
Molecular Formula:	C ₁₅ H ₁₀ O	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	206.24	Shipping Condition:	Shipping at Room Temperature
Solubility:	Acetonitrile		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	97.131%
Loss On Drying	TGA	0.0505%
Assay		97.1%
Uncertainty		±0.5%

Comment:

1. The calculation of the mass balance 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:

Hinlam

Approved by General Manager:

David

Date: Dec 11, 2025

Date: Dec 12, 2025

Date: Dec 12, 2025

